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results-cpu-tesseract

Intel Core i7-9750H testing with a Notebook P95_96_97Ex Rx (1.07.13MIN29 BIOS) and NVIDIA GeForce RTX 2060 6GB on Ubuntu 18.04 via the Phoronix Test Suite.

Test Systems:

Samsung SSD 970 EVO Plus 1TB

Processor: Intel Core i7-9750H @ 4.50GHz (6 Cores / 12 Threads), Motherboard: Notebook P95_96_97Ex Rx (1.07.13MIN29 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 32768MB, Disk: 1000GB Samsung SSD 970 EVO Plus 1TB, Graphics: NVIDIA GeForce RTX 2060 6GB (960/7000MHz), Audio: Realtek ALC1220, Network: Realtek RTL8111/8168/8411 + Intel-AC 9560

OS: Ubuntu 18.04, Kernel: 5.3.0-40-generic (x86_64), Desktop: KDE Plasma 5.12.9, Display Server: X Server 1.19.6, Display Driver: NVIDIA 440.59, OpenGL: 4.6.0, Compiler: GCC 7.4.0 + CUDA 10.1, File-System: ext4, Screen Resolution: 1920x1080

```
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie  
--enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes
```

```
--enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix
--host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-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
Disk Notes: NONE / errors=remount-ro,relatime,rw
Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0xca
OpenCL Notes: GPU Compute Cores: 1920
Java Notes: OpenJDK Runtime Environment (build 11.0.6+10-post-Ubuntu-1ubuntu118.04.1)
Python Notes: Python 2.7.17 + Python 3.6.9
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + 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: conditional RSB filling + tsx_async_abort: Not affected
```

Samsung SSD 970 EVO Plus 1TB

Stress-NG - Crypto (Bogo Ops/s)	1083
Standard Deviation	6%
Stress-NG - Forking (Bogo Ops/s)	42623
Standard Deviation	2.9%
Stress-NG - CPU Stress (Bogo Ops/s)	2308
Standard Deviation	2.4%
Stress-NG - Semaphores (Bogo Ops/s)	3384795
Standard Deviation	3%
Stress-NG - Memory Copying (Bogo Ops/s)	1924
Standard Deviation	0.1%
Stress-NG - Socket Activity (Bogo Ops/s)	3269
Standard Deviation	0.4%
Stress-NG - Context Switching (Bogo Ops/s)	1739081
Standard Deviation	2.1%
Stress-NG - S.V.M.P (Bogo Ops/s)	4914246
Standard Deviation	2.5%
Sysbench - Memory (Events/sec)	21217189
Standard Deviation	1.2%
Sysbench - CPU (Events/sec)	13592
Standard Deviation	2.7%
BlogBench - Read (Final Score)	1421895
Standard Deviation	0.9%
BlogBench - Write (Final Score)	27880
Standard Deviation	8.4%
TTSIOD 3D Renderer - P.R.W.S.S.M (FPS)	266.460
Standard Deviation	0.8%
SVT-AV1 - 1.8.b.Y.T.A.V.E (FPS)	17.791
Standard Deviation	3.4%
SVT-HEVC - 1.8.b.Y.T.H.V.E (FPS)	109.19
Standard Deviation	2.8%
SVT-VP9 - 1.8.b.Y.T.V.V.E (FPS)	29.50
Standard Deviation	2.8%
VP9 libvpx Encoding - v.V.1.V.E (FPS)	113.58
Standard Deviation	2.9%
x264 - H.2.V.E (FPS)	52.71
Standard Deviation	2.9%
x265 - H.2.1.V.E (FPS)	26.10
Standard Deviation	2.4%
HPC Challenge - G-Ptrans (GB/s)	3.48910

	Standard Deviation	0.9%
HPC Challenge - EP-STREAM Triad (GB/s)	1.96191	
	Standard Deviation	0%
HPC Challenge - R.R.B (GB/s)	1.40534	
	Standard Deviation	0.4%
HPC Challenge - G-Ffte (GFLOP/s)	6.01398	
	Standard Deviation	3.2%
High Performance Conjugate Gradient (GFLOP/s)	1.47361	
	Standard Deviation	1%
HPC Challenge - G-HPL (GFLOPS)	129.19867	
	Standard Deviation	0.3%
HPC Challenge - G-Ffte (GFLOPS)	6.01398	
	Standard Deviation	3.2%
HPC Challenge - EP-DGEMM (GFLOPS)	15.41327	
	Standard Deviation	1.1%
HPC Challenge - G-Rand Access (GUP/s)	0.00706	
	Standard Deviation	0.2%
GraphicsMagick - Rotate (Iterations/min)	246	
	Standard Deviation	0.2%
GraphicsMagick - Sharpen (Iterations/min)	96	
	Standard Deviation	2.4%
GraphicsMagick - Enhanced (Iterations/min)	131	
	Standard Deviation	1.3%
GraphicsMagick - Resizing (Iterations/min)	235	
	Standard Deviation	0.5%
Cryptsetup - PBKDF2-sha512 (Iterations/sec)	1695906	
	Standard Deviation	0.9%
Cryptsetup - PBKDF2-whirlpool (Iterations/sec)	1002553	
	Standard Deviation	1.2%
Xsbench (Lookups/s)	1702972	
	Standard Deviation	0.1%
Compile Bench - Compile (MB/s)	2102	
	Standard Deviation	0.8%
Compile Bench - Initial Create (MB/s)	542.18	
	Standard Deviation	0.7%
Compile Bench - Read Compiled Tree (MB/s)	2641	
	Standard Deviation	15.1%
RAMspeed SMP - Add - Integer (MB/s)	25650	
RAMspeed SMP - Copy - Integer (MB/s)	23764	
RAMspeed SMP - Scale - Integer (MB/s)	23602	
RAMspeed SMP - Triad - Integer (MB/s)	25642	
RAMspeed SMP - Average - Integer (MB/s)	24790	
RAMspeed SMP - Add - Floating Point (MB/s)	25767	
RAMspeed SMP - Copy - Floating Point (MB/s)	23756	
RAMspeed SMP - Scale - Floating Point (MB/s)	23795	
RAMspeed SMP - Triad - Floating Point (MB/s)	25785	
RAMspeed SMP - Average - Floating Point (MB/s)	24762	
Stream - Copy (MB/s)	30522	
	Standard Deviation	0.1%
Stream - Scale (MB/s)	21110	
	Standard Deviation	0%
Stream - Triad (MB/s)	23522	

Standard Deviation 0%
Stream - Add (MB/s) 23557
Standard Deviation 0%
Tinymembench - Standard Memcpy (MB/s) 17067
Standard Deviation 1.1%
Tinymembench - Standard Memset (MB/s) 34733
Standard Deviation 3.3%
HPC Challenge - M.P.P.B (MB/s) 12928
Standard Deviation 11.3%
Izbench - XZ 0 - Compression (MB/s) 37
Izbench - XZ 0 - Decompression (MB/s) 109
Izbench - Zstd 1 - Compression (MB/s) 413
Standard Deviation 0.5%
Izbench - Zstd 1 - Decompression (MB/s) 1087
Izbench - Brotli 0 - Compression (MB/s) 431
Izbench - Brotli 0 - Decompression (MB/s) 581
Izbench - Libdeflate 1 - Compression (MB/s) 224
Izbench - Libdeflate 1 - Decompression (MB/s) 1169
CacheBench - Read (MB/s) 3769
Standard Deviation 0%
CacheBench - Write (MB/s) 31604
Standard Deviation 0.1%
CacheBench - R.M.W (MB/s) 32970
Standard Deviation 0.4%
libjpeg-turbo tjbench - D.T (Megapixels/sec) 184.222778
Standard Deviation 0.4%
Sockperf - Throughput (Messages/sec) 523825
Standard Deviation 1.2%
FFTW - Stock - 1D FFT Size 4096 (Mflops) 8669
Standard Deviation 0.7%
FFTW - Stock - 2D FFT Size 4096 (Mflops) 6487
Standard Deviation 0.2%
FFTW - Float + SSE - 1D FFT Size 4096 (Mflops) 47124
Standard Deviation 1%
FFTW - Float + SSE - 2D FFT Size 4096 (Mflops) 24865
Standard Deviation 2.1%
Java SciMark - Composite (Mflops) 2435
Standard Deviation 0.8%
Java SciMark - Monte Carlo (Mflops) 1100
Standard Deviation 0.1%
Java SciMark - F.F.T (Mflops) 1613
Standard Deviation 2.6%
Java SciMark - S.M.M (Mflops) 1709
Standard Deviation 0.2%
Java SciMark - D.L.M.F (Mflops) 6016
Standard Deviation 1.2%
Java SciMark - J.S.O.R (Mflops) 1737
Standard Deviation 0.1%
Himeno Benchmark - P.P.S (MFLOPS) 2996
Standard Deviation 0.7%
MBW - Memory Copy - 128 MiB (MiB/s) 14580
Standard Deviation 0.6%

MBW - Memory Copy - 1024 MiB (MiB/s)	14206
Standard Deviation	0.1%
MBW - Memory Copy - 4096 MiB (MiB/s)	13894
Standard Deviation	1.5%
MBW - Memory Copy - 8192 MiB (MiB/s)	14642
Standard Deviation	0.3%
MBW - M.C.F.B.S - 128 MiB (MiB/s)	9749
Standard Deviation	0.1%
MBW - M.C.F.B.S - 1024 MiB (MiB/s)	9776
Standard Deviation	0%
MBW - M.C.F.B.S - 4096 MiB (MiB/s)	9741
Standard Deviation	0.2%
MBW - M.C.F.B.S - 8192 MiB (MiB/s)	9582
Standard Deviation	0%
Botan - KASUMI - Encrypt (MiB/s)	98.942
Standard Deviation	0.2%
Botan - KASUMI - Decrypt (MiB/s)	95.732
Standard Deviation	0%
Botan - AES-256 - Encrypt (MiB/s)	4222
Standard Deviation	0.2%
Botan - AES-256 - Decrypt (MiB/s)	4234
Standard Deviation	0.3%
Botan - Twofish - Encrypt (MiB/s)	389.836
Standard Deviation	0.5%
Botan - Twofish - Decrypt (MiB/s)	386.155
Standard Deviation	0.9%
Botan - Blowfish - Encrypt (MiB/s)	307.079
Standard Deviation	0.1%
Botan - Blowfish - Decrypt (MiB/s)	307.769
Standard Deviation	0.1%
Botan - CAST-256 - Encrypt (MiB/s)	150.392
Standard Deviation	0.1%
Botan - CAST-256 - Decrypt (MiB/s)	150.400
Standard Deviation	0.1%
7-Zip Compression - C.S.T (MIPS)	30443
Standard Deviation	1.4%
Crafty - Elapsed Time (Nodes/s)	8582908
Standard Deviation	0.2%
Stockfish - Total Time (Nodes/s)	12317944
Standard Deviation	1%
asmFish - 1.H.M.2.D (Nodes/s)	14515853
Standard Deviation	2.9%
Swet - Average (Operations/sec)	785548379
Standard Deviation	0.1%
Memcached mcperf - Add (Operations/sec)	72091
Standard Deviation	0.9%
Memcached mcperf - Get (Operations/sec)	128848
Standard Deviation	0.7%
Memcached mcperf - Set (Operations/sec)	72240
Standard Deviation	0.9%
Memcached mcperf - Append (Operations/sec)	76420
Standard Deviation	0.7%
Memcached mcperf - Delete (Operations/sec)	128767

	Standard Deviation	0.3%
Memcached mcperf - Prepend (Operations/sec)	77272	
	Standard Deviation	0.3%
Memcached mcperf - Replace (Operations/sec)	77094	
	Standard Deviation	0.4%
MariaDB - 1 (Queries/sec)	468	
	Standard Deviation	0.7%
MariaDB - 16 (Queries/sec)	393	
	Standard Deviation	0.2%
MariaDB - 64 (Queries/sec)	347	
	Standard Deviation	0.4%
MariaDB - 256 (Queries/sec)	187	
	Standard Deviation	5.6%
Hierarchical INTegration - FLOAT (QUIPs)	454665326	
	Standard Deviation	0.4%
Hierarchical INTegration - DOUBLE (QUIPs)	1014846999	
	Standard Deviation	0.1%
ebizzy (Records/s)	268749	
	Standard Deviation	4.6%
Redis - LPOP (Req/s)	3188060	
	Standard Deviation	5.7%
Redis - SADD (Req/s)	2555140	
	Standard Deviation	7%
Redis - LPUSH (Req/s)	2000024	
	Standard Deviation	5.3%
Redis - GET (Req/s)	3010105	
	Standard Deviation	5.6%
Redis - SET (Req/s)	2145843	
	Standard Deviation	4.2%
NGINX Benchmark - S.W.P.S (Req/s)	35924	
	Standard Deviation	1.4%
Apache Benchmark - S.W.P.S (Req/s)	25140	
	Standard Deviation	2.8%
PHPBench - P.B.S (Score)	686411	
	Standard Deviation	0.2%
OpenSSL - R.4.b.P (Signs/sec)	1443	
	Standard Deviation	3.3%
CLOMP - Static OMP Speedup (Speedup)	3.52	
	Standard Deviation	0.4%
NAS Parallel Benchmarks - BT.A (Mop/s)	5011	
	Standard Deviation	2.9%
NAS Parallel Benchmarks - EP.C (Mop/s)	268.38	
	Standard Deviation	2.1%
NAS Parallel Benchmarks - FT.A (Mop/s)	8679	
	Standard Deviation	0.4%
NAS Parallel Benchmarks - FT.B (Mop/s)	9097	
	Standard Deviation	3%
NAS Parallel Benchmarks - LU.A (Mop/s)	19249	
	Standard Deviation	0.3%
NAS Parallel Benchmarks - LU.C (Mop/s)	10363	
	Standard Deviation	0.2%
NAS Parallel Benchmarks - SP.A (Mop/s)	3661	
	Standard Deviation	1.8%

PostgreSQL pgbench - Buffer Test - Normal Load - Read Only (TPS)	109781	
Standard Deviation	0.6%	
PostgreSQL pgbench - Buffer Test - Normal Load - Read Write	10961	
Standard Deviation	0.3%	
PostgreSQL pgbench - Buffer Test - Heavy Contention - Read Only (TPS)	108096	
Standard Deviation	0.2%	
PostgreSQL pgbench - Buffer Test - Heavy Contention - Read Write (TPS)	12705	
Standard Deviation	0.3%	
Apache Siege - 200 (Transactions/sec)	43020	
Standard Deviation	2.8%	
Apache Siege - 250 (Transactions/sec)	42732	
Standard Deviation	1.8%	
BRL-CAD - V.P.M (VGR Performance Metric)	51612	
ctx_clock - C.S.T (Clocks)	809	
Standard Deviation	0.1%	
BLAKE2 (Cycles/Byte)	3.32	
Standard Deviation	0.2%	
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	3.54917	
Standard Deviation	0.1%	
LAMMPS Molecular Dynamics Simulator - Rhodopsin Protein (Loop Time)	27.2511	
Standard Deviation	0.3%	
Renaissance - Scala Dotty (ms)	6500	
Standard Deviation	3.7%	
Renaissance - Twitter Finagle (ms)	6494	
Standard Deviation	4.3%	
Renaissance - Apache Spark ALS (ms)	6219	
Standard Deviation	6.5%	
Renaissance - Apache Spark Bayes (ms)	6330	
Standard Deviation	6.6%	
Renaissance - Savina Reactors.IO (ms)	21690	
Standard Deviation	1.8%	
Renaissance - A.S.P (ms)	22455	
Standard Deviation	2.1%	
Renaissance - I.M.D.S (ms)	5938	
Standard Deviation	4%	
Renaissance - A.U.C.T (ms)	12078	
Standard Deviation	4.2%	
MKL-DNN - IP Batch 1D - f32 (ms)	13.0123	
Standard Deviation	3.9%	
MKL-DNN - D.B.d - f32 (ms)	11.7505	
Standard Deviation	2.4%	
MKL-DNN - D.B.d - f32 (ms)	11.4550	
Standard Deviation	0.1%	
MKL-DNN - C.B.c - f32 (ms)	737.468	
Standard Deviation	3.9%	
MKL-DNN - C.B.c - f32 (ms)	314.658	
Standard Deviation	1.2%	
DaCapo Benchmark - H2 (msec)	2998	
Standard Deviation	2.7%	

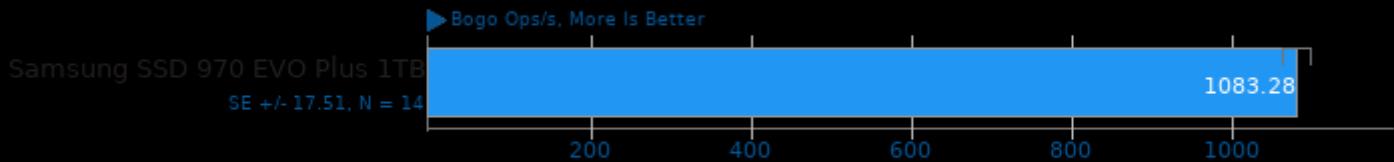
DaCapo Benchmark - Jython (msec)	3835
Standard Deviation	1.2%
DaCapo Benchmark - Tradesoap (msec)	5658
Standard Deviation	8.4%
DaCapo Benchmark - Tradebeans (msec)	3411
Standard Deviation	6.1%
Numpy Benchmark (Nanoseconds)	4536997
glibc bench - cos (nanoseconds)	33279
Standard Deviation	0.6%
glibc bench - ffs (nanoseconds)	1.78687
Standard Deviation	0.4%
glibc bench - sin (nanoseconds)	33265
Standard Deviation	0.4%
glibc bench - sqrt (nanoseconds)	1.78198
Standard Deviation	0.1%
glibc bench - tanh (nanoseconds)	12.2523
Standard Deviation	3%
glibc bench - ffsl (nanoseconds)	1.78162
Standard Deviation	0.2%
glibc bench - pthread_once (nanoseconds)	1.77972
Standard Deviation	0.1%
Go Benchmarks - http (ns/op)	6598
Standard Deviation	0.6%
Go Benchmarks - json (ns/op)	11323717
Standard Deviation	3.4%
Go Benchmarks - build (ns/op)	13273588860
Standard Deviation	2.1%
Go Benchmarks - garbage (ns/op)	2229918
Standard Deviation	5%
Multichase Pointer Chaser - 4.A.6.B.S (ns)	5.097
Standard Deviation	0%
Multichase Pointer Chaser - 1.A.2.B.S (ns)	53.256
Standard Deviation	0.4%
Multichase Pointer Chaser - 2.A.2.B.S (ns)	52.162
Standard Deviation	0.1%
Multichase Pointer Chaser - 1.A.2.B.S.2.T (ns)	54.537
Standard Deviation	0.2%
Multichase Pointer Chaser - 1.A.2.B.S.4.T (ns)	58.723
Standard Deviation	0%
t-test1 - 1 (sec)	19.195
Standard Deviation	0.2%
t-test1 - 2 (sec)	6.372
Standard Deviation	0.4%
Parboil - OpenMP LBM (sec)	124.388084
Standard Deviation	0.1%
Parboil - OpenMP CUTCP (sec)	5.477368
Standard Deviation	0.1%
Parboil - OpenMP Stencil (sec)	17.279634
Standard Deviation	0.1%
Parboil - O.M.G (sec)	46.279993
Standard Deviation	4.9%
CloverLeaf - L.E.H (sec)	4.77
Standard Deviation	0%

Rodinia - OpenMP LavaMD (sec)	171.313
Standard Deviation	0.4%
Rodinia - OpenMP CFD Solver (sec)	36.553
Standard Deviation	3.2%
Rodinia - O.S (sec)	24.028
Standard Deviation	1.2%
Timed HMMer Search - P.D.S (sec)	5.839
Standard Deviation	1.8%
Timed MAFFT Alignment - M.S.A (sec)	3.107
Standard Deviation	8.2%
Timed MrBayes Analysis - P.P.A (sec)	217.115
Standard Deviation	0.5%
Open FMM Nero2D - Total Time (sec)	90.367
Standard Deviation	0.4%
Timed Linux Kernel Compilation - Time To Compile (sec)	140.596
Standard Deviation	0.3%
Timed LLVM Compilation - Time To Compile (sec)	827.714
Timed PHP Compilation - Time To Compile (sec)	75.370
Standard Deviation	1.6%
C-Ray - Total Time - 4.1.R.P.P (sec)	161.721
Standard Deviation	0.4%
Parallel BZIP2 Compression - 2.F.C (sec)	6.467
Standard Deviation	3.4%
POV-Ray - Trace Time (sec)	102.257
Standard Deviation	0.6%
Primesieve - 1.P.N.G (sec)	51.791
Standard Deviation	2.3%
Rust Mandelbrot - T.T.C.S.P.M (sec)	56.400
Standard Deviation	0.6%
Rust Prime Benchmark - P.N.T.T.2.0.0 (sec)	23.493
Standard Deviation	2.9%
XZ Compression - C.u.1.0.3.s.i.i.C.L.9 (sec)	41.809
Standard Deviation	0.5%
Zstd Compression - C.u.1.0.3.s.i.i.C.L.1 (sec)	27.788
Standard Deviation	1.7%
Cython benchmark (sec)	39.459
Standard Deviation	2.6%
FLAC Audio Encoding - WAV To FLAC (sec)	8.365
Standard Deviation	0.9%
LAME MP3 Encoding - WAV To MP3 (sec)	27.015
Standard Deviation	0.1%
Hackbench - 32 - Process (sec)	205.536
Standard Deviation	1.8%
m-queens - Time To Solve (sec)	173.942
Standard Deviation	0.5%
Minion - Graceful (sec)	48.607268
Standard Deviation	0.7%
Minion - Solitaire (sec)	62.885585
Standard Deviation	1%
Minion - Quasigroup (sec)	113.001072
Standard Deviation	0.8%
Radiance Benchmark - Serial (sec)	711.14
Radiance Benchmark - SMP Parallel (sec)	295.815

R Benchmark (sec) 0.1816
Standard Deviation 0.6%
Tachyon - Total Time (sec) 8.1776
Standard Deviation 4.6%
Tensorflow - Cifar10 (sec) 40.36
Standard Deviation 3.5%
CppPerformanceBenchmarks - Atol (sec) 60.849
Standard Deviation 0.1%
CppPerformanceBenchmarks - Ctype (sec) 28.714
Standard Deviation 0%
CppPerformanceBenchmarks - Math Library (sec) 336.014
Standard Deviation 0.2%
CppPerformanceBenchmarks - Function Objects (sec) 14.127
Standard Deviation 0%
Darktable - Boat - CPU-only (sec) 15.538
Standard Deviation 3%
Darktable - Masskrug - CPU-only (sec) 7.638
Standard Deviation 1.5%
Darktable - Server Rack - CPU-only (sec) 0.211
Standard Deviation 1.3%
Darktable - Server Room - CPU-only (sec) 5.214
Standard Deviation 0.4%
GNU Octave Benchmark (sec) 8.092
Standard Deviation 1%
Scikit-Learn (sec) 13.475
Standard Deviation 0.4%
Tesseract OCR - T.T.O.7.I (sec) 25.40
Standard Deviation 0.1%
Sockperf - Latency Ping Pong (usec) 3.420
Standard Deviation 1.1%
Sockperf - Latency Under Load (usec) 18.348
Standard Deviation 23.7%
HPC Challenge - R.R.L (usecs) 0.83859
Standard Deviation 1.3%

Stress-NG 0.07.26

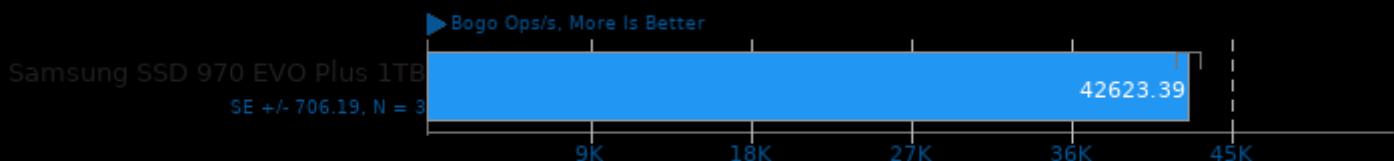
Test: Crypto



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

Stress-NG 0.07.26

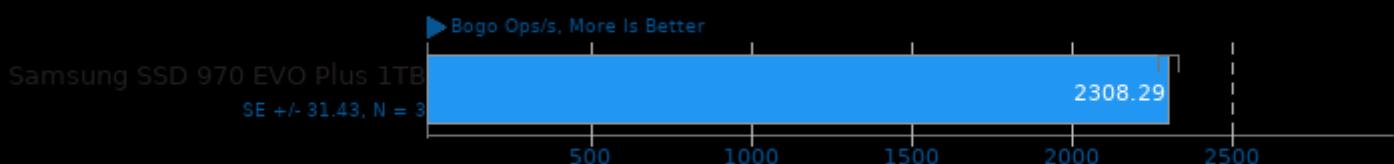
Test: Forking



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

Stress-NG 0.07.26

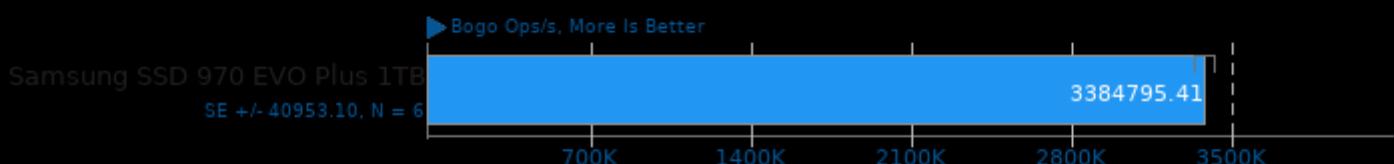
Test: CPU Stress



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

Stress-NG 0.07.26

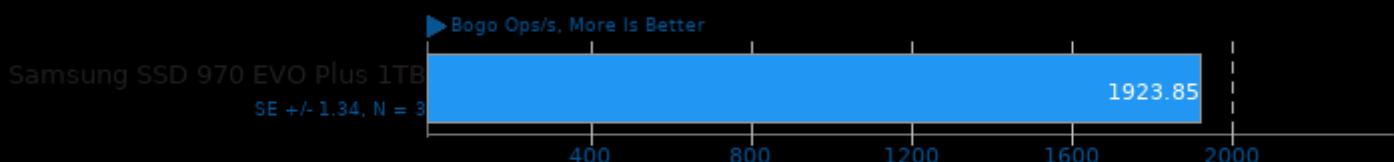
Test: Semaphores



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

Stress-NG 0.07.26

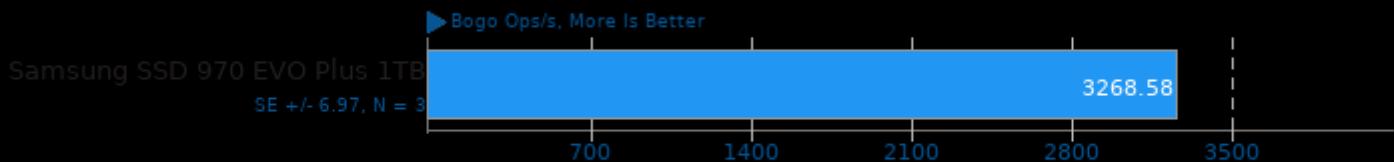
Test: Memory Copying



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

Stress-NG 0.07.26

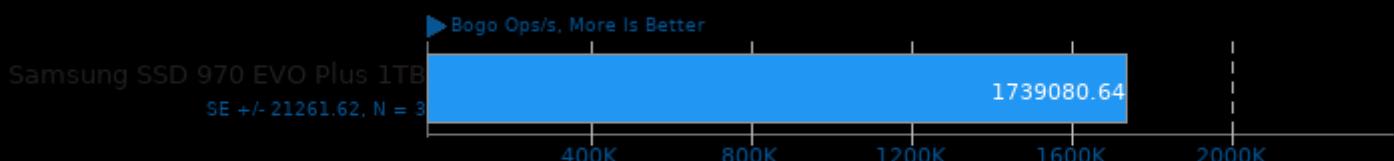
Test: Socket Activity



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

Stress-NG 0.07.26

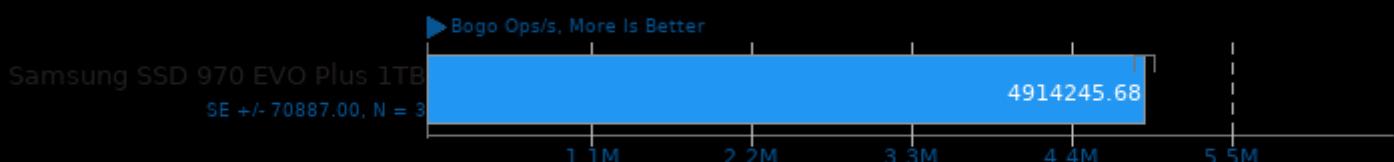
Test: Context Switching



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

Stress-NG 0.07.26

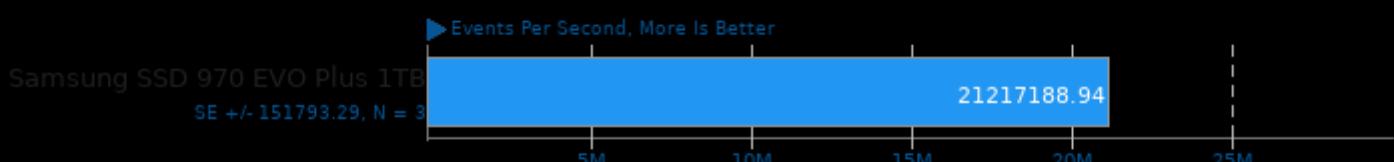
Test: System V Message Passing



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

Sysbench 2018-07-28

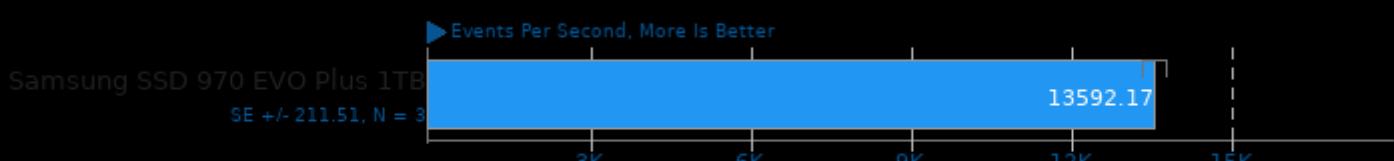
Test: Memory



1. (CC) gcc options: -pthread -O3 -funroll-loops -ggdb3 -march=core2 -rdynamic -ldl -laiio -lm

Sysbench 2018-07-28

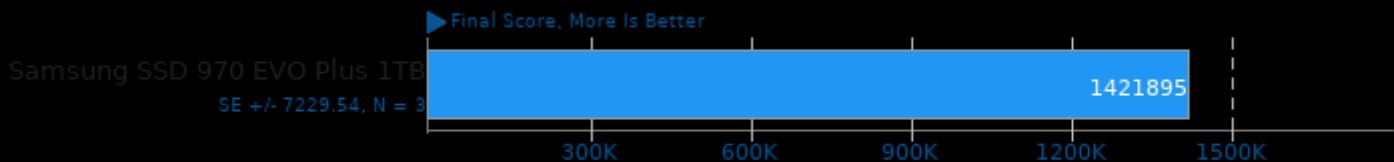
Test: CPU



1. (CC) gcc options: -pthread -O3 -funroll-loops -ggdb3 -march=core2 -rdynamic -ldl -laiio -lm

BlogBench 1.1

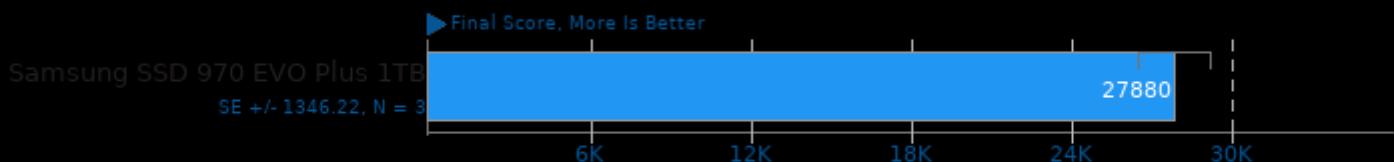
Test: Read



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

BlogBench 1.1

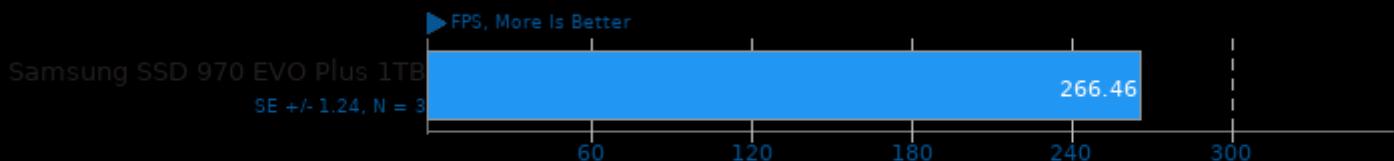
Test: Write



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

TTSIOD 3D Renderer 2.3b

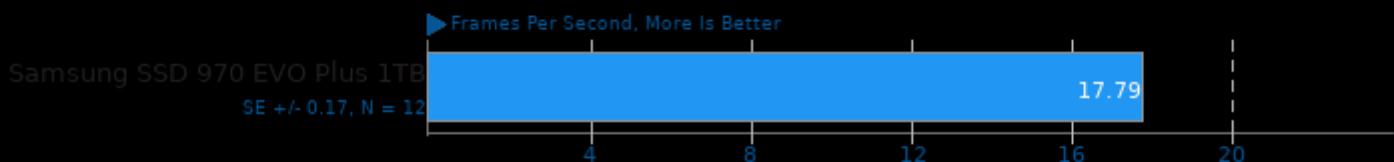
Phong Rendering With Soft-Shadow Mapping



1. (CXX) g++ options: -O3 -fomit-frame-pointer -ffast-math -mtune=native -fno -msse -mrecip -mfpmath=sse -msse2 -msse3 -fopenmp -fwhole-pr

SVT-AV1 0.5

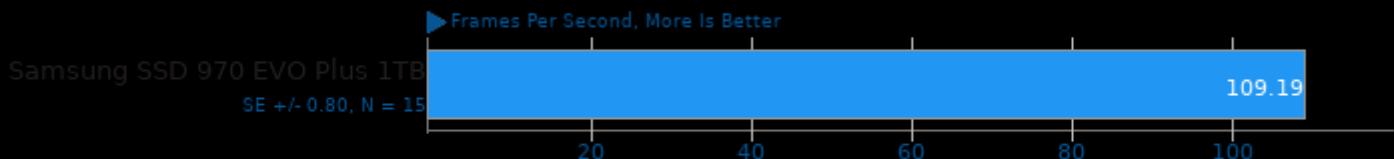
1080p 8-bit YUV To AV1 Video Encode



1. (CXX) g++ options: -O3 -pie -lpthread -lm

SVT-HEVC 2019-02-03

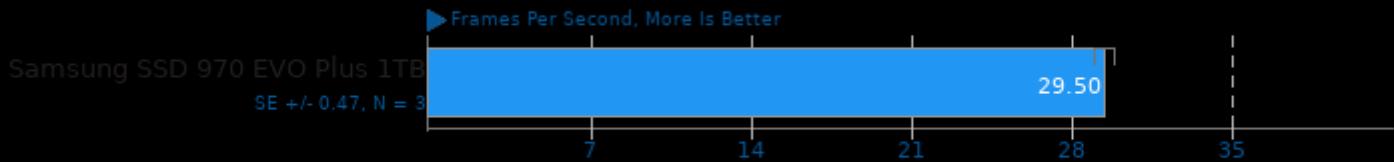
1080p 8-bit YUV To HEVC Video Encode



1. (CC) gcc options: -fPIE -fPIC -O2 -fno -fvisibility=hidden -march=native -pie -rdynamic -lpthread -lrt

SVT-VP9 2019-02-17

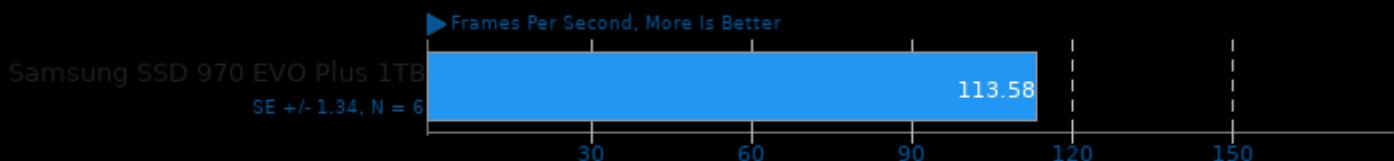
1080p 8-bit YUV To VP9 Video Encode



1. (CC) gcc options: -fPIE -fPIC -O2 -fno -fvisibility=hidden -mavx -pie -rdynamic -lpthread -lrt -lm

VP9 libvpx Encoding 1.8.0

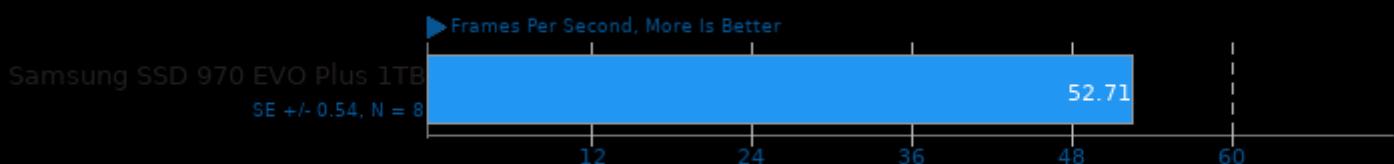
vpxenc VP9 1080p Video Encode



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

x264 2018-09-25

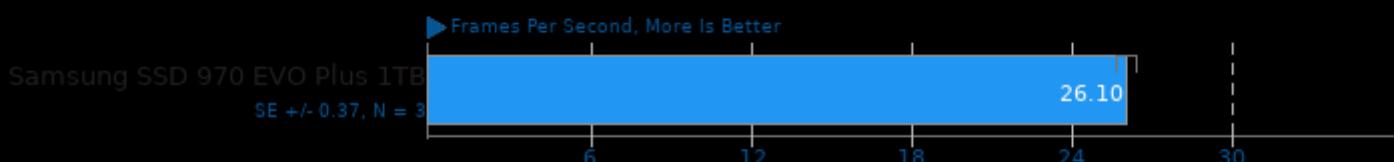
H.264 Video Encoding



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

x265 3.0

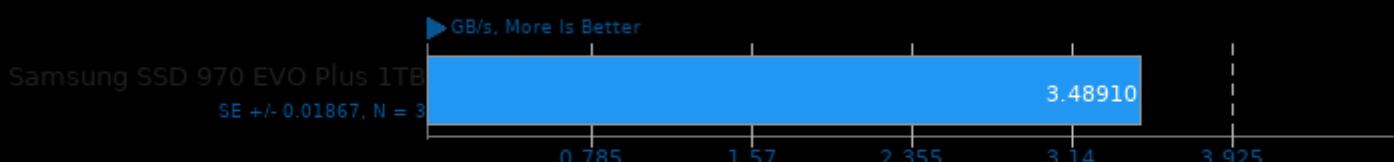
H.265 1080p Video Encoding



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

HPC Challenge 1.5.0

Test / Class: G-Ptrans

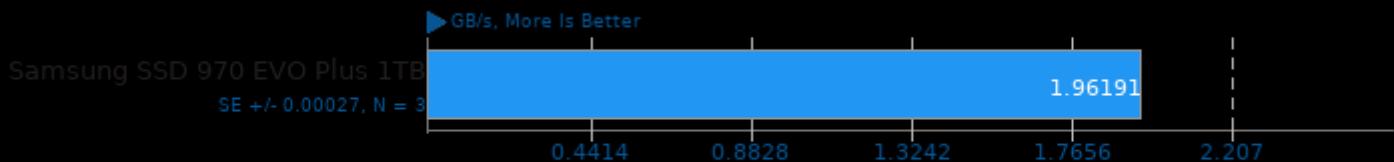


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -O3 -march=native -funroll-loops

2. OpenBLAS + Open MPI 2.1.1

HPC Challenge 1.5.0

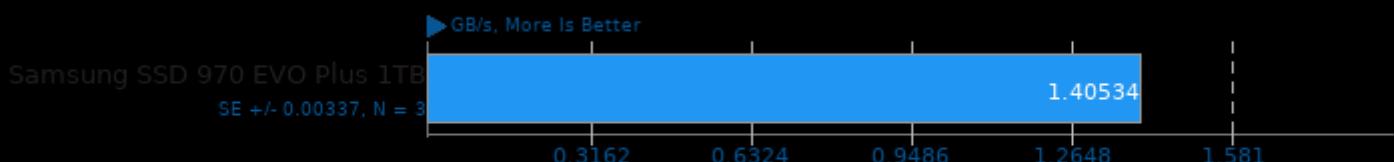
Test / Class: EP-STREAM Triad



1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -O3 -march=native -funroll-loops
2. OpenBLAS + Open MPI 2.1.1

HPC Challenge 1.5.0

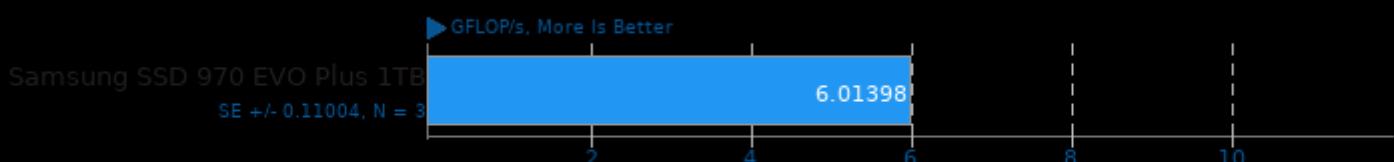
Test / Class: Random Ring Bandwidth



1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -O3 -march=native -funroll-loops
2. OpenBLAS + Open MPI 2.1.1

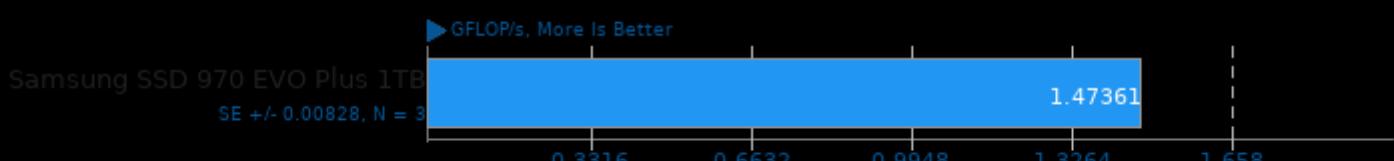
HPC Challenge 1.5.0

Test / Class: G-Fft



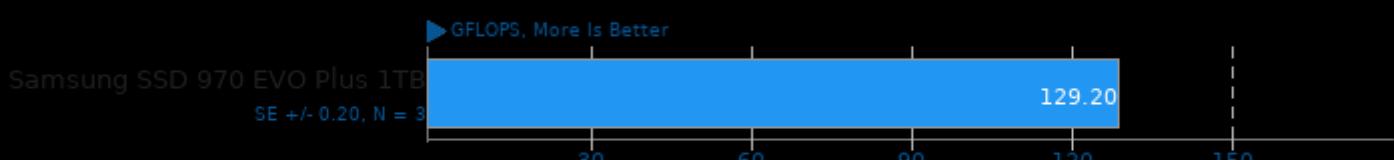
1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -O3 -march=native -funroll-loops
2. OpenBLAS + Open MPI 2.1.1

High Performance Conjugate Gradient 3.0



HPC Challenge 1.5.0

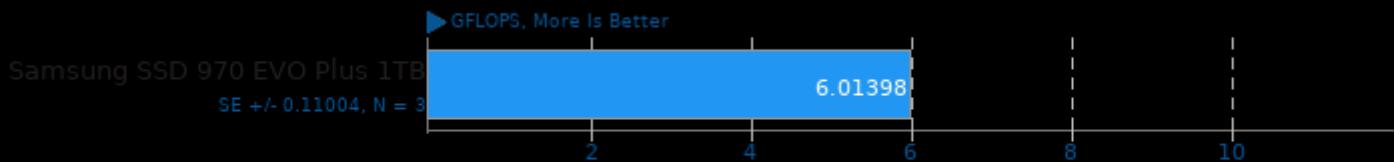
Test / Class: G-HPL



1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -O3 -march=native -funroll-loops
2. OpenBLAS + Open MPI 2.1.1

HPC Challenge 1.5.0

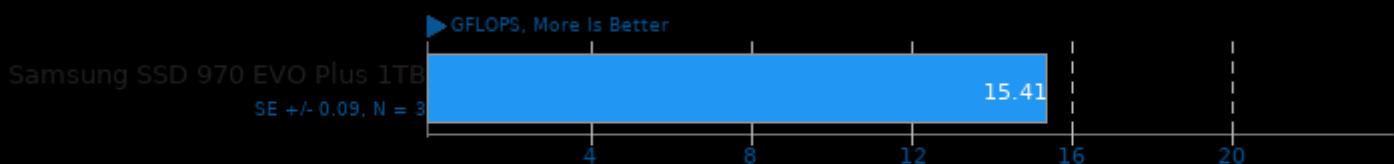
Test / Class: G-Ffte



1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -O3 -march=native -funroll-loops
2. OpenBLAS + Open MPI 2.1.1

HPC Challenge 1.5.0

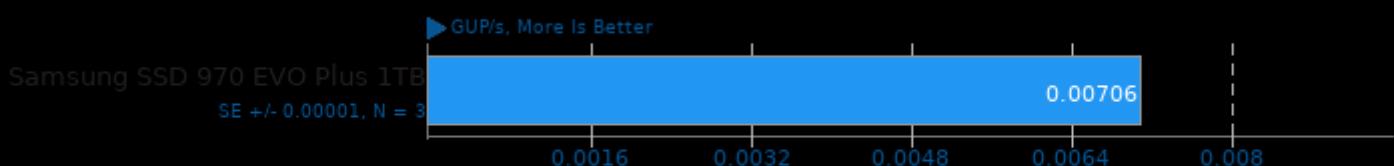
Test / Class: EP-DGEMM



1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -O3 -march=native -funroll-loops
2. OpenBLAS + Open MPI 2.1.1

HPC Challenge 1.5.0

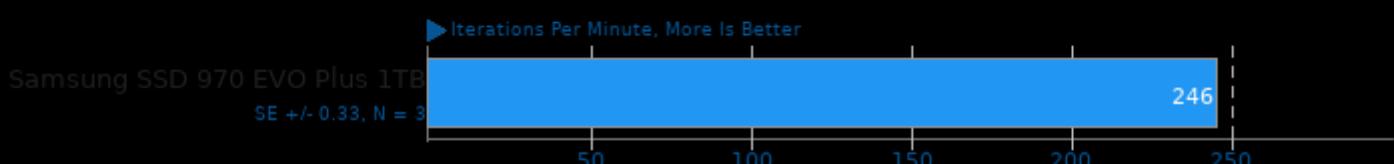
Test / Class: G-Random Access



1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -O3 -march=native -funroll-loops
2. OpenBLAS + Open MPI 2.1.1

GraphicsMagick 1.3.30

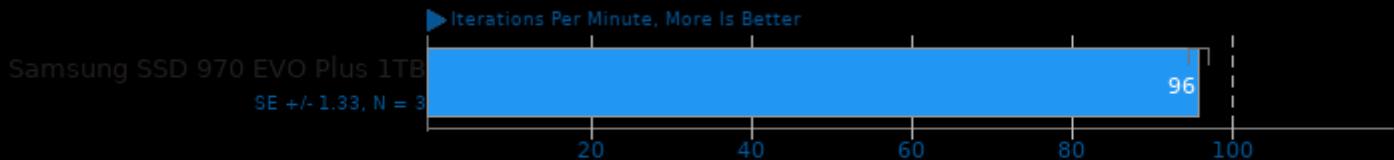
Operation: Rotate



1. (CC) gcc options: -fopenmp -O2 -pthread -ljpeg -lwebp -lwebpmux -ltiff -ljpeg -lXext -lSM -lICE -lX11 -lzma -bz2 -xml2 -lz -lm -lgomp -lpthread

GraphicsMagick 1.3.30

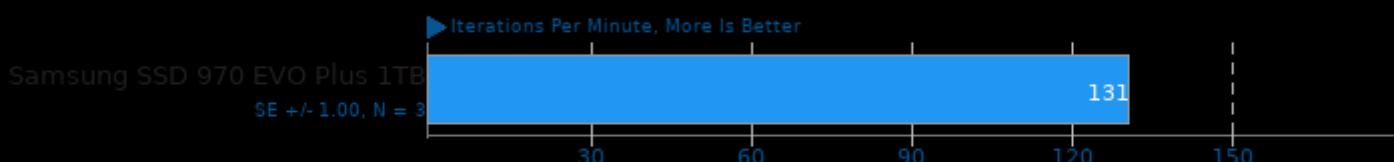
Operation: Sharpen



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

GraphicsMagick 1.3.30

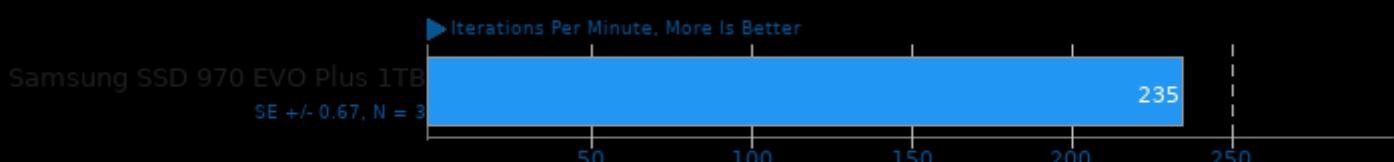
Operation: Enhanced



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

GraphicsMagick 1.3.30

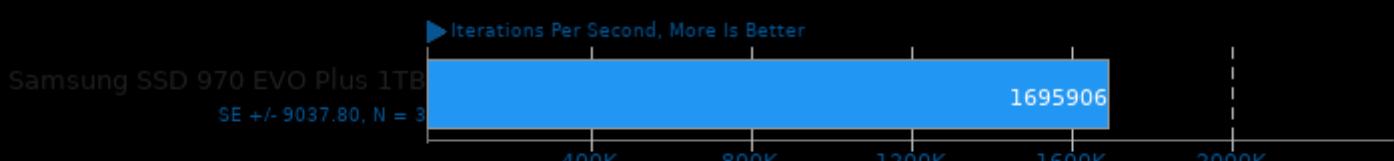
Operation: Resizing



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

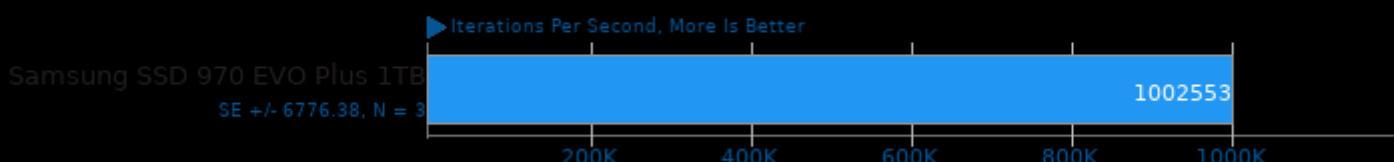
Cryptsetup 2.0.2

PBKDF2-sha512

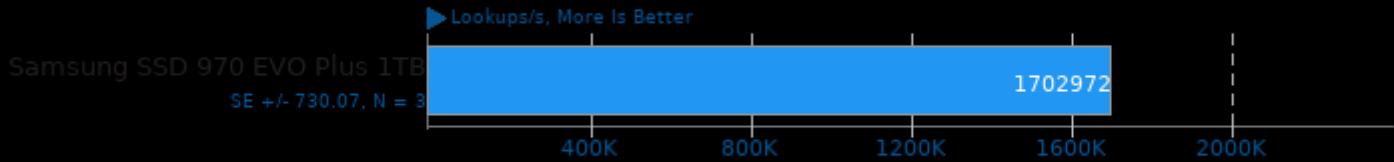


Cryptsetup

PBKDF2-whirlpool



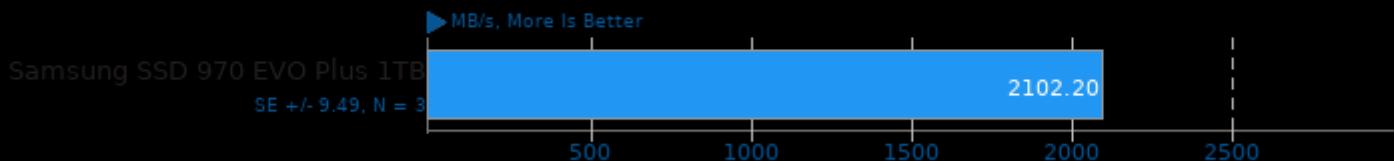
Xsbench 2017-07-06



1. (CC) gcc options: -std=gnu99 -fopenmp -O3 -lm

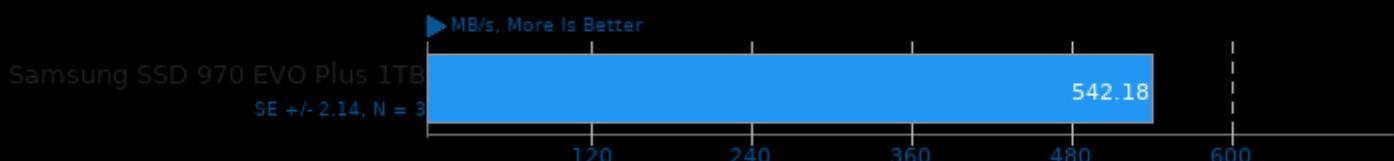
Compile Bench 0.6

Test: Compile



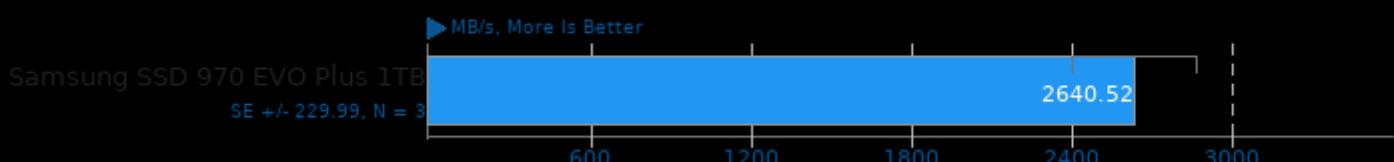
Compile Bench 0.6

Test: Initial Create



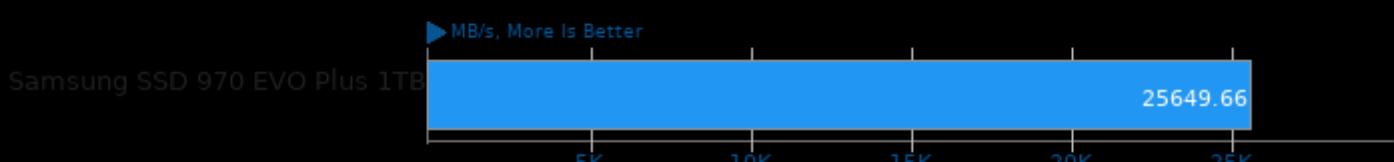
Compile Bench 0.6

Test: Read Compiled Tree



RAMspeed SMP 3.5.0

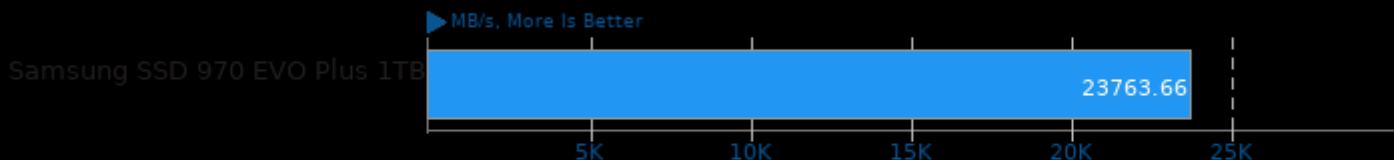
Type: Add - Benchmark: Integer



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

RAMspeed SMP 3.5.0

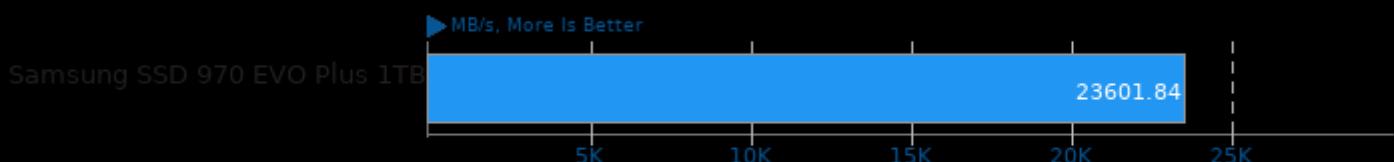
Type: Copy - Benchmark: Integer



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

RAMspeed SMP 3.5.0

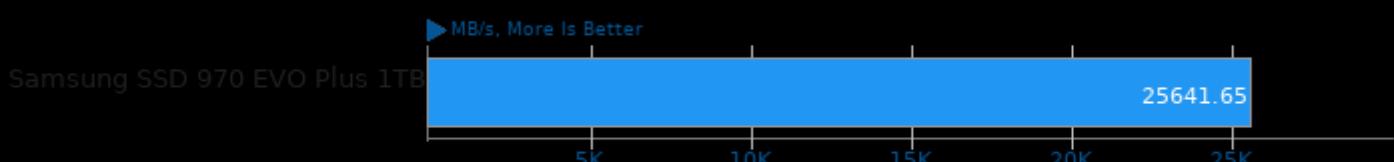
Type: Scale - Benchmark: Integer



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

RAMspeed SMP 3.5.0

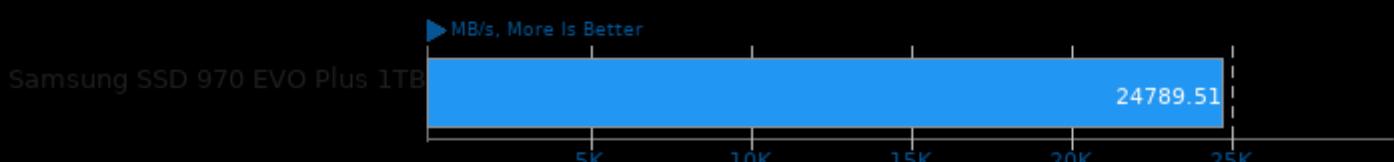
Type: Triad - Benchmark: Integer



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

RAMspeed SMP 3.5.0

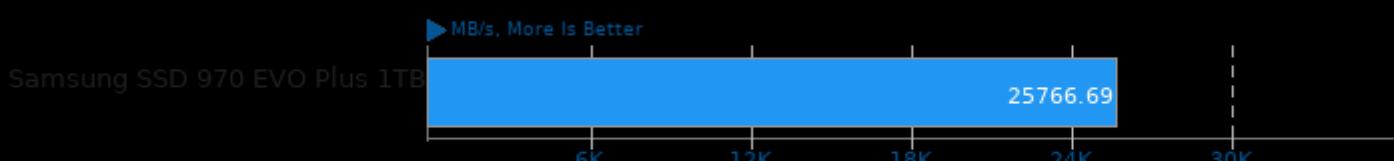
Type: Average - Benchmark: Integer



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

RAMspeed SMP 3.5.0

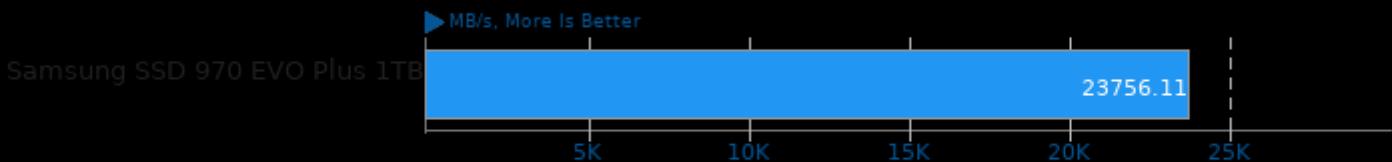
Type: Add - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

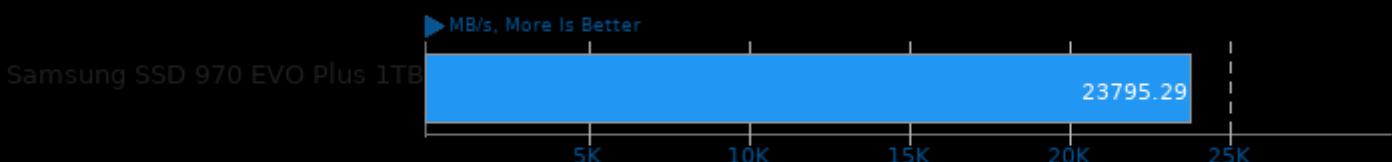
Type: Copy - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

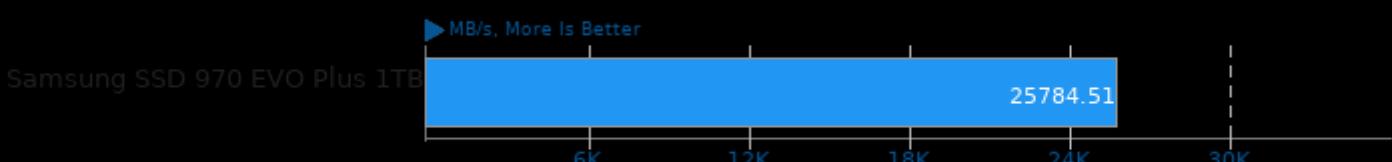
Type: Scale - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

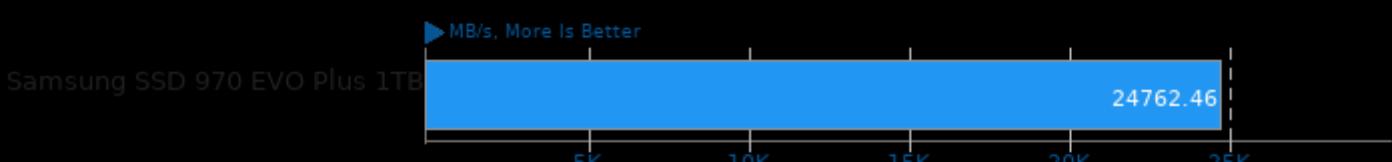
Type: Triad - Benchmark: Floating Point



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

RAMspeed SMP 3.5.0

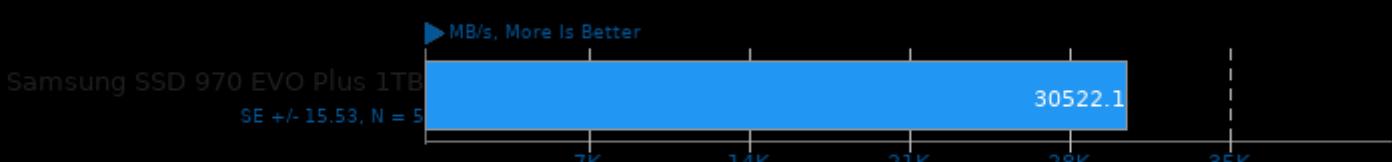
Type: Average - Benchmark: Floating Point



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

Stream 2013-01-17

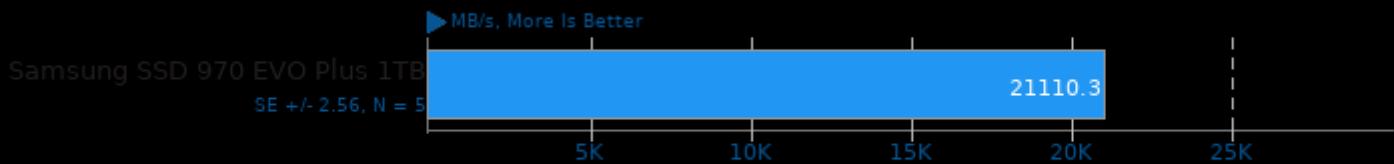
Type: Copy



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

Stream 2013-01-17

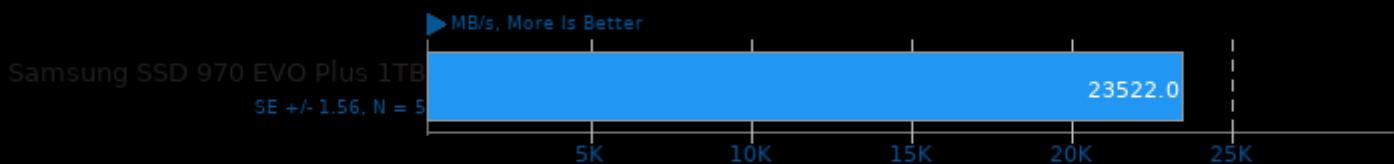
Type: Scale



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

Stream 2013-01-17

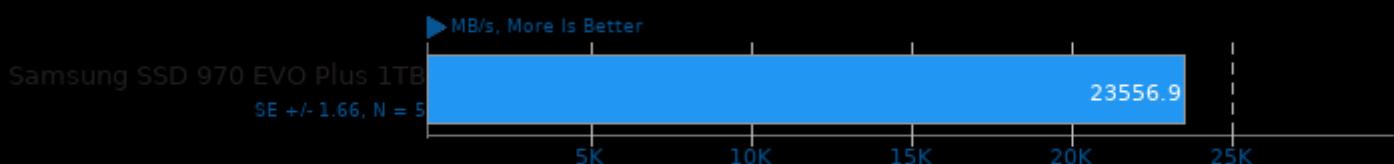
Type: Triad



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

Stream 2013-01-17

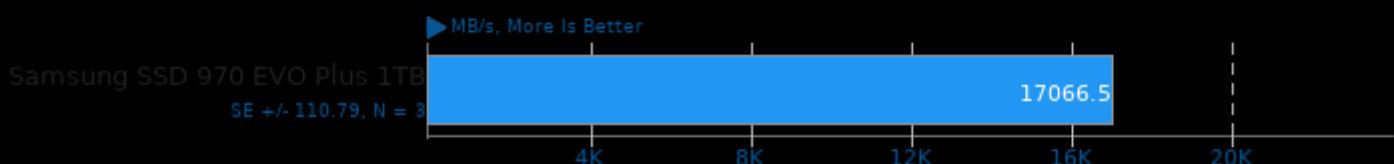
Type: Add



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

Tinymembench 2018-05-28

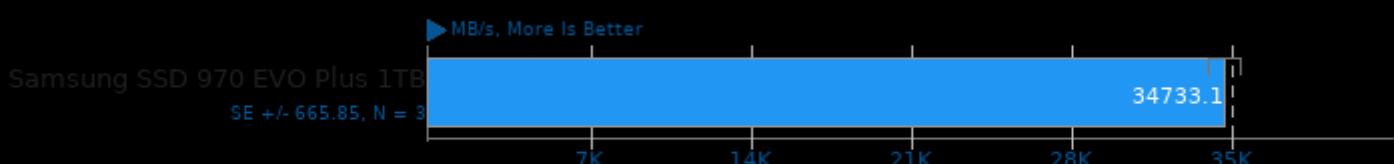
Standard Memcpy



1. (CC) gcc options: -O2 -lm

Tinymembench 2018-05-28

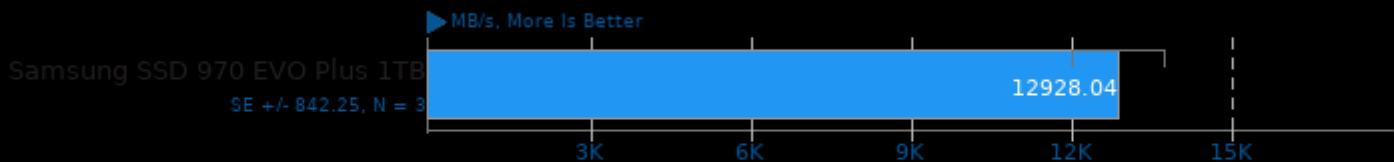
Standard Memset



1. (CC) gcc options: -O2 -lm

HPC Challenge 1.5.0

Test / Class: Max Ping Pong Bandwidth

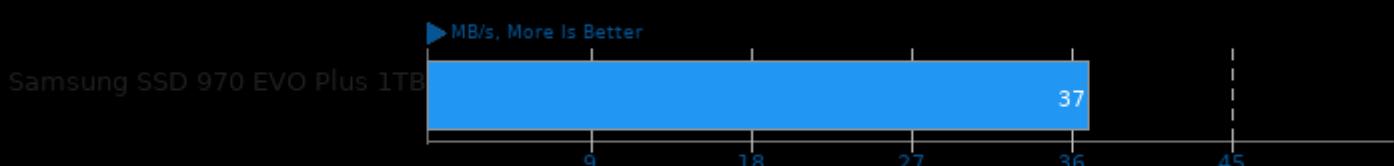


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -O3 -march=native -funroll-loops

2. OpenBLAS + Open MPI 2.1.1

Izbench 2017-08-08

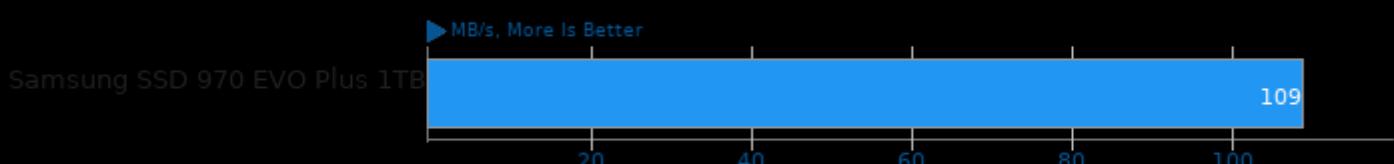
Test: XZ 0 - Process: Compression



1. (CXX) g++ options: -lrt -static -lpthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

Izbench 2017-08-08

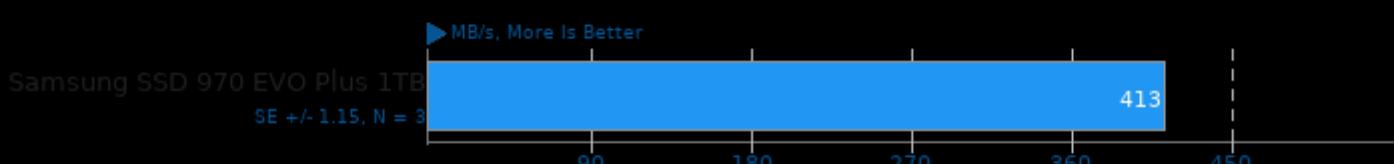
Test: XZ 0 - Process: Decompression



1. (CXX) g++ options: -lrt -static -lpthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

Izbench 2017-08-08

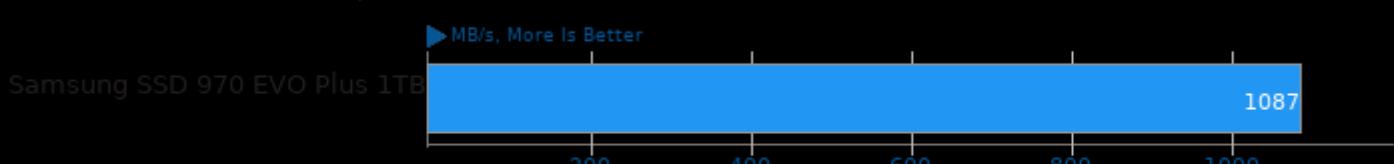
Test: Zstd 1 - Process: Compression



1. (CXX) g++ options: -lrt -static -lpthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

Izbench 2017-08-08

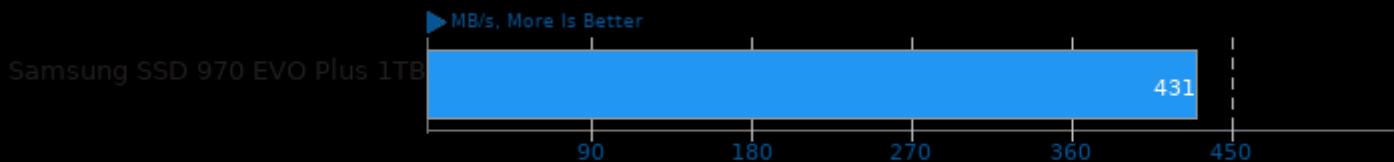
Test: Zstd 1 - Process: Decompression



1. (CXX) g++ options: -lrt -static -lpthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

Izbench 2017-08-08

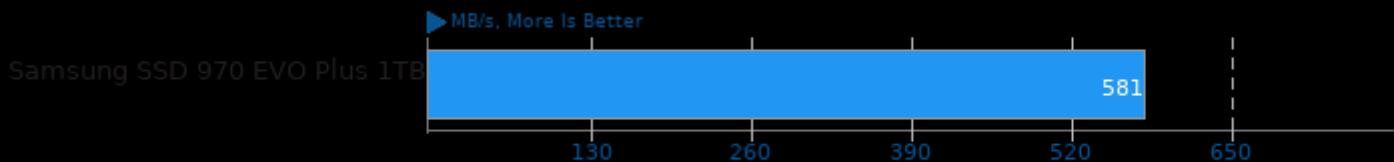
Test: Brotli 0 - Process: Compression



1. (CXX) g++ options: -fno-rtti -fstatic -fno-thread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

Izbench 2017-08-08

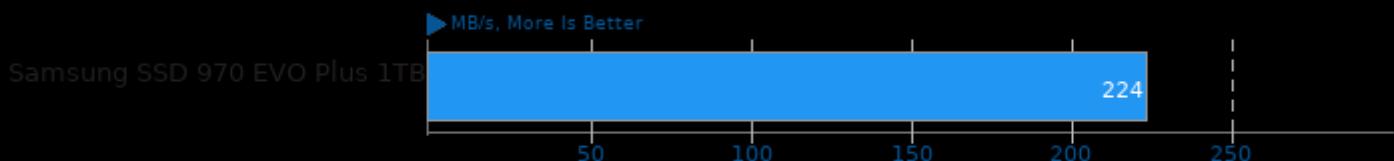
Test: Brotli 0 - Process: Decompression



1. (CXX) g++ options: -fno-rtti -fstatic -fno-thread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

Izbench 2017-08-08

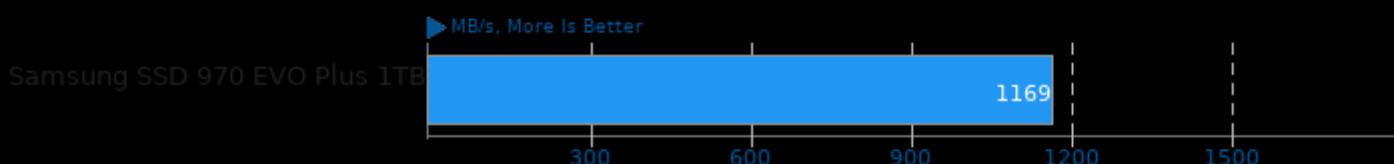
Test: Libdeflate 1 - Process: Compression



1. (CXX) g++ options: -fno-rtti -fstatic -fno-thread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

Izbench 2017-08-08

Test: Libdeflate 1 - Process: Decompression



1. (CXX) g++ options: -fno-rtti -fstatic -fno-thread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

CacheBench

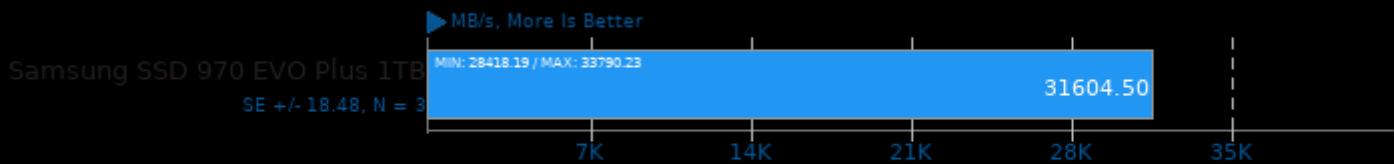
Test: Read



1. (CC) gcc options: -fno-rtti

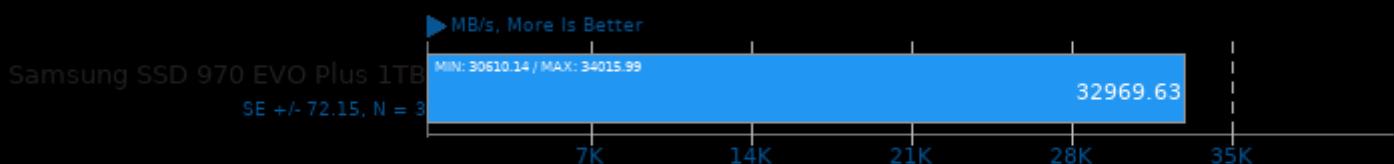
CacheBench

Test: Write



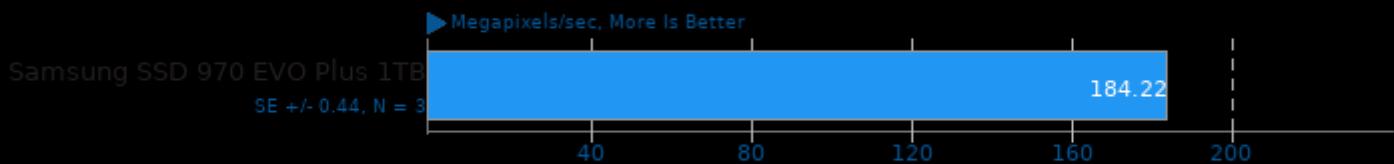
CacheBench

Test: Read / Modify / Write



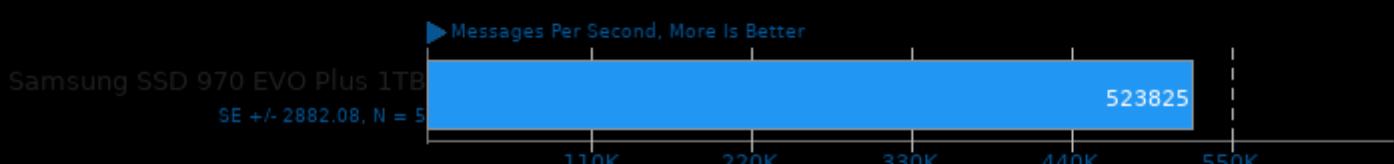
libjpeg-turbo tjbench 1.5.3

Test: Decompression Throughput



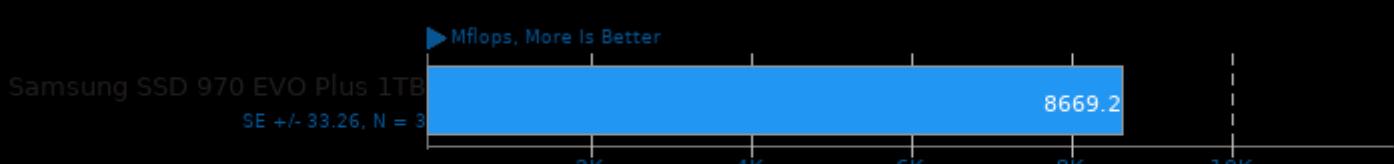
Sockperf 3.4

Test: Throughput



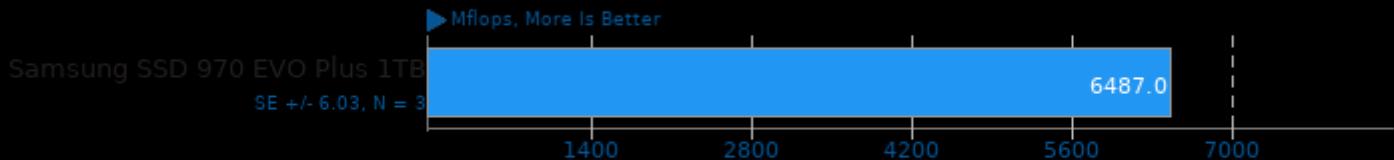
FFTW 3.3.6

Build: Stock - Size: 1D FFT Size 4096



FFTW 3.3.6

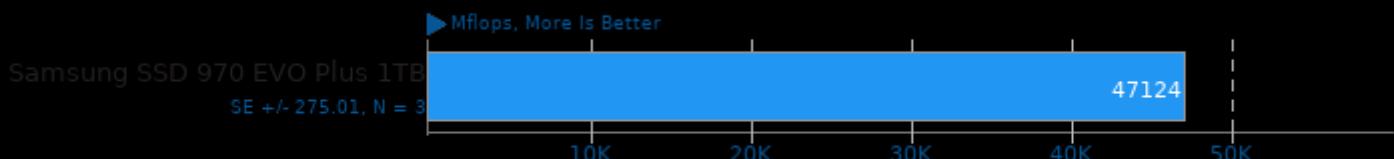
Build: Stock - Size: 2D FFT Size 4096



1. (CC) gcc options: -pthread -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

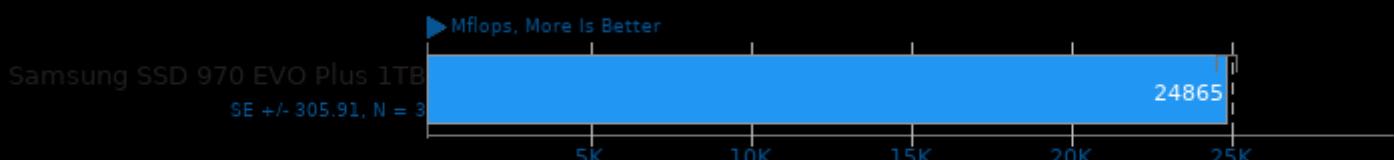
Build: Float + SSE - Size: 1D FFT Size 4096



1. (CC) gcc options: -pthread -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

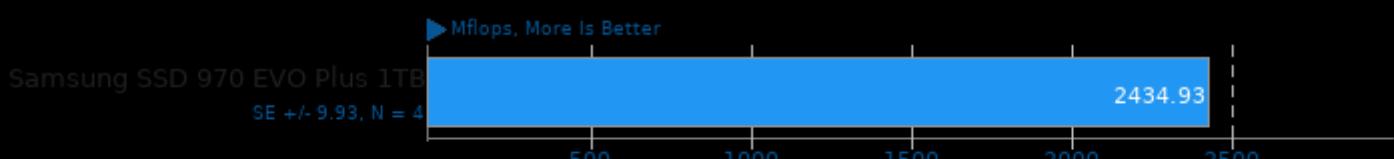
Build: Float + SSE - Size: 2D FFT Size 4096



1. (CC) gcc options: -pthread -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

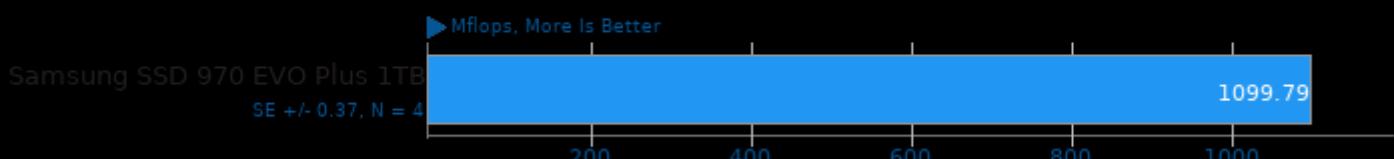
Java SciMark 2.0

Computational Test: Composite



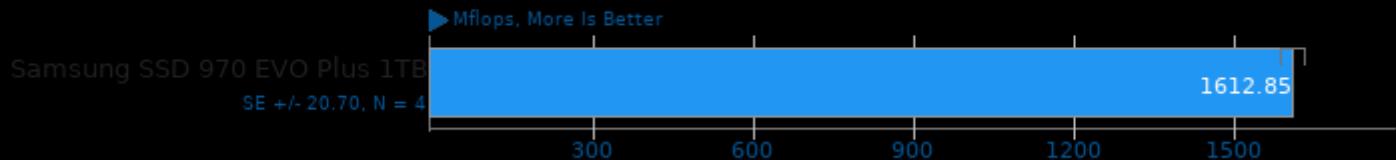
Java SciMark 2.0

Computational Test: Monte Carlo



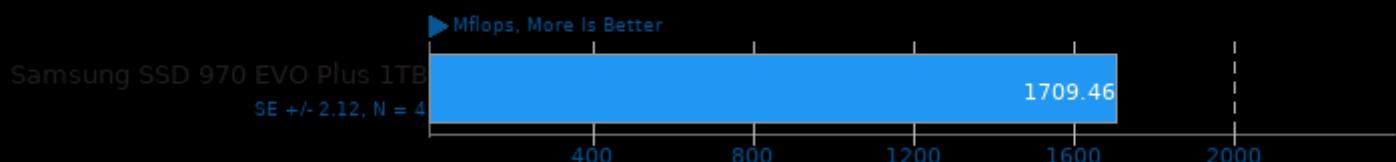
Java SciMark 2.0

Computational Test: Fast Fourier Transform



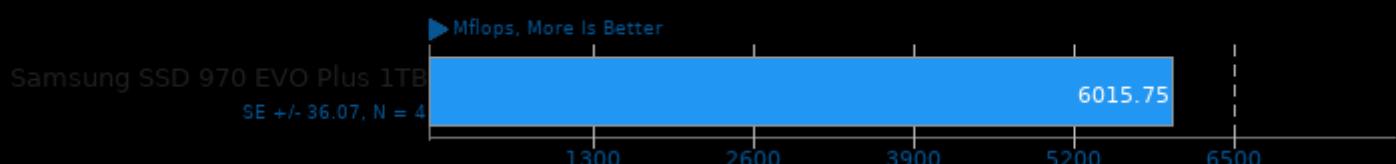
Java SciMark 2.0

Computational Test: Sparse Matrix Multiply



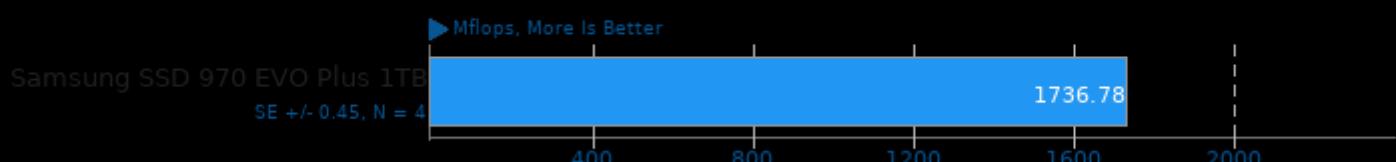
Java SciMark 2.0

Computational Test: Dense LU Matrix Factorization



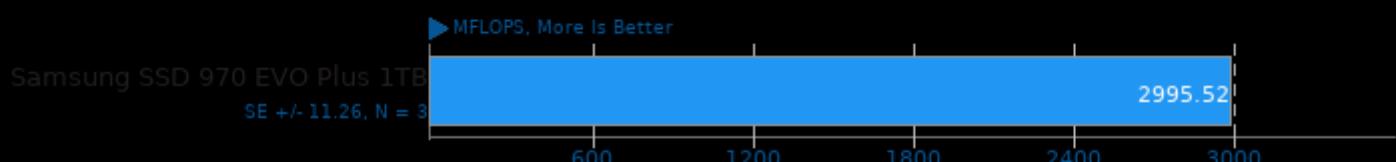
Java SciMark 2.0

Computational Test: Jacobi Successive Over-Relaxation



Himeno Benchmark 3.0

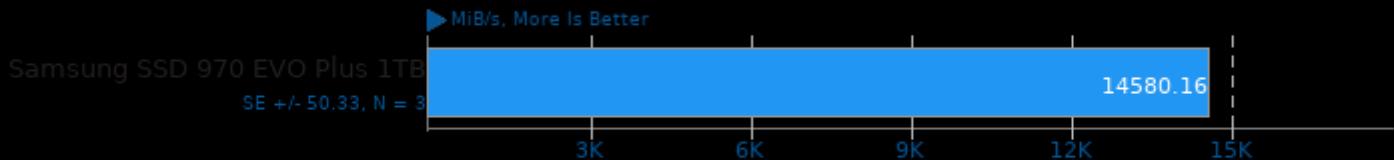
Poisson Pressure Solver



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

MBW 2018-09-08

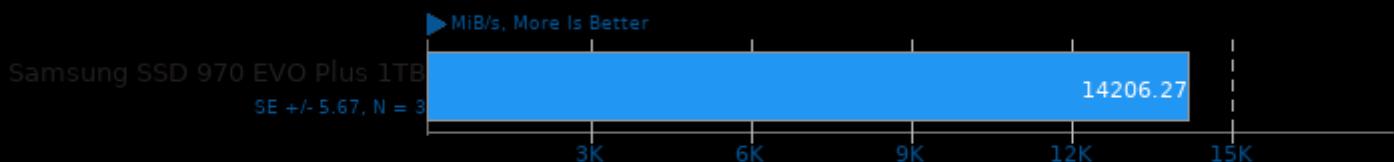
Test: Memory Copy - Array Size: 128 MiB



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

MBW 2018-09-08

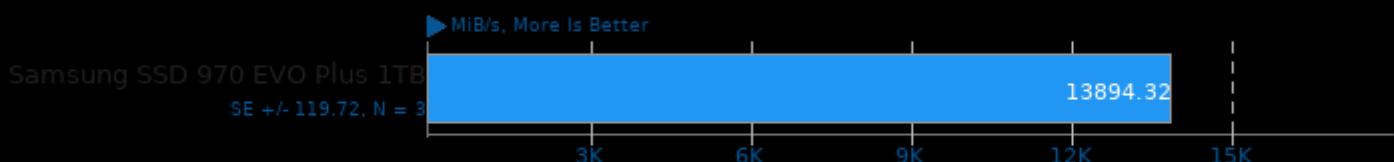
Test: Memory Copy - Array Size: 1024 MiB



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

MBW 2018-09-08

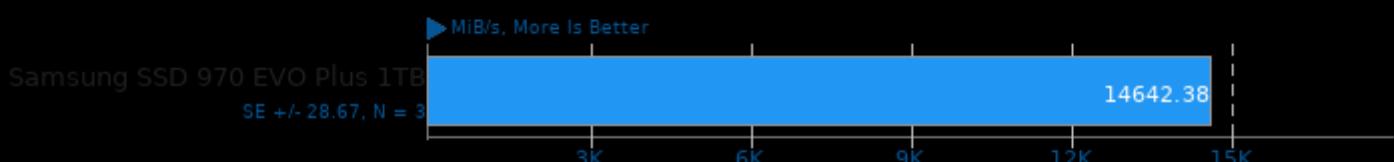
Test: Memory Copy - Array Size: 4096 MiB



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

MBW 2018-09-08

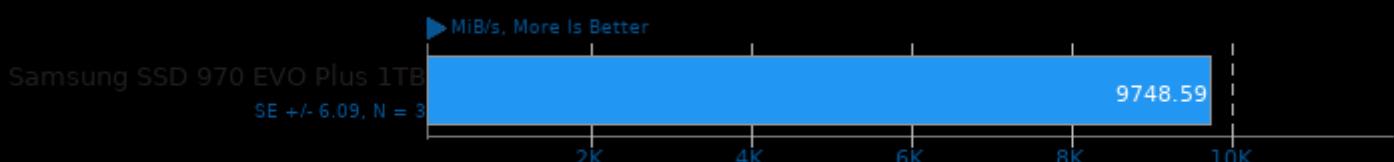
Test: Memory Copy - Array Size: 8192 MiB



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

MBW 2018-09-08

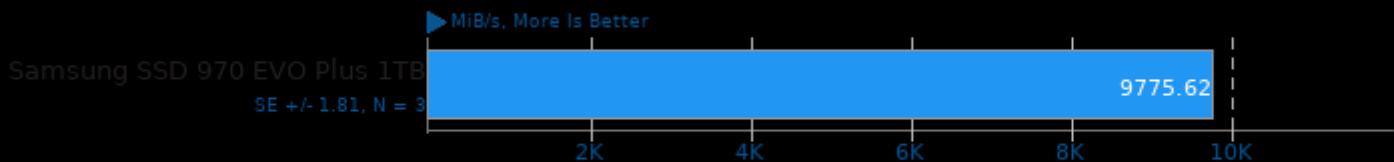
Test: Memory Copy, Fixed Block Size - Array Size: 128 MiB



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

MBW 2018-09-08

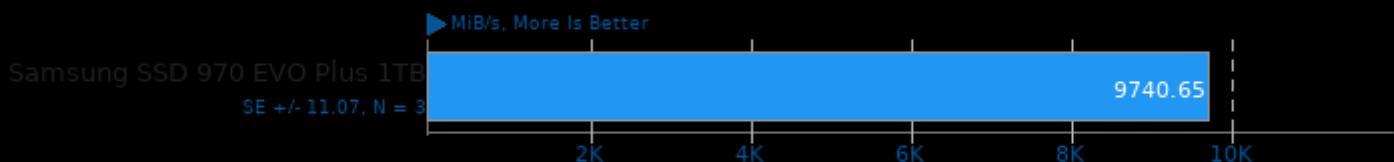
Test: Memory Copy, Fixed Block Size - Array Size: 1024 MiB



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

MBW 2018-09-08

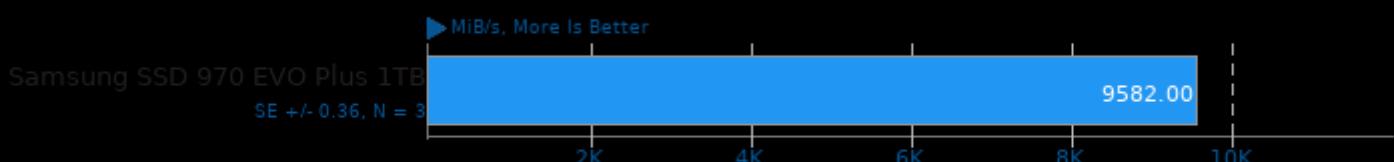
Test: Memory Copy, Fixed Block Size - Array Size: 4096 MiB



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

MBW 2018-09-08

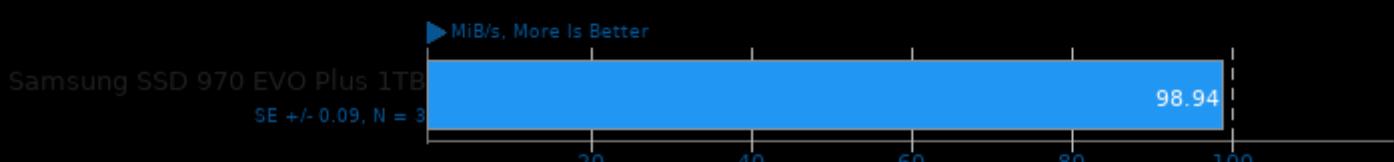
Test: Memory Copy, Fixed Block Size - Array Size: 8192 MiB



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

Botan 2.8.0

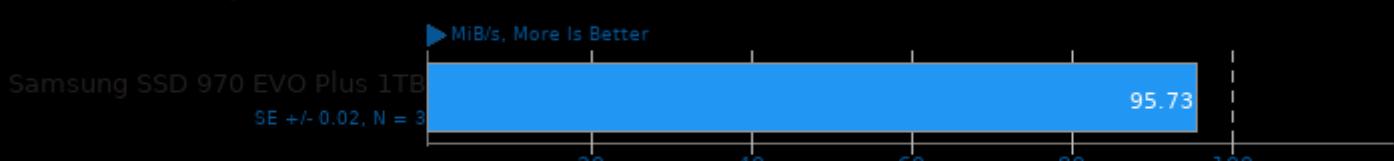
Test: KASUMI - Encrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.8.0

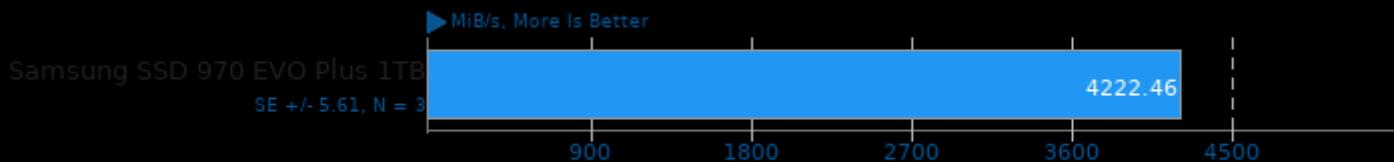
Test: KASUMI - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.8.0

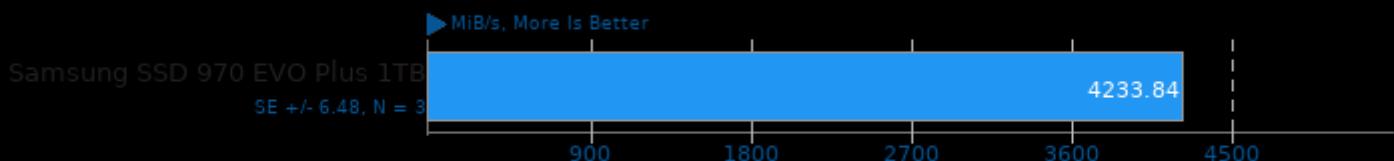
Test: AES-256 - Encrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.8.0

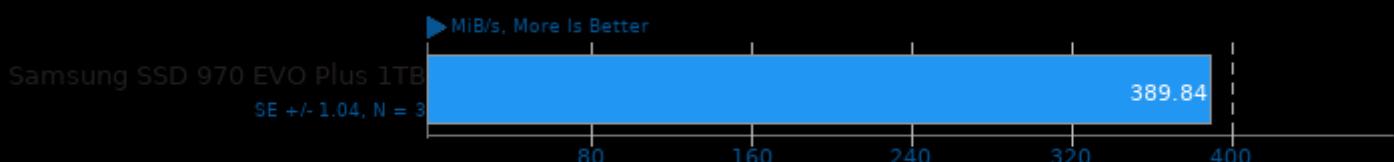
Test: AES-256 - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -dl -lrt

Botan 2.8.0

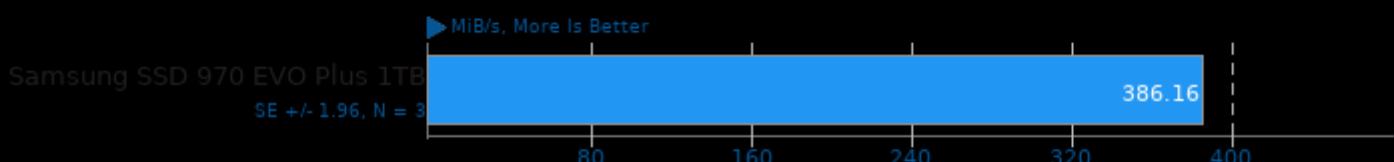
Test: Twofish - Encrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -dl -lrt

Botan 2.8.0

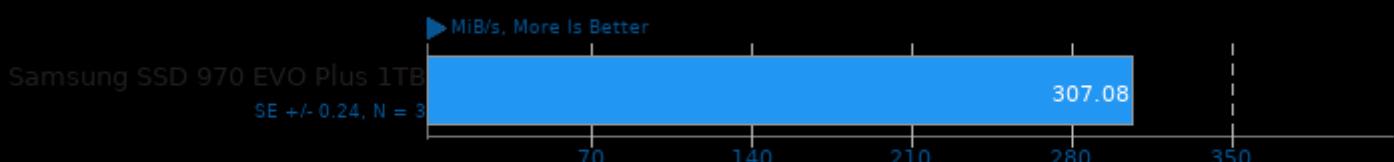
Test: Twofish - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -dl -lrt

Botan 2.8.0

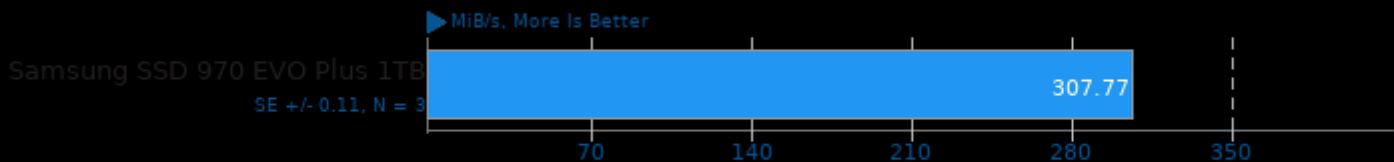
Test: Blowfish - Encrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -dl -lrt

Botan 2.8.0

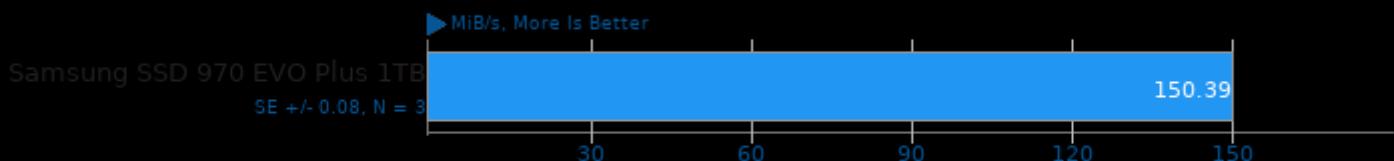
Test: Blowfish - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.8.0

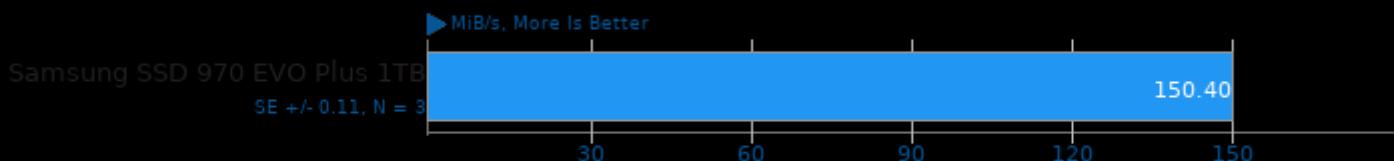
Test: CAST-256 - Encrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -dl -lrt

Botan 2.8.0

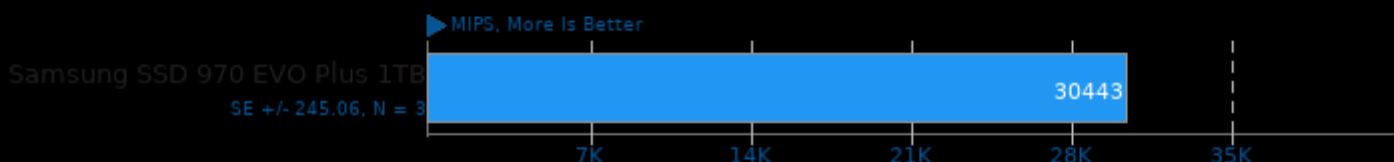
Test: CAST-256 - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -dl -lrt

7-Zip Compression 16.02

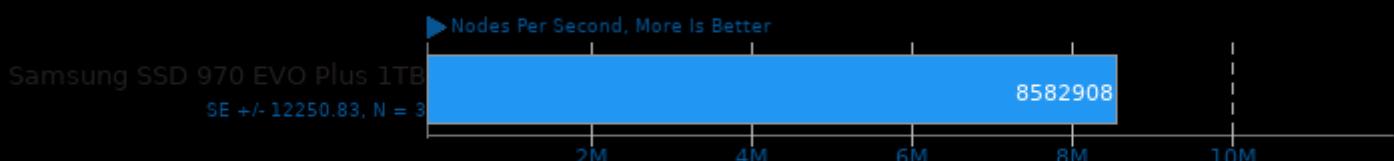
Compress Speed Test



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

Crafty 25.2

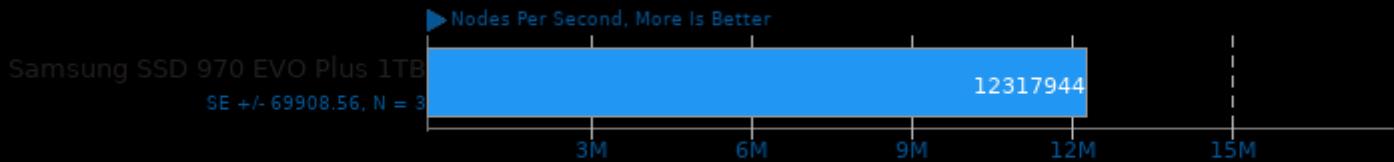
Elapsed Time



1. (CC) gcc options: -pthread -stdc++ -fprofile-use -lm

Stockfish 9

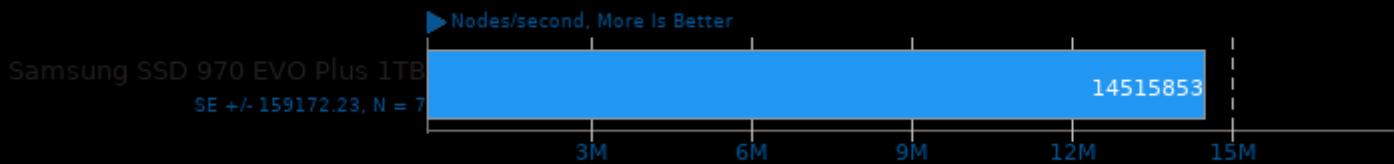
Total Time



1. (CXX) g++ options: -m64 -lpthread -fno-exceptions -std=c++11 -pedantic -O3 -msse -msse3 -mpopcnt -fno-

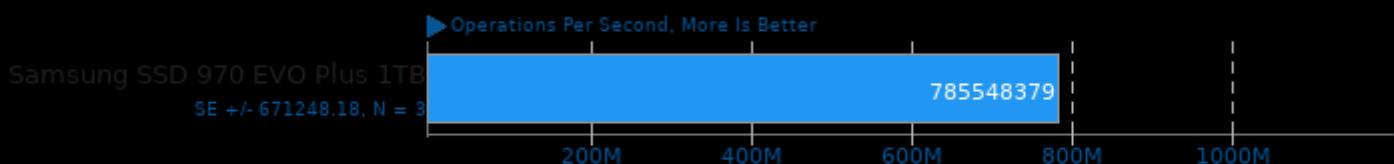
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



Swet 1.5.16

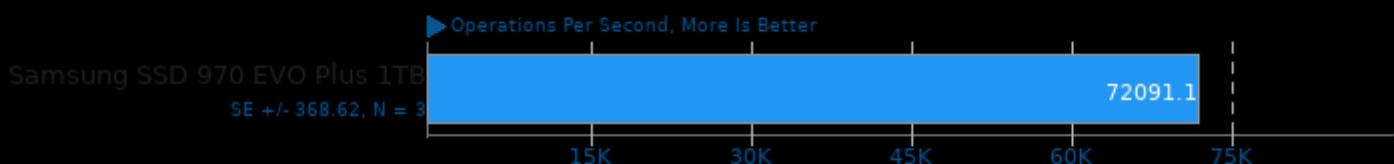
Average



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

Memcached mcperf 1.5.10

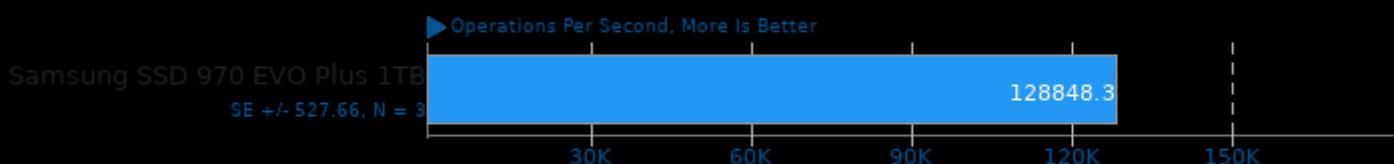
Method: Add



1. (CC) gcc options: -O2 -lm -rdynamic

Memcached mcperf 1.5.10

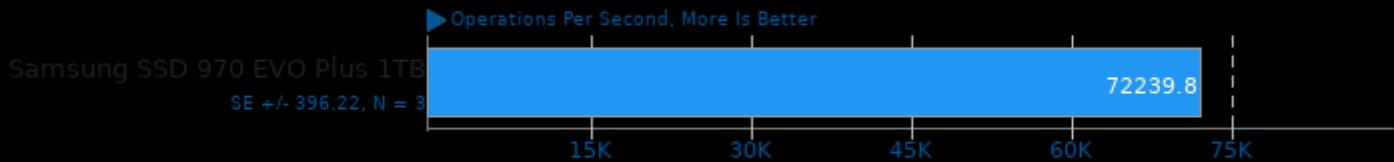
Method: Get



1. (CC) gcc options: -O2 -lm -rdynamic

Memcached mcperf 1.5.10

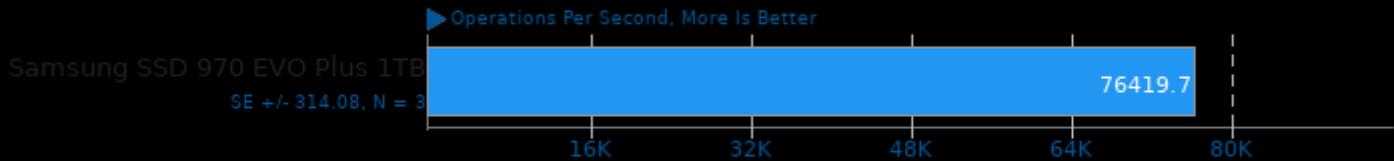
Method: Set



1. (CC) gcc options: -O2 -lm -rdynamic

Memcached mcperf 1.5.10

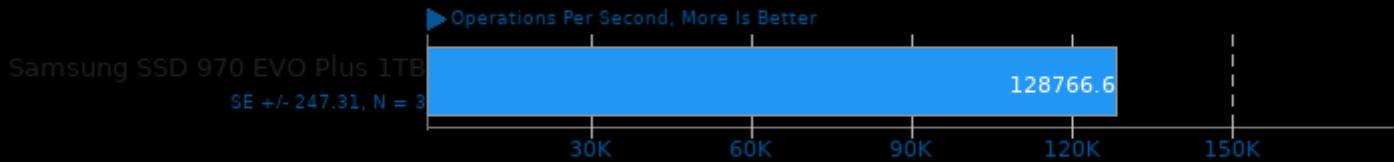
Method: Append



1. (CC) gcc options: -O2 -lm -rdynamic

Memcached mcperf 1.5.10

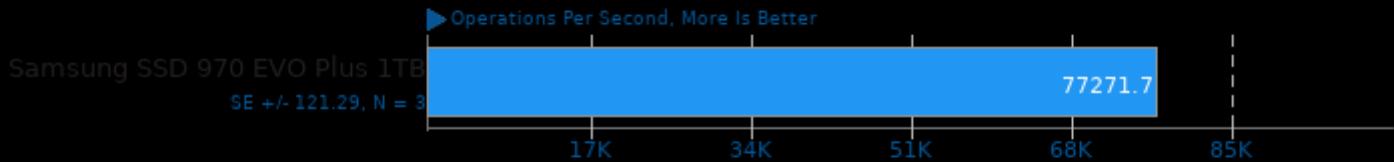
Method: Delete



1. (CC) gcc options: -O2 -lm -rdynamic

Memcached mcperf 1.5.10

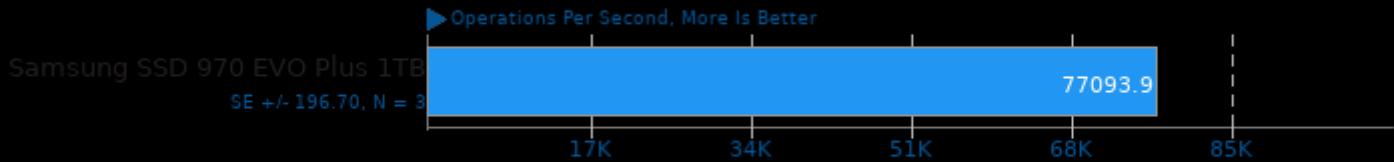
Method: Prepend



1. (CC) gcc options: -O2 -lm -rdynamic

Memcached mcperf 1.5.10

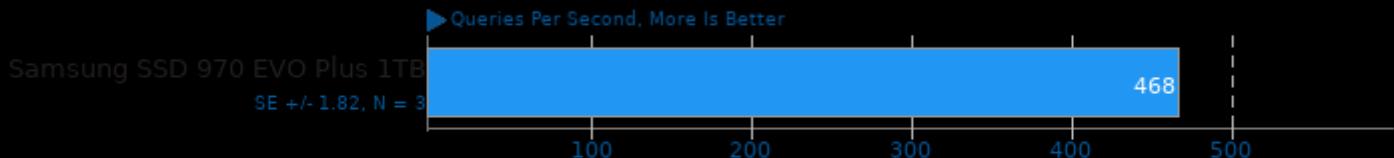
Method: Replace



1. (CC) gcc options: -O2 -lm -rdynamic

MariaDB 10.3.8

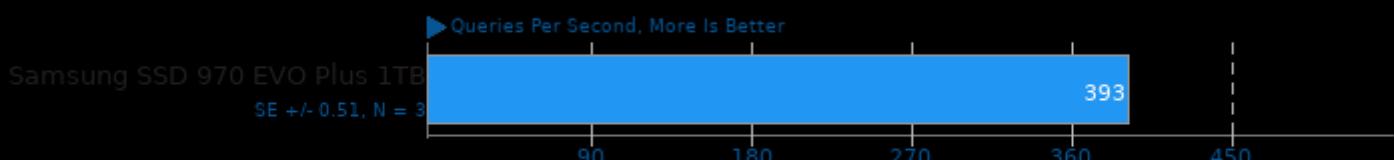
Clients: 1



1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -lizma -lbz2 -laio -Inuma -lz -lm -lpcres -lcrypt -lssl -lcrypto -ldl

MariaDB 10.3.8

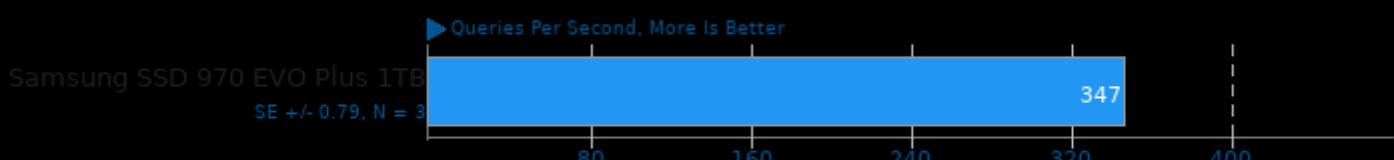
Clients: 16



1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -lizma -lbz2 -laio -Inuma -lz -lm -lpcres -lcrypt -lssl -lcrypto -ldl

MariaDB 10.3.8

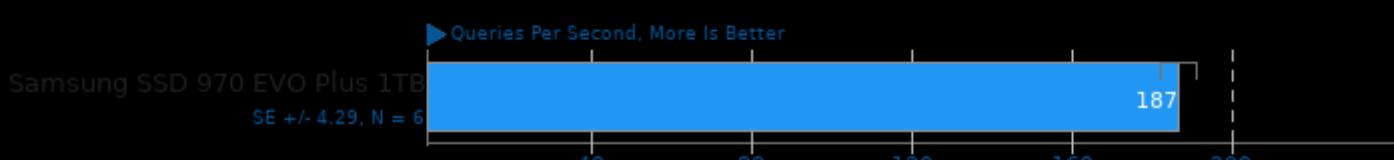
Clients: 64



1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -lizma -lbz2 -laio -Inuma -lz -lm -lpcres -lcrypt -lssl -lcrypto -ldl

MariaDB 10.3.8

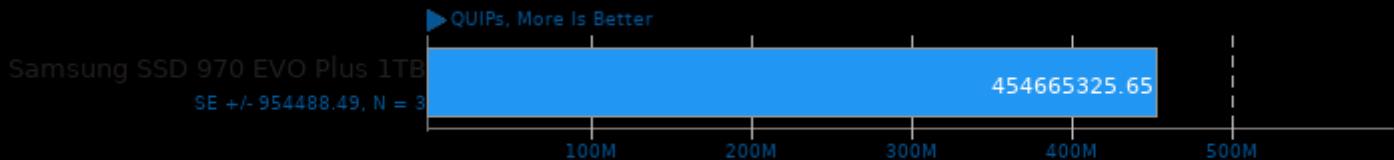
Clients: 256



1. (CXX) g++ options: -pie -fPIC -fstack-protector -fno-rtti -O2 -lpthread -lizma -lbz2 -laio -Inuma -lz -lm -lpcres -lcrypt -lssl -lcrypto -ldl

Hierarchical INTegration 1.0

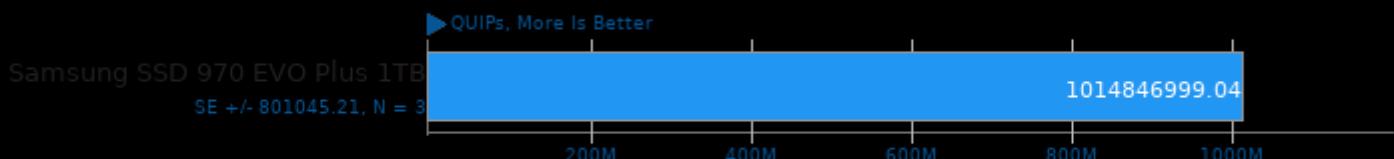
Test: FLOAT



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

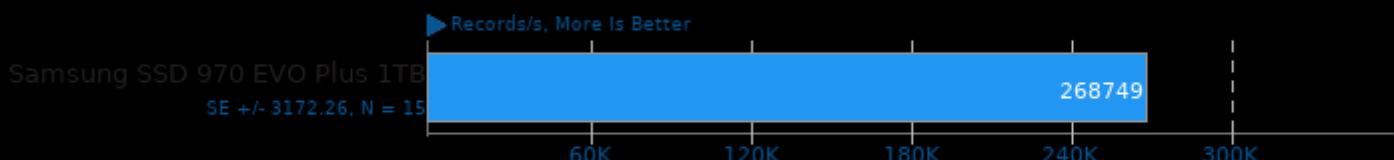
Hierarchical INTegration 1.0

Test: DOUBLE



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

ebizzy 0.3



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

Redis 4.0.8

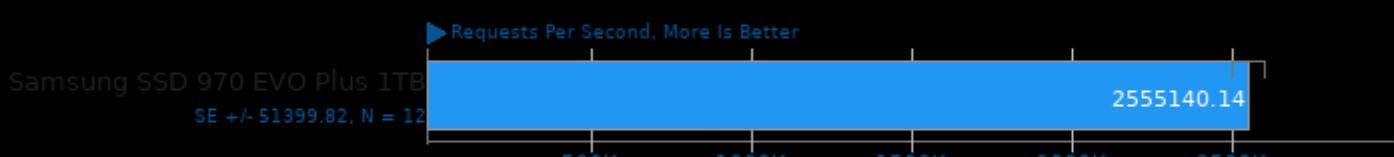
Test: LPOP



1. (CC) gcc options: -ggdb -rdynamic -lm -ldl -pthread

Redis 4.0.8

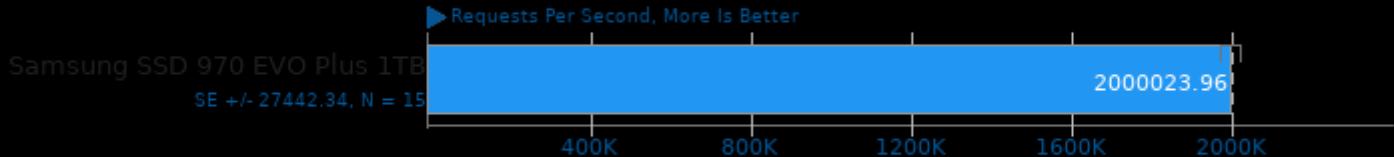
Test: SADD



1. (CC) gcc options: -ggdb -rdynamic -lm -ldl -pthread

Redis 4.0.8

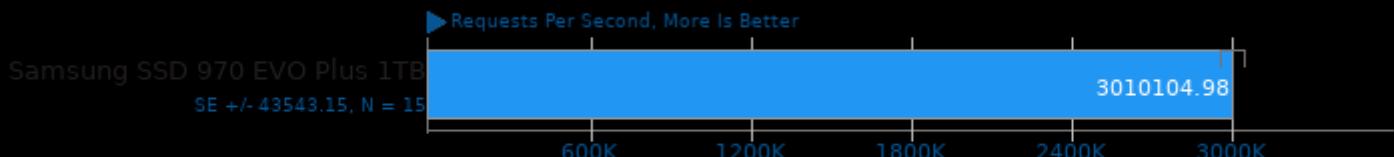
Test: LPUSH



1. (CC) gcc options: -ggdb -rdynamic -lm -ldl -pthread

Redis 4.0.8

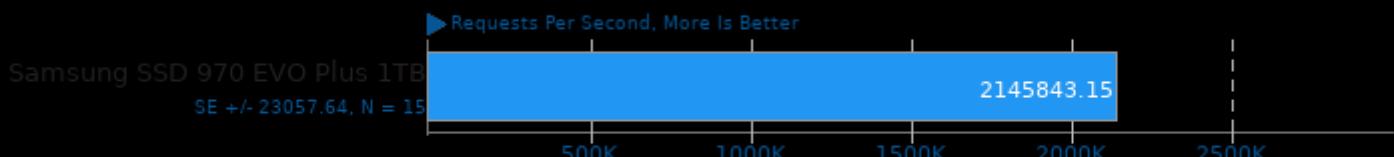
Test: GET



1. (CC) gcc options: -ggdb -rdynamic -lm -ldl -pthread

Redis 4.0.8

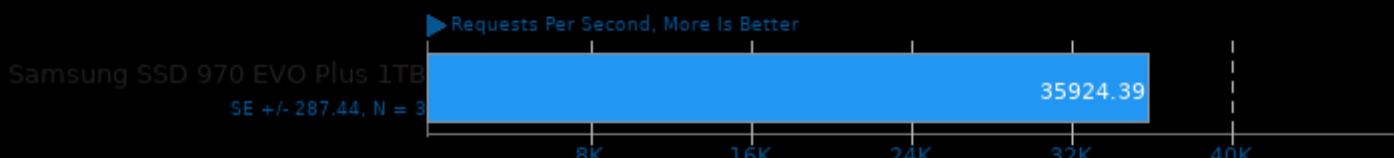
Test: SET



1. (CC) gcc options: -ggdb -rdynamic -lm -ldl -pthread

NGINX Benchmark 1.9.9

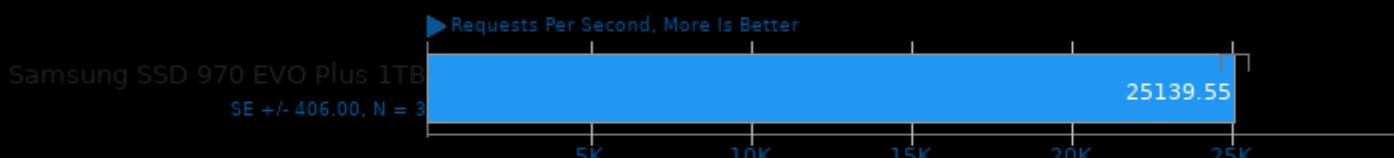
Static Web Page Serving



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

Apache Benchmark 2.4.29

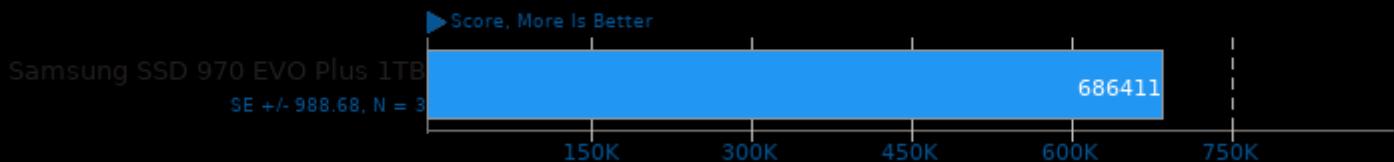
Static Web Page Serving



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

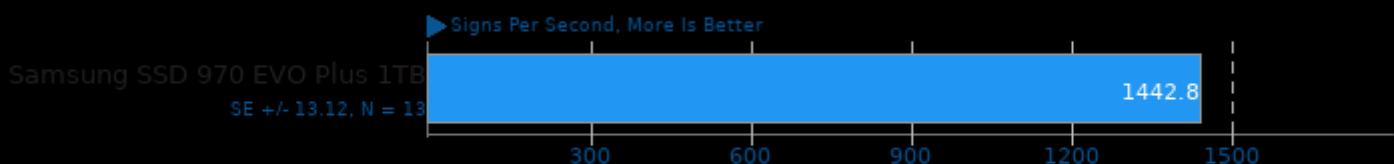
PHPBench 0.8.1

PHP Benchmark Suite



OpenSSL 1.1.1

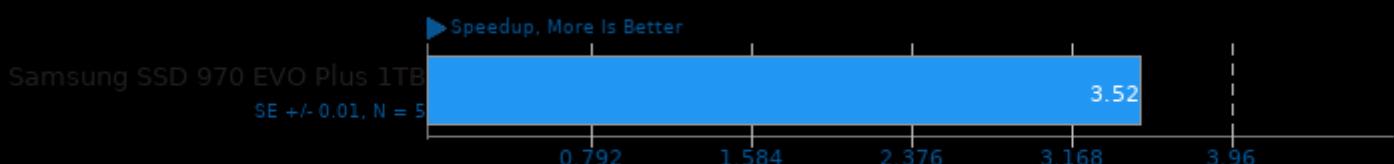
RSA 4096-bit Performance



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

CLOMP 3.3

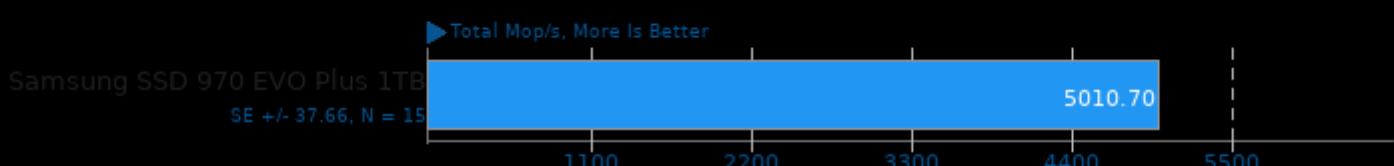
Static OMP Speedup



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

NAS Parallel Benchmarks 3.3.1

Test / Class: BT.A

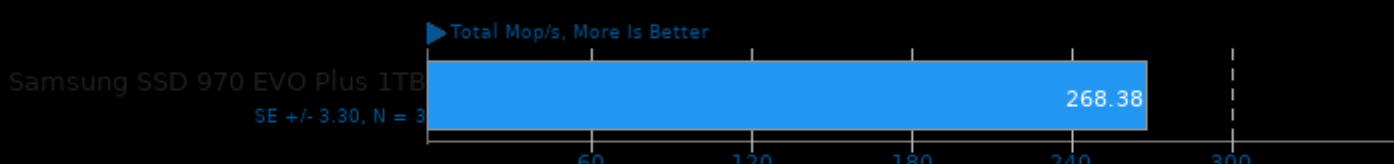


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 2.1.1

NAS Parallel Benchmarks 3.3.1

Test / Class: EP.C

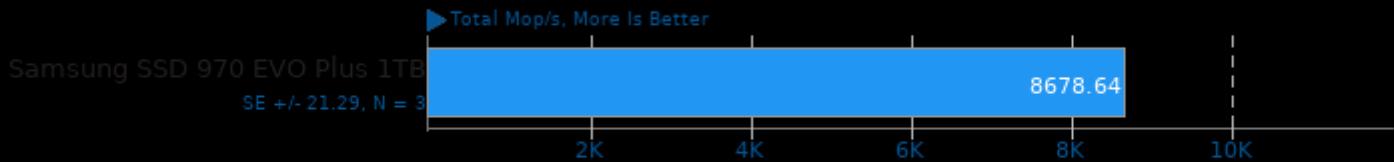


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 2.1.1

NAS Parallel Benchmarks 3.3.1

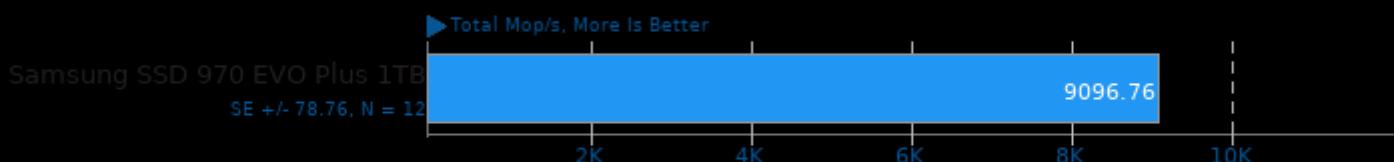
Test / Class: FT.A



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

NAS Parallel Benchmarks 3.3.1

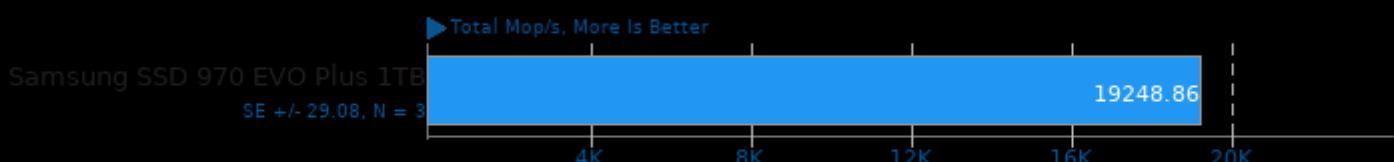
Test / Class: FT.B



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

NAS Parallel Benchmarks 3.3.1

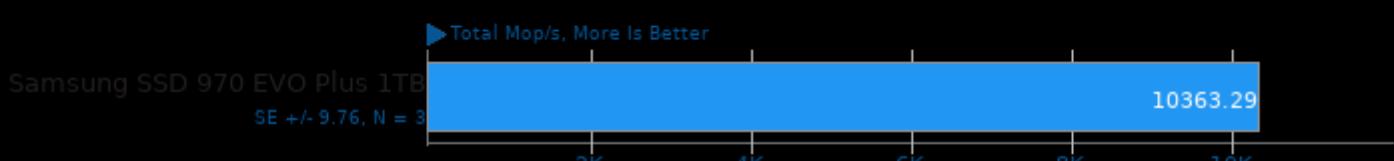
Test / Class: LU.A



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

NAS Parallel Benchmarks 3.3.1

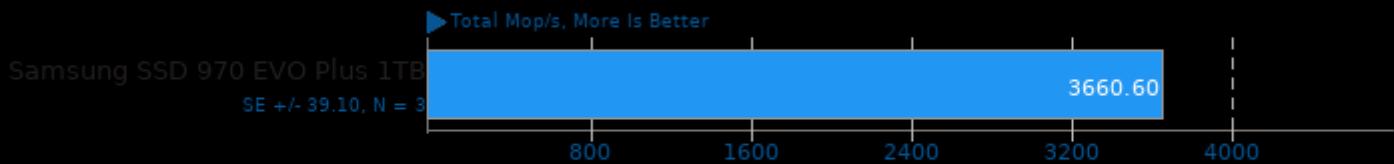
Test / Class: LU.C



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

NAS Parallel Benchmarks 3.3.1

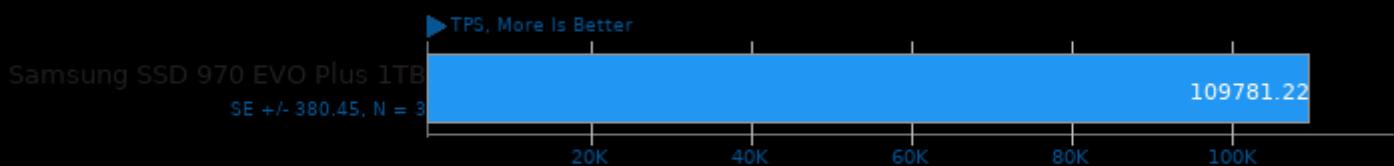
Test / Class: SP.A



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

PostgreSQL pgbench 10.3

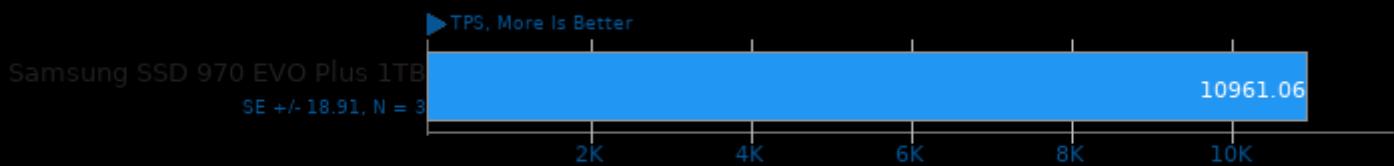
Scaling: Buffer Test - Test: Normal Load - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -lcrypt -ldl -lm

PostgreSQL pgbench 10.3

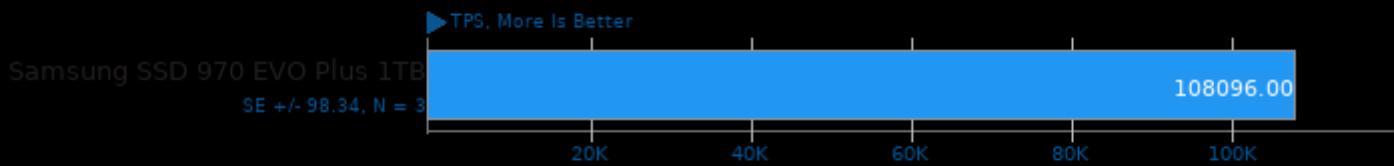
Scaling: Buffer Test - Test: Normal Load - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -lcrypt -ldl -lm

PostgreSQL pgbench 10.3

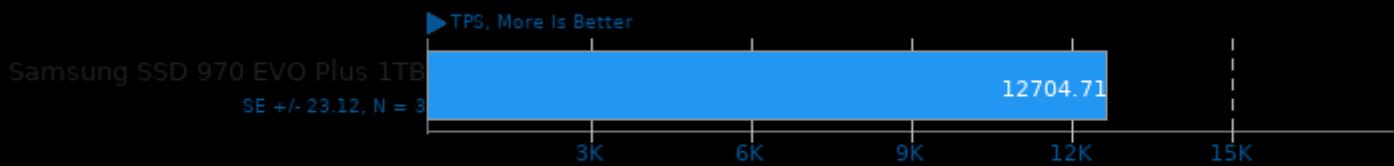
Scaling: Buffer Test - Test: Heavy Contention - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -lcrypt -ldl -lm

PostgreSQL pgbench 10.3

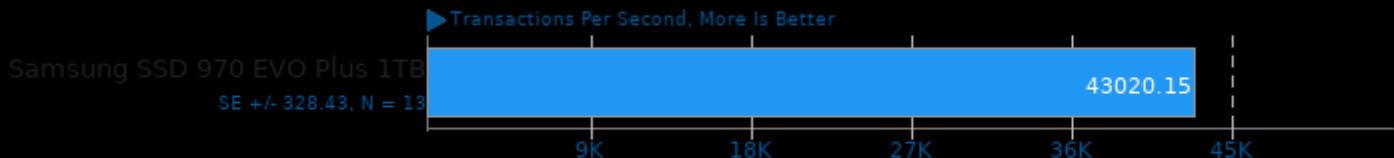
Scaling: Buffer Test - Test: Heavy Contention - Mode: Read Write



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -lcrypt -ldl -lm

Apache Siege 2.4.29

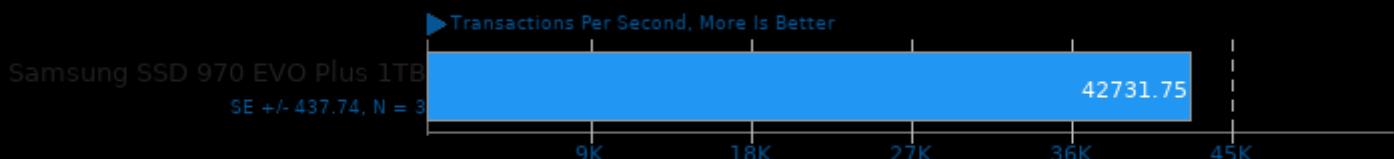
Concurrent Users: 200



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

Apache Siege 2.4.29

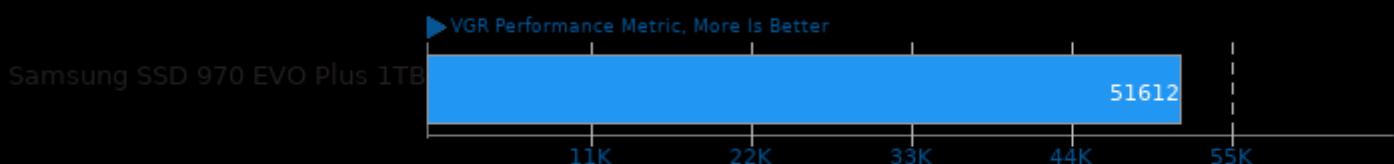
Concurrent Users: 250



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

BRL-CAD 7.28.0

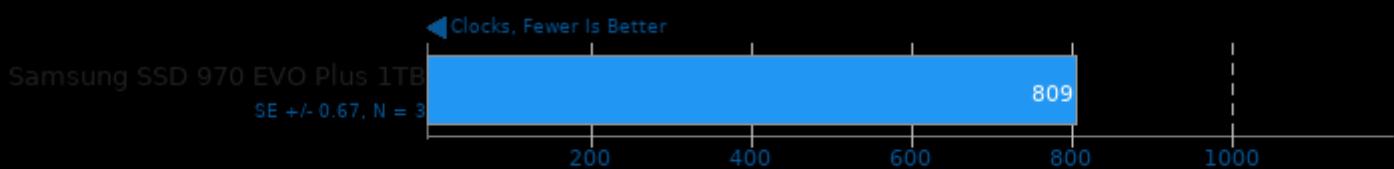
VGR Performance Metric



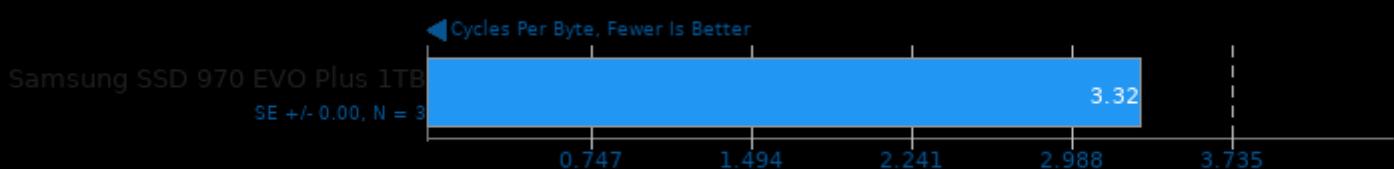
1. (CXX) g++ options: -std=c++98 -pipe -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth=128 -m64 -ggdb3 -O3 -fipa-pta -fstrength-reduce

ctx_clock

Context Switch Time



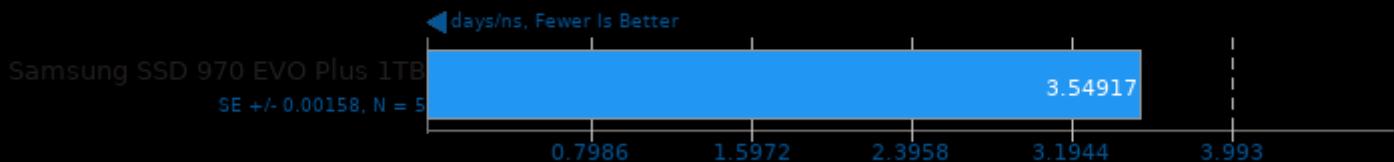
BLAKE2 20170307



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

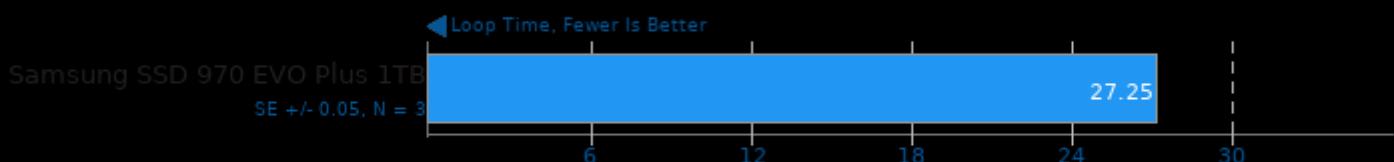
NAMD 2.13b1

ATPase Simulation - 327,506 Atoms



LAMMPS Molecular Dynamics Simulator 1.0

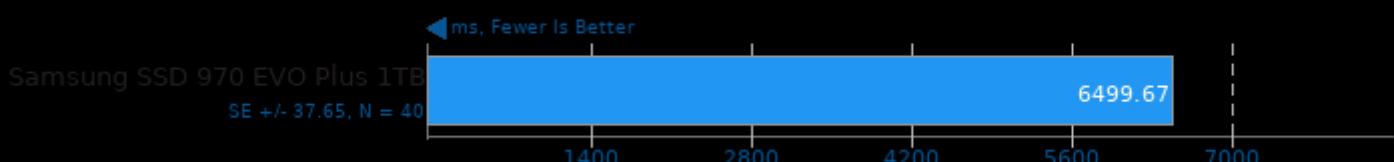
Test: Rhodopsin Protein



1. (CXX) g++ options: -fftw -fmpich

Renaissance 0.9.0

Test: Scala Dotty



Renaissance 0.9.0

Test: Twitter Finagle



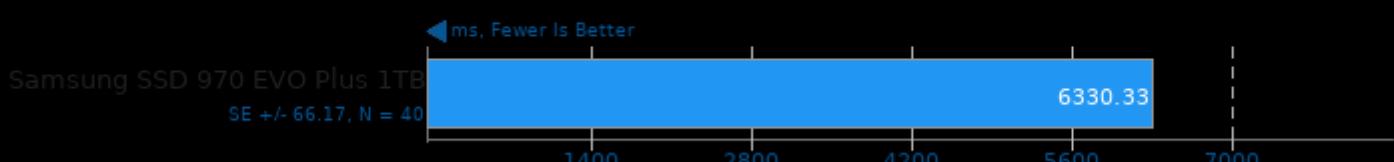
Renaissance 0.9.0

Test: Apache Spark ALS



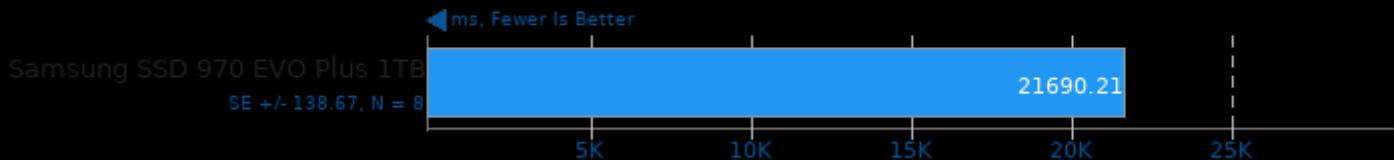
Renaissance 0.9.0

Test: Apache Spark Bayes



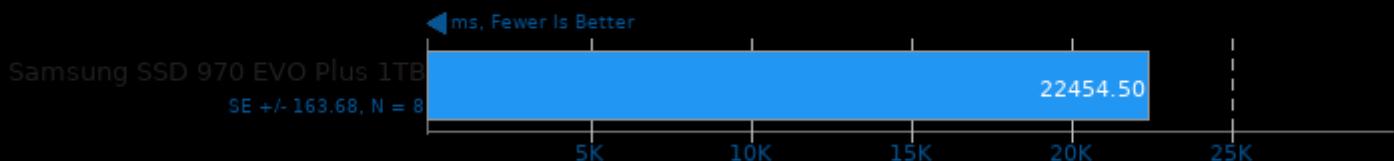
Renaissance 0.9.0

Test: Savina Reactors.IO



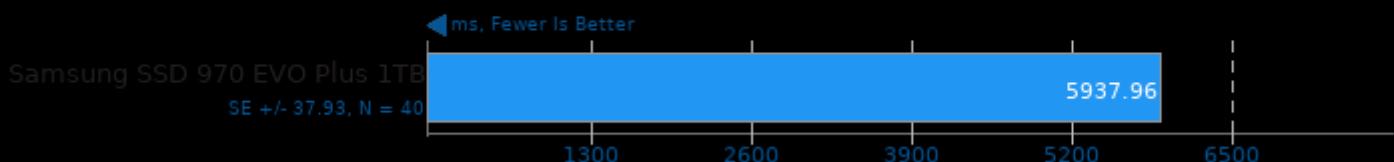
Renaissance 0.9.0

Test: Apache Spark PageRank



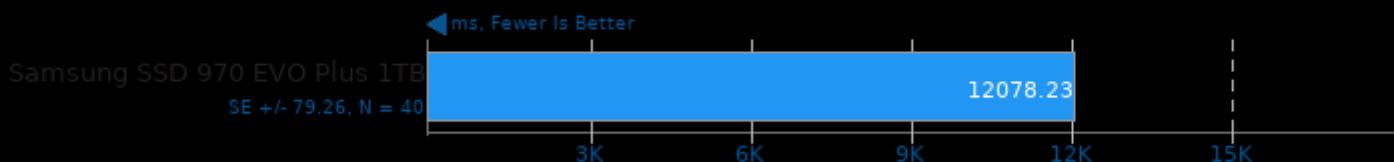
Renaissance 0.9.0

Test: In-Memory Database Shootout



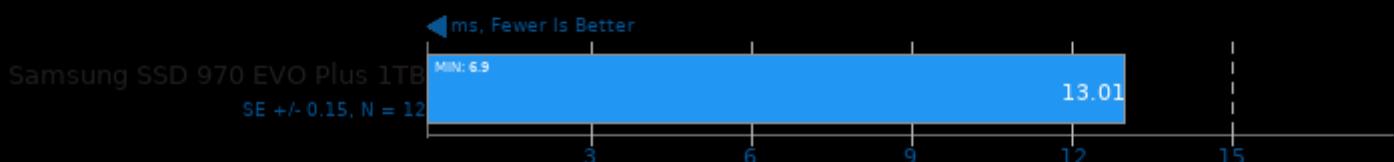
Renaissance 0.9.0

Test: Akka Unbalanced Cobwebbed Tree



MKL-DNN 2019-04-16

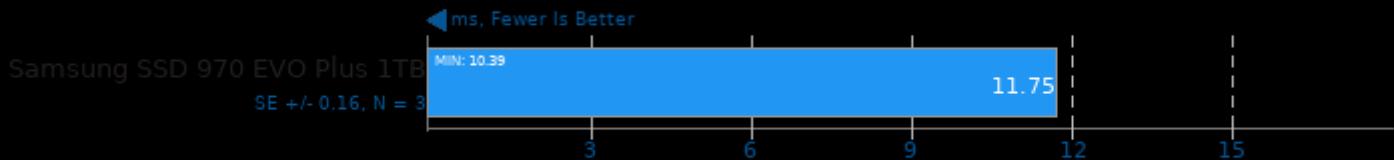
Harness: IP Batch 1D - Data Type: f32



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

MKL-DNN 2019-04-16

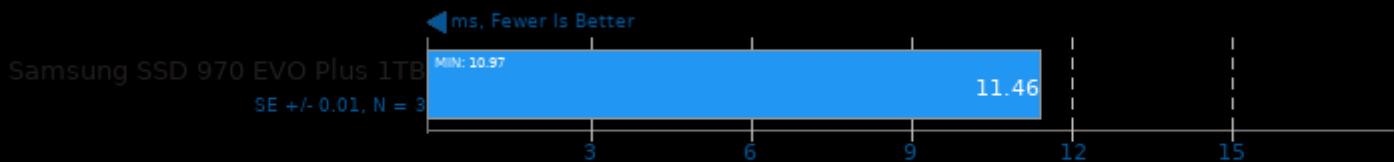
Harness: Deconvolution Batch deconv_1d - Data Type: f32



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

MKL-DNN 2019-04-16

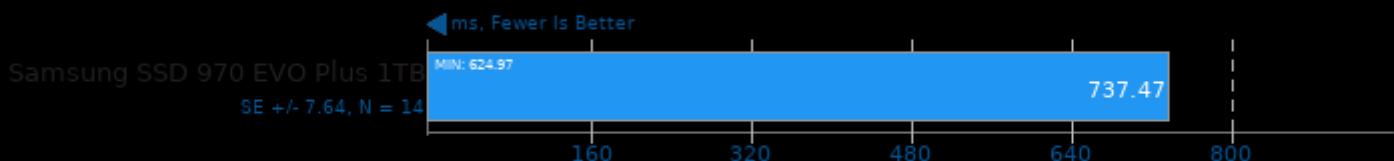
Harness: Deconvolution Batch deconv_3d - Data Type: f32



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

MKL-DNN 2019-04-16

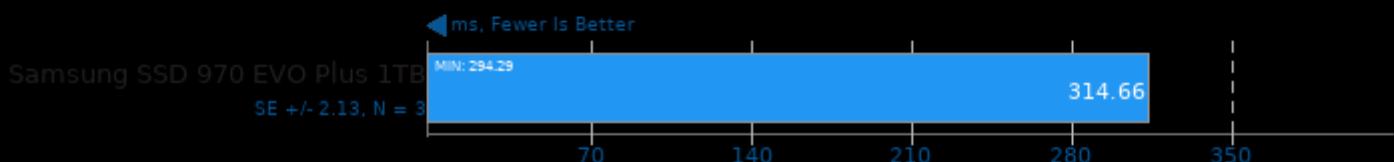
Harness: Convolution Batch conv_alexnet - Data Type: f32



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

MKL-DNN 2019-04-16

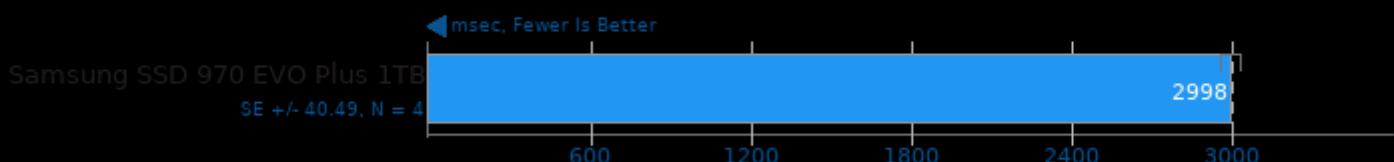
Harness: Convolution Batch conv_googlenet_v3 - Data Type: f32



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

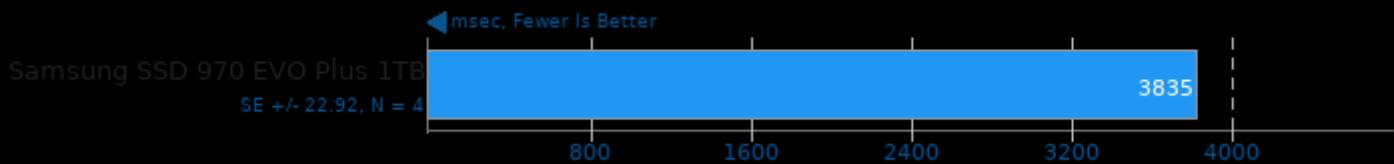
DaCapo Benchmark 9.12-MR1

Java Test: H2



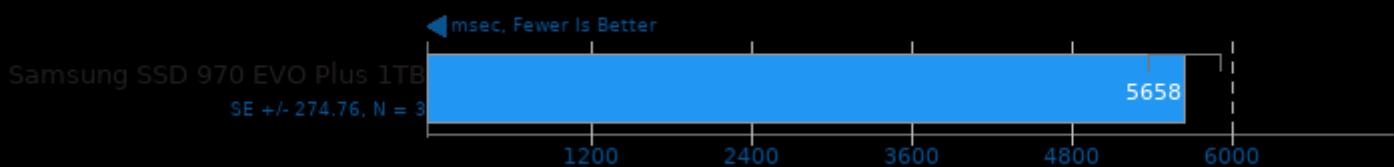
DaCapo Benchmark 9.12-MR1

Java Test: Jython



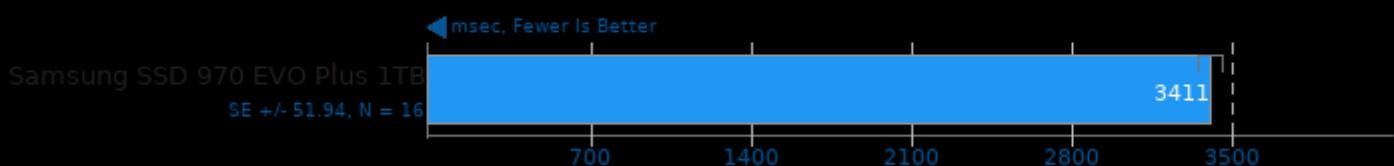
DaCapo Benchmark 9.12-MR1

Java Test: Tradesoap

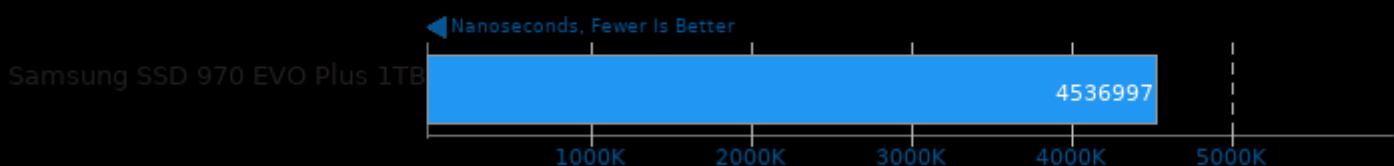


DaCapo Benchmark 9.12-MR1

Java Test: Tradebeans

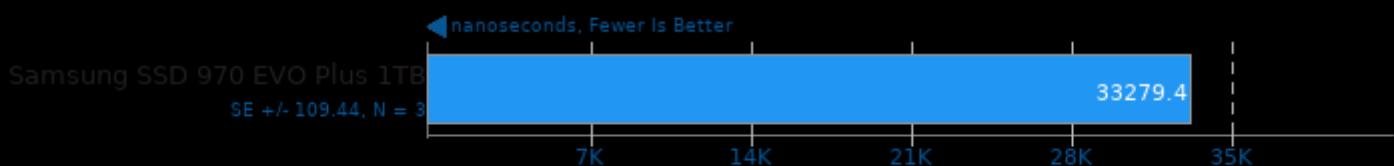


Numpy Benchmark



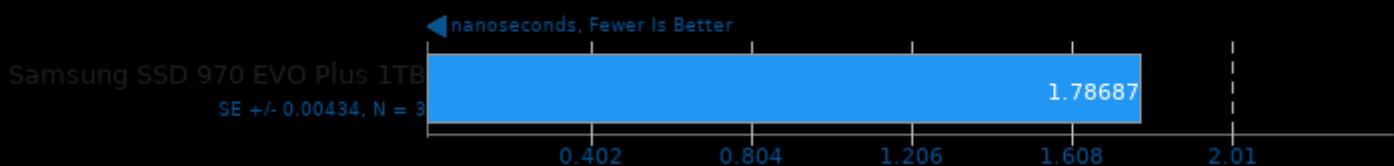
glibc bench 1.0

Benchmark: cos



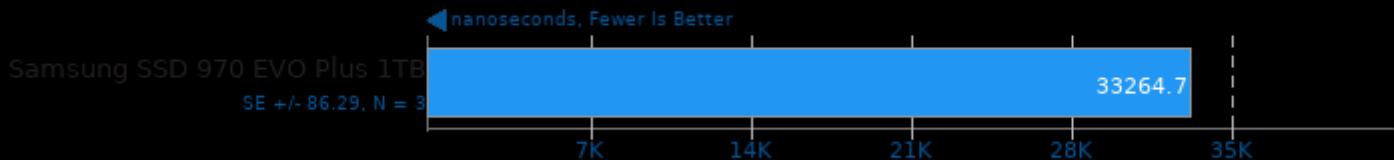
glibc bench 1.0

Benchmark: ffs

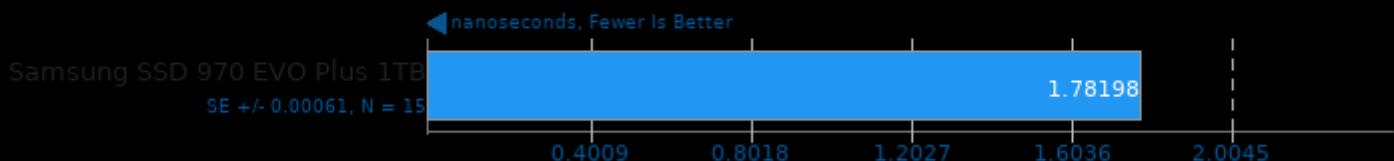


glibc bench 1.0

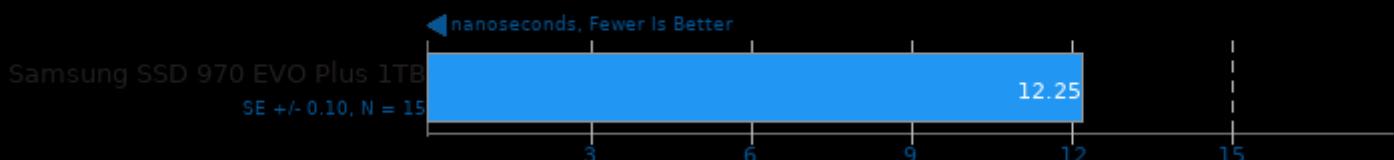
Benchmark: sin

**glibc bench 1.0**

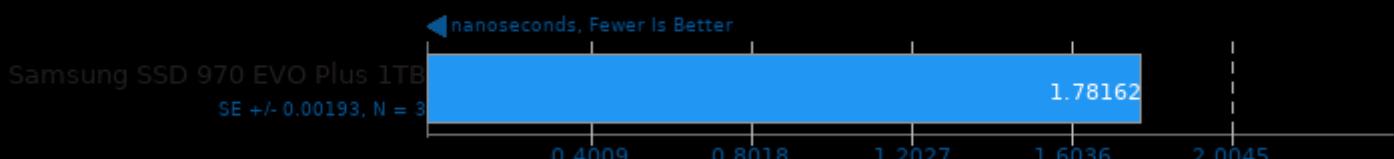
Benchmark: sqrt

**glibc bench 1.0**

Benchmark: tanh

**glibc bench 1.0**

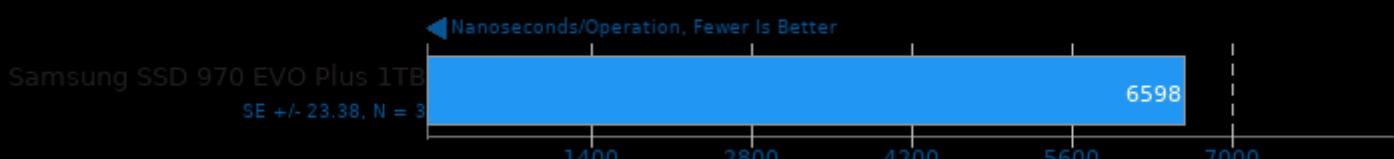
Benchmark: ffsll

**glibc bench 1.0**

Benchmark: pthread_once

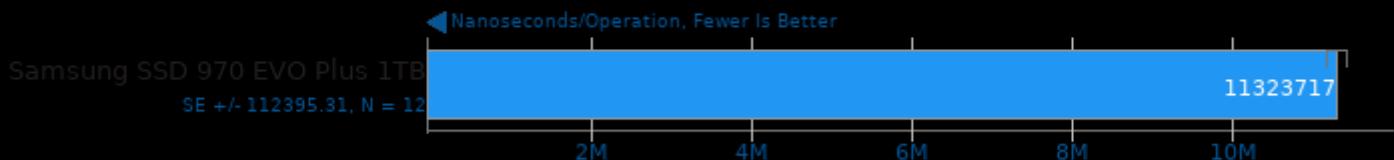
**Go Benchmarks**

Test: http



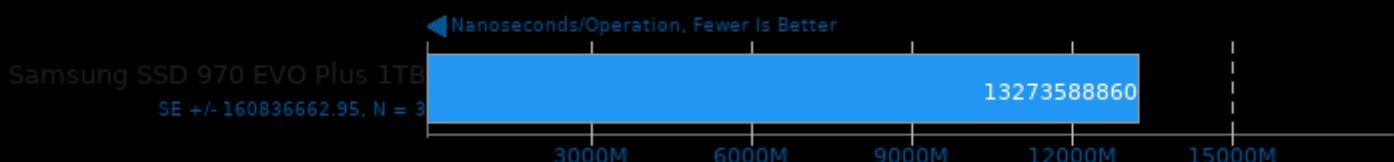
Go Benchmarks

Test: json



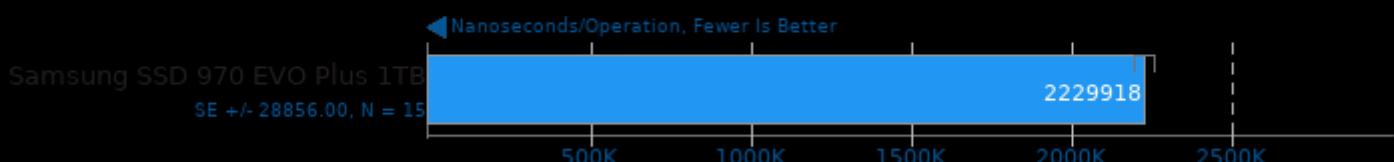
Go Benchmarks

Test: build



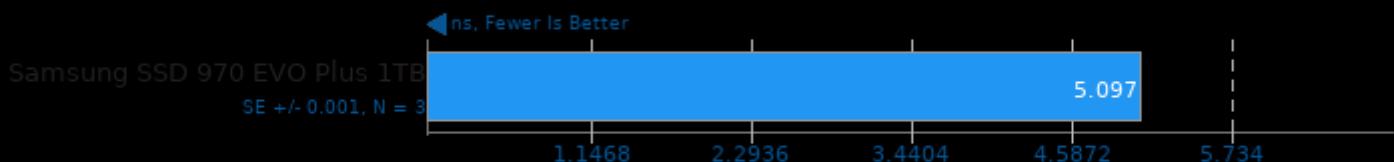
Go Benchmarks

Test: garbage



Multichase Pointer Chaser

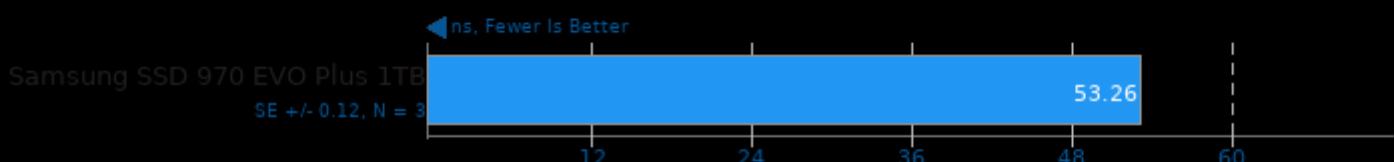
Test: 4MB Array, 64 Byte Stride



1. (CC) gcc options: -O2 -static -pthread -lrt

Multichase Pointer Chaser

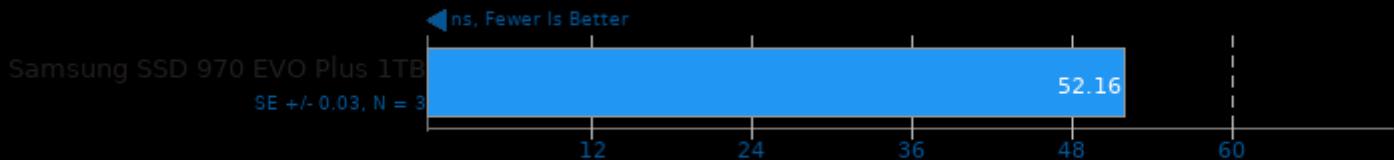
Test: 1GB Array, 256 Byte Stride



1. (CC) gcc options: -O2 -static -pthread -lrt

Multichase Pointer Chaser

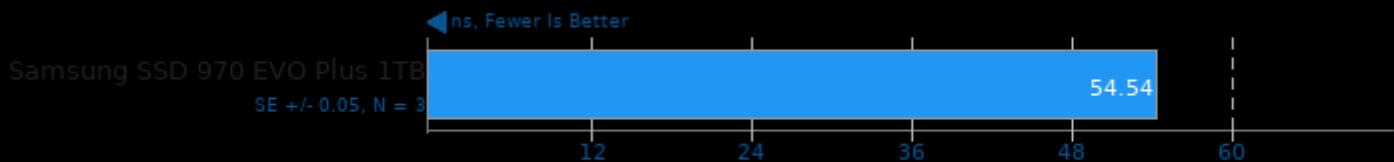
Test: 256MB Array, 256 Byte Stride



1. (CC) gcc options: -O2 -static -pthread -lrt

Multichase Pointer Chaser

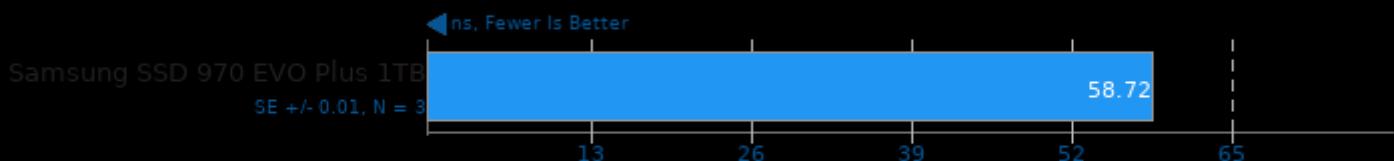
Test: 1GB Array, 256 Byte Stride, 2 Threads



1. (CC) gcc options: -O2 -static -pthread -lrt

Multichase Pointer Chaser

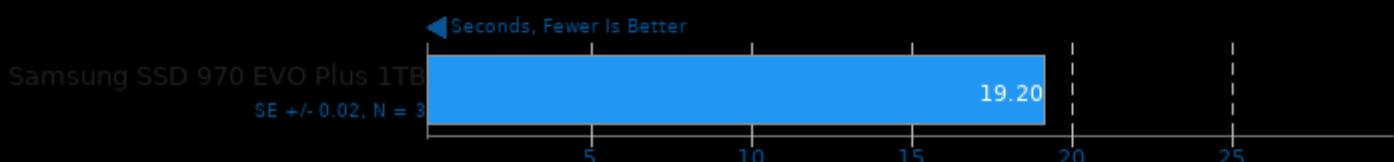
Test: 1GB Array, 256 Byte Stride, 4 Threads



1. (CC) gcc options: -O2 -static -pthread -lrt

t-test1 2017-01-13

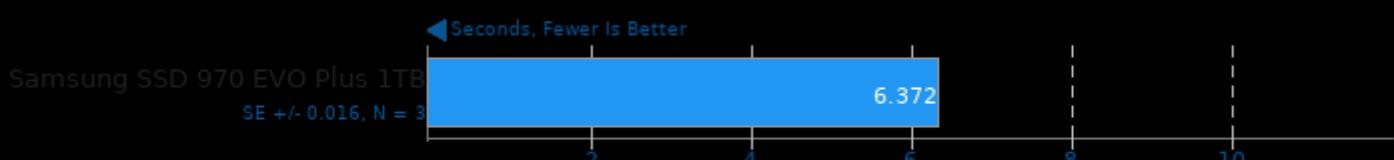
Threads: 1



1. (CC) gcc options: -pthread

t-test1 2017-01-13

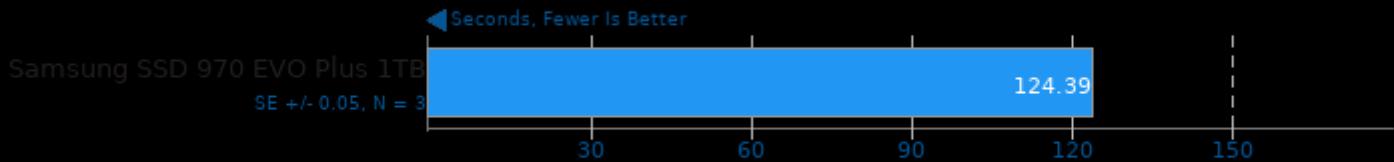
Threads: 2



1. (CC) gcc options: -pthread

Parboil 2.5

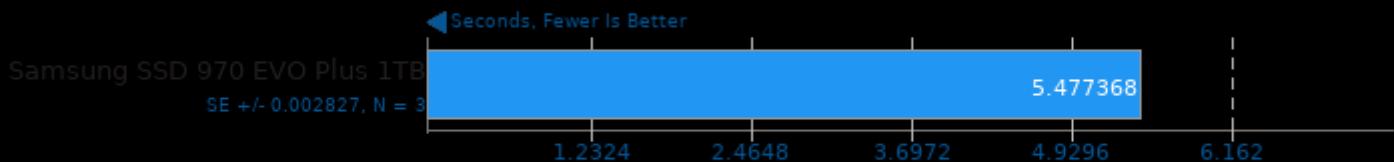
Test: OpenMP LBM



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

Parboil 2.5

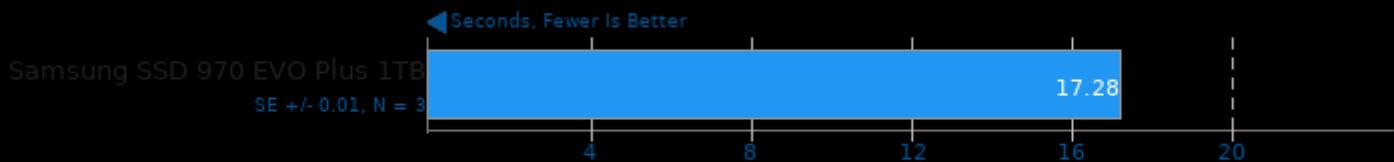
Test: OpenMP CUTCP



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

Parboil 2.5

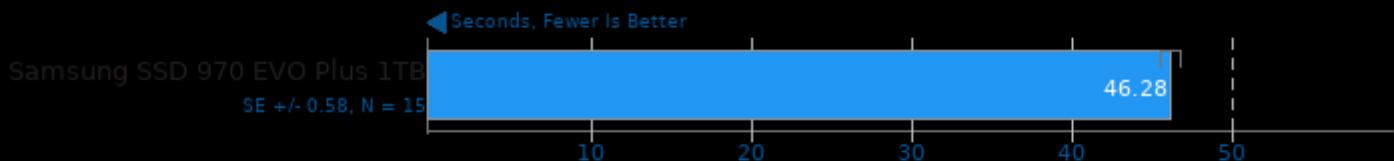
Test: OpenMP Stencil



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

Parboil 2.5

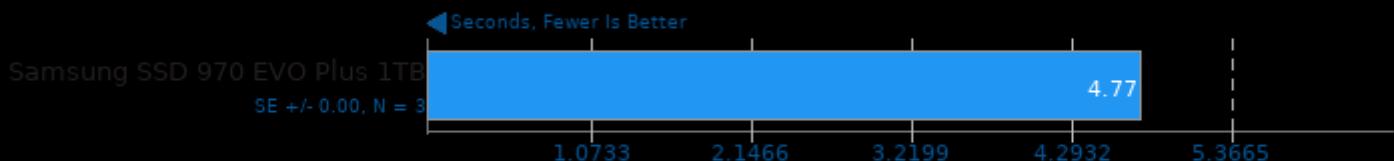
Test: OpenMP MRI Gridding



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

CloverLeaf

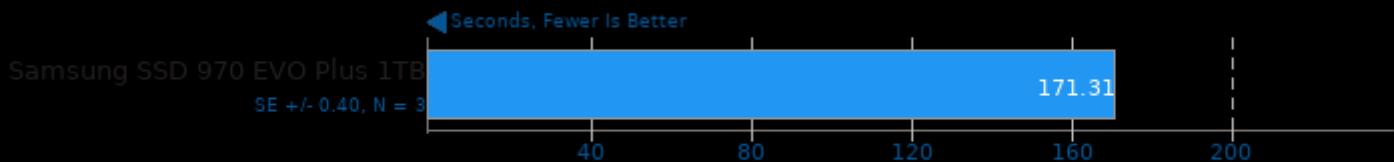
Lagrangian-Eulerian Hydrodynamics



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

Rodinia 2.4

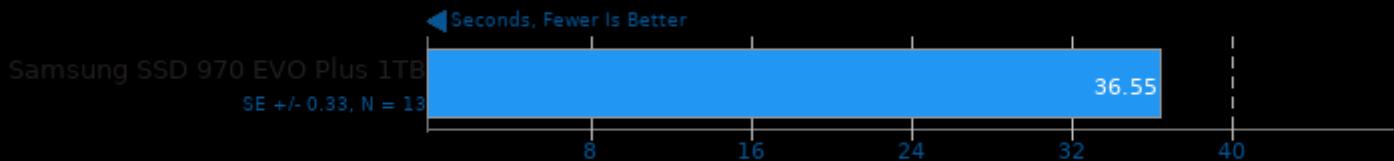
Test: OpenMP LavaMD



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

Rodinia 2.4

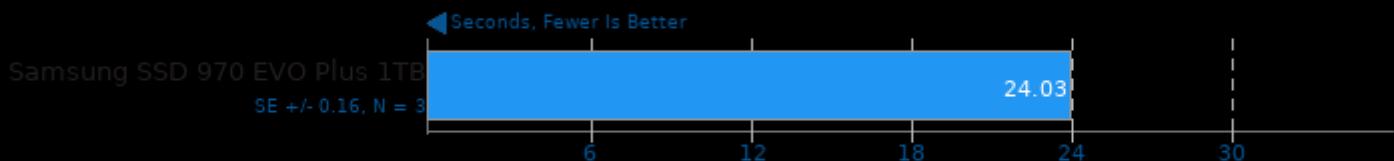
Test: OpenMP CFD Solver



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

Rodinia 2.4

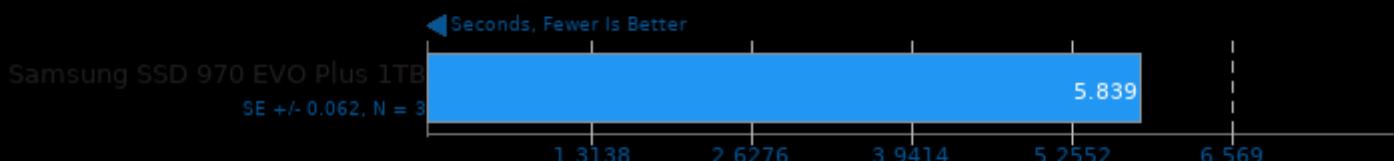
Test: OpenMP Streamcluster



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

Timed HMMer Search 2.3.2

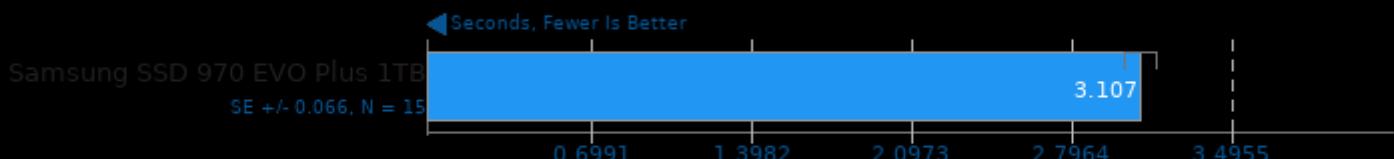
Pfam Database Search



1. (CC) gcc options: -O2 -fthread -lhmmer -lsquid -lm

Timed MAFFT Alignment 7.392

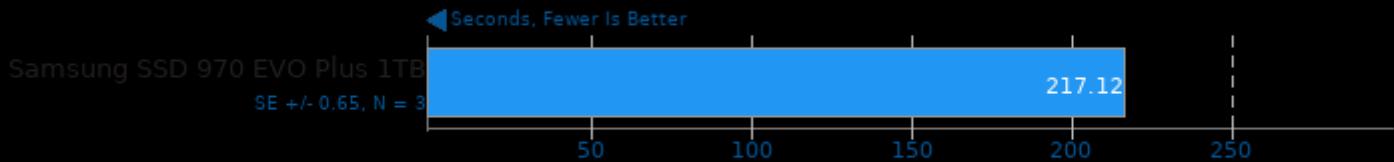
Multiple Sequence Alignment



1. (CC) gcc options: -std=c99 -O3 -lm -fthread

Timed MrBayes Analysis 3.1.2

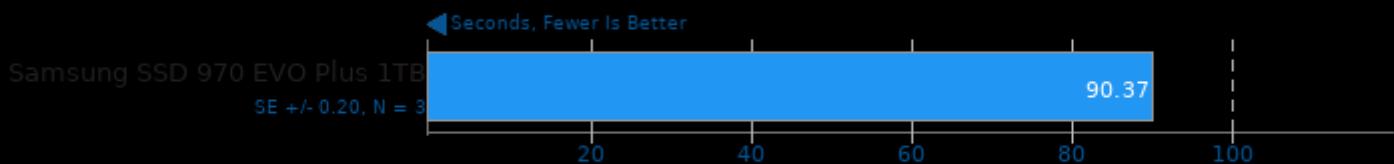
Primate Phylogeny Analysis



1. (CC) gcc options: -O3 -mssse -mfpmath=sse -march=native -lm -pthread -lmpi

Open FMM Nero2D 2.0.2

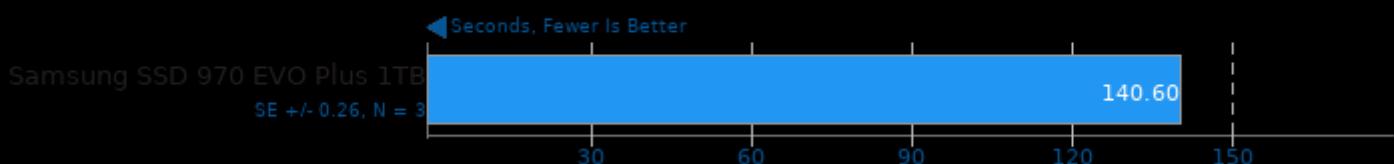
Total Time



1. (CXX) g++ options: -O2 -fftw3 -llapack -lblas -lgfortran -lquadmath -lm -pthread -lmpi_cxx -lmpi

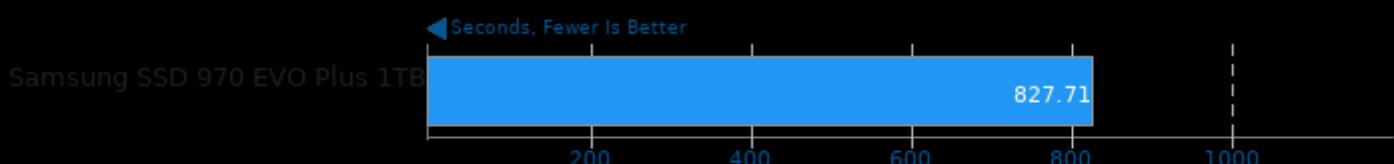
Timed Linux Kernel Compilation 4.18

Time To Compile



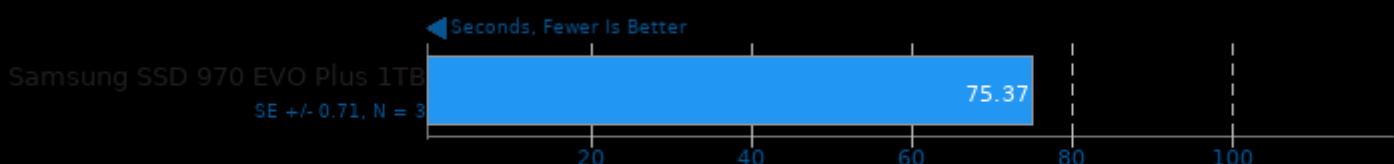
Timed LLVM Compilation 6.0.1

Time To Compile



Timed PHP Compilation 7.1.9

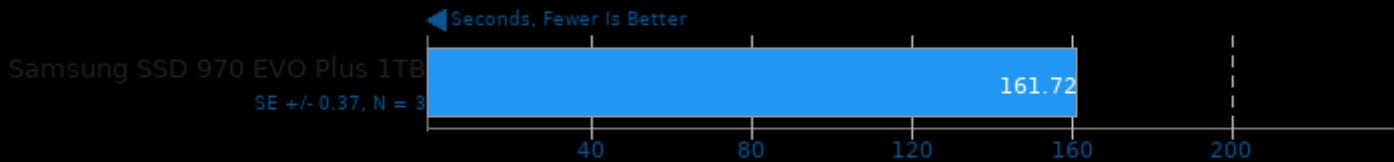
Time To Compile



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

C-Ray 1.1

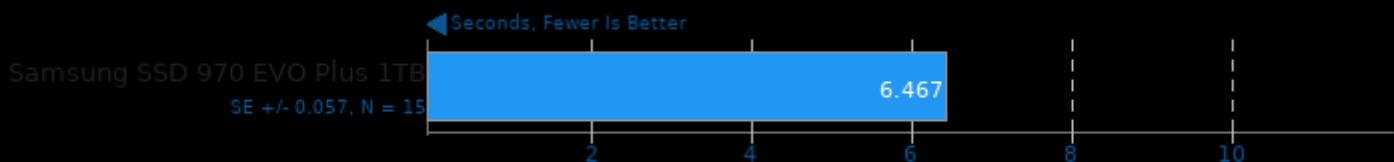
Total Time - 4K, 16 Rays Per Pixel



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

Parallel BZIP2 Compression 1.1.12

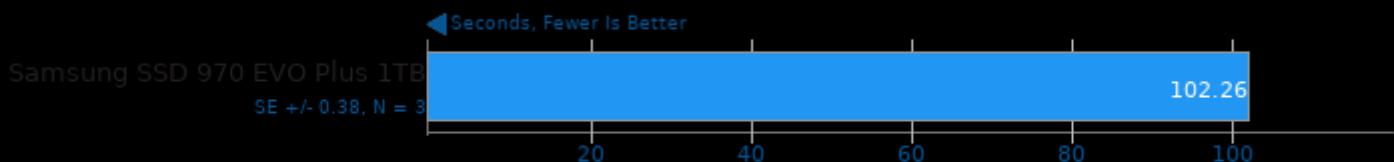
256MB File Compression



1. (CXX) g++ options: -O2 -pthread -lbz2 -lpthread

POV-Ray 3.7.0.7

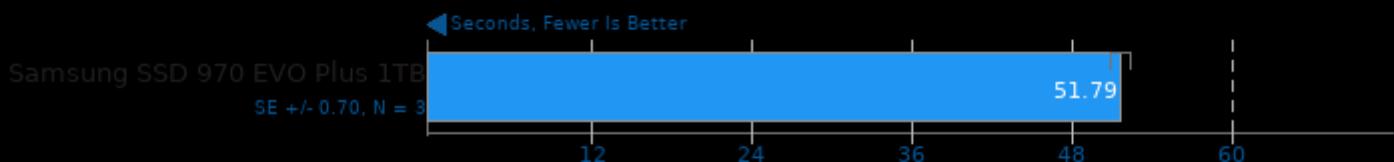
Trace Time



1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -pthread -lSM -ICE -lX11 -ltiff -ljpeg -lpng -lz -lrt -lm -lboost_thread -lboost_system

Primesieve 7.4

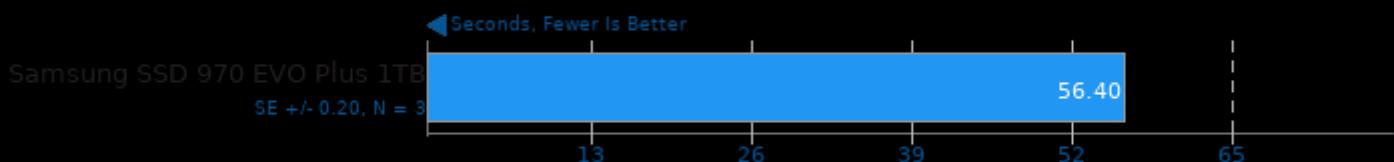
1e12 Prime Number Generation



1. (CXX) g++ options: -O3 -lpthread

Rust Mandelbrot

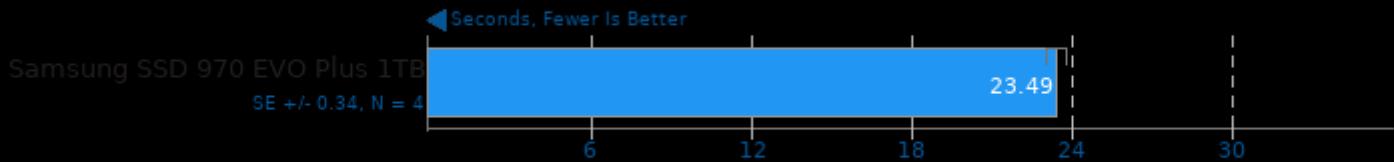
Time To Complete Serial/Parallel Mandelbrot



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

Rust Prime Benchmark

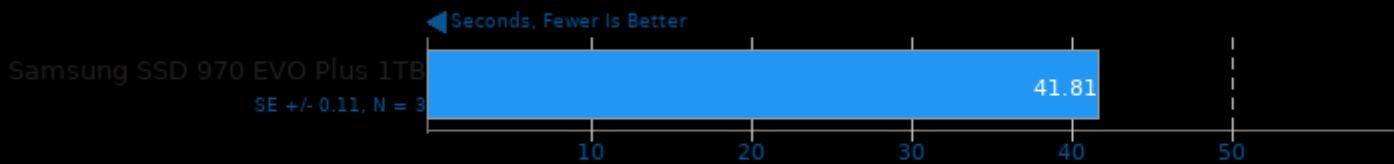
Prime Number Test To 200,000,000



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

XZ Compression 5.2.4

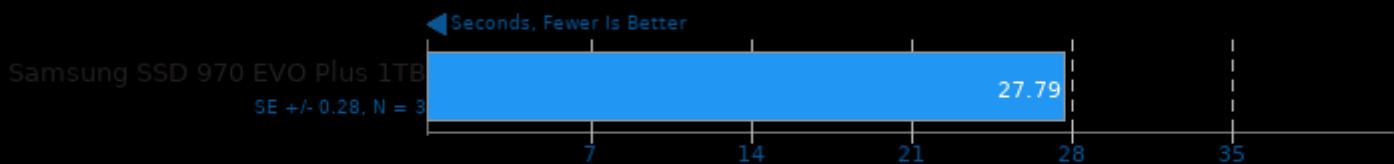
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 9



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

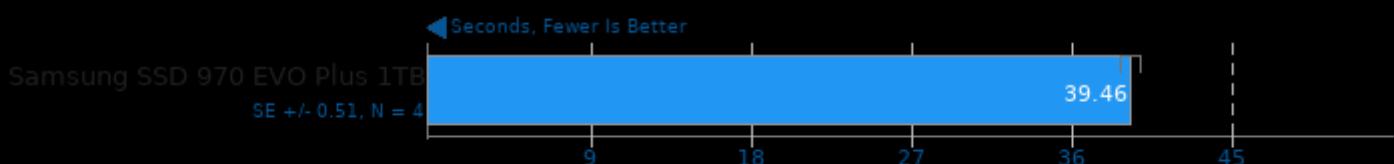
Zstd Compression 1.3.4

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



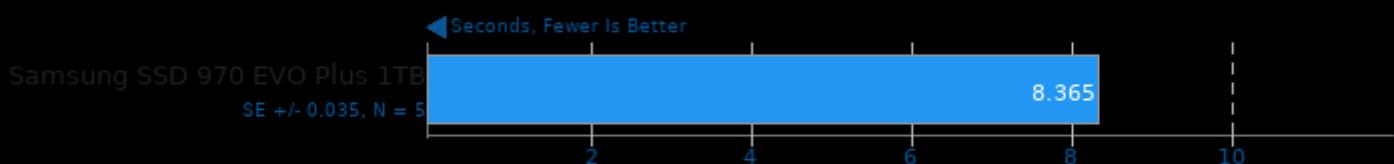
1. (CC) gcc options: -O3 -pthread -lz

Cython benchmark 0.27



FLAC Audio Encoding 1.3.2

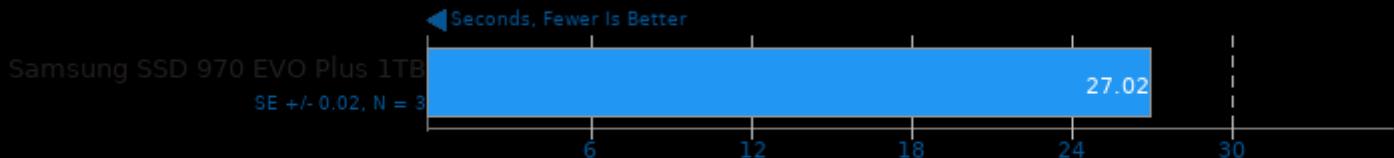
WAV To FLAC



1. (CXX) g++ options: -O2 -fvisibility=hidden -lm

LAME MP3 Encoding 3.100

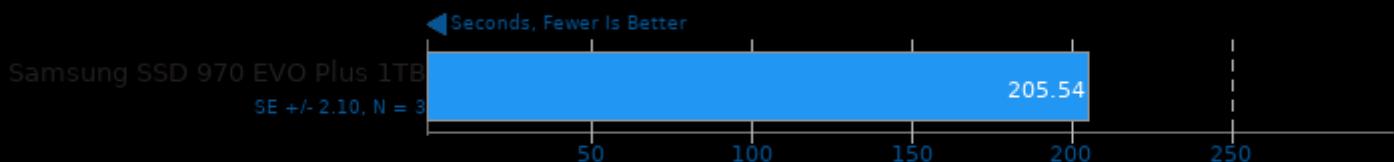
WAV To MP3



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

Hackbench

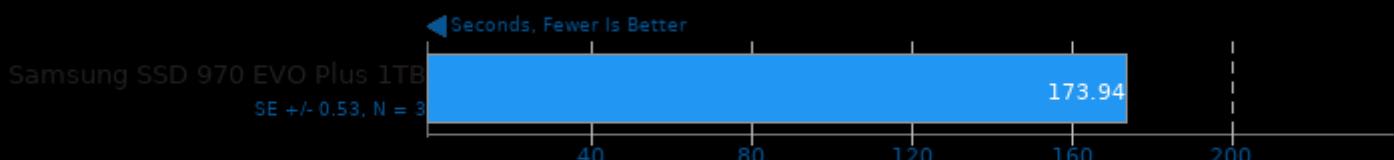
Count: 32 - Type: Process



1. (CC) gcc options: -lpthread

m-queens 1.2

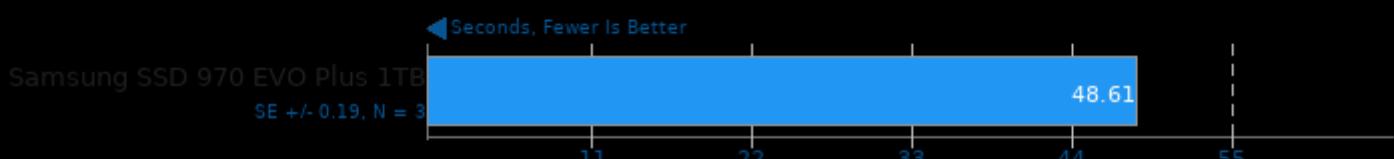
Time To Solve



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

Minion 1.8

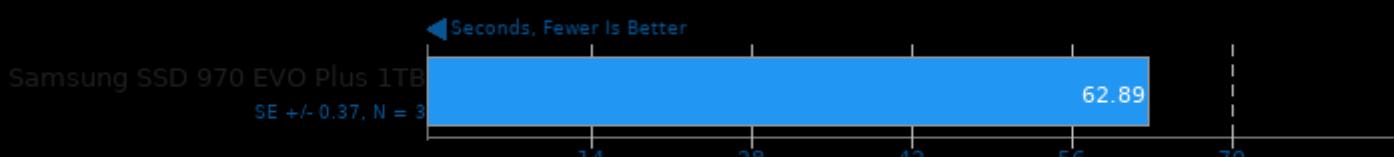
Benchmark: Graceful



1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

Minion 1.8

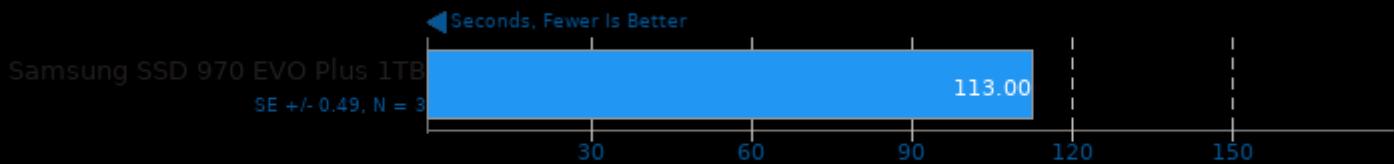
Benchmark: Solitaire



1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

Minion 1.8

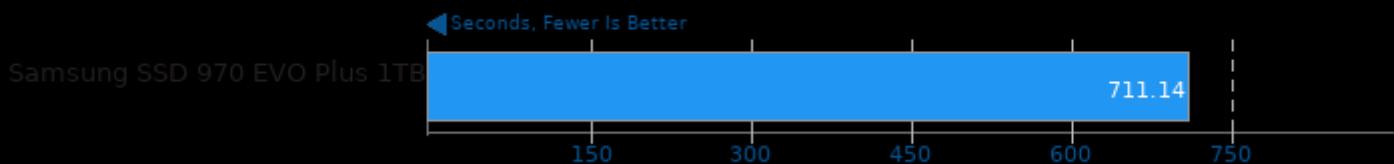
Benchmark: Quasigroup



1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

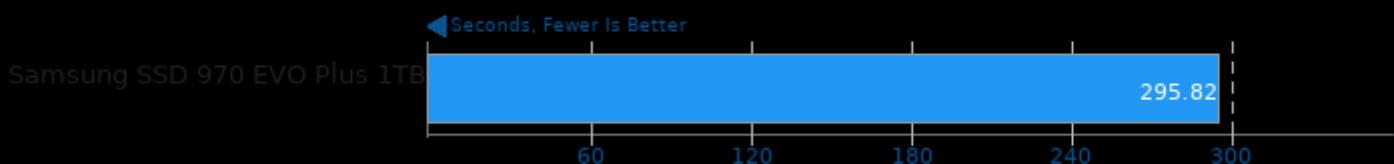
Radiance Benchmark 5.0

Test: Serial

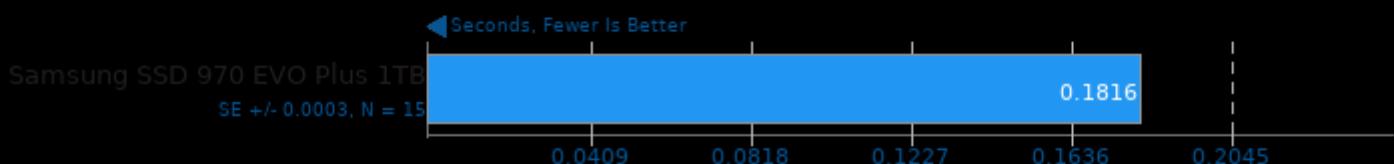


Radiance Benchmark 5.0

Test: SMP Parallel



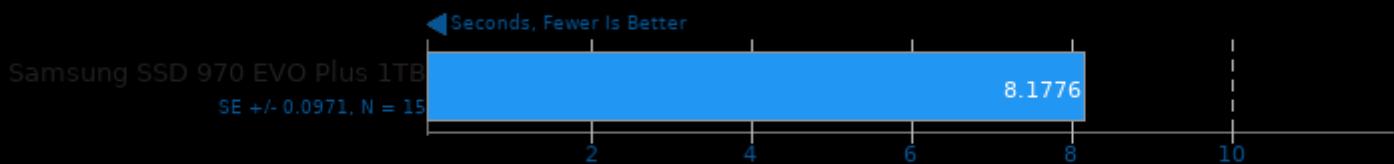
R Benchmark



1. R scripting front-end version 3.4.4 (2018-03-15)

Tachyon 0.98.9

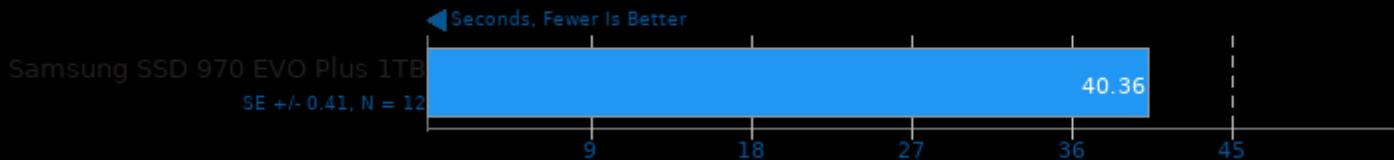
Total Time



1. (CC) gcc options: -m32 -O3 -fomit-frame-pointer -ffast-math -ltachyon -lm -lpthread

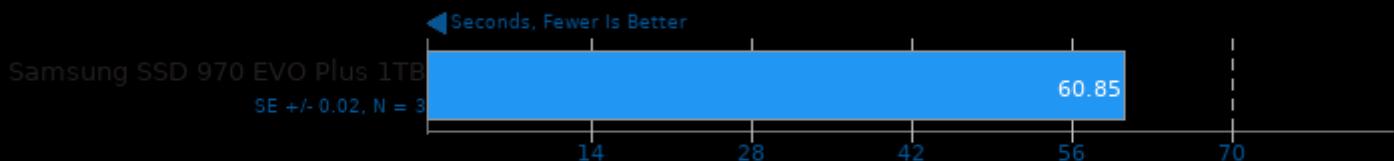
Tensorflow 2017-02-03

Build: Cifar10



CppPerformanceBenchmarks 9

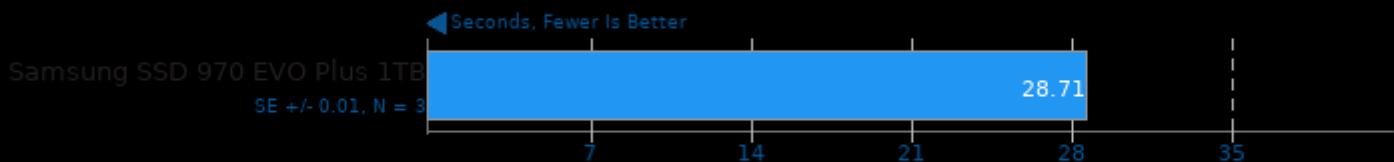
Test: Atol



1. (CXX) g++ options: -std=c++11 -O3

CppPerformanceBenchmarks 9

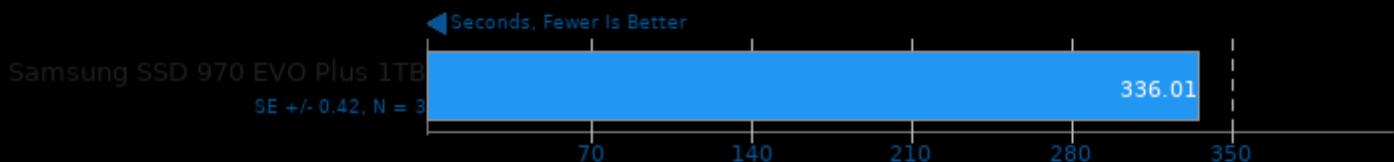
Test: Ctype



1. (CXX) g++ options: -std=c++11 -O3

CppPerformanceBenchmarks 9

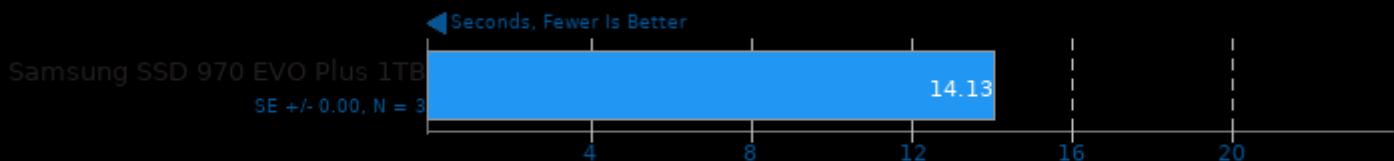
Test: Math Library



1. (CXX) g++ options: -std=c++11 -O3

CppPerformanceBenchmarks 9

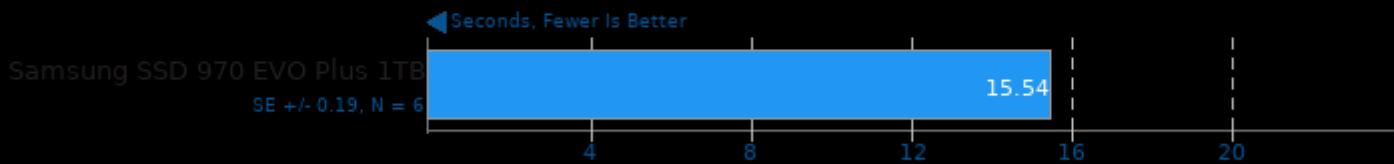
Test: Function Objects



1. (CXX) g++ options: -std=c++11 -O3

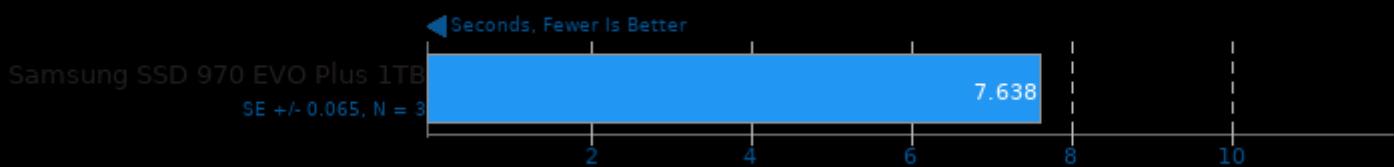
Darktable 2.4.2

Test: Boat - Acceleration: CPU-only



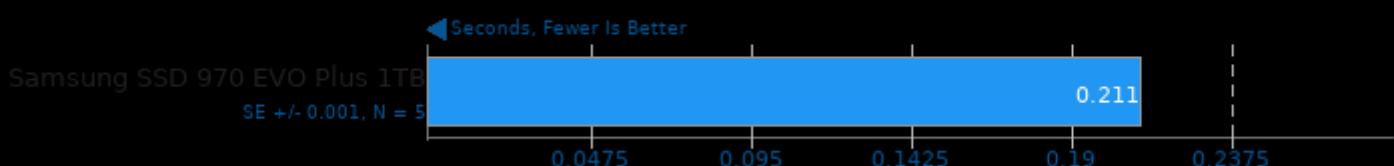
Darktable 2.4.2

Test: Masskrug - Acceleration: CPU-only



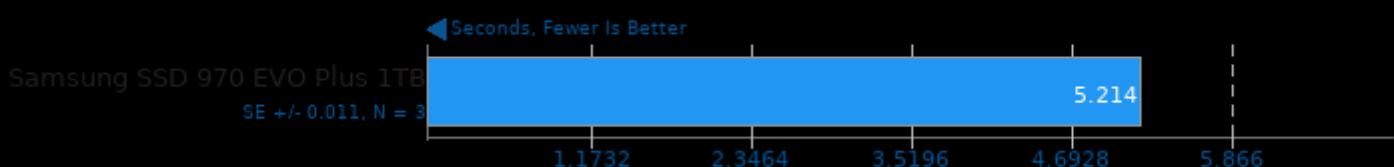
Darktable 2.4.2

Test: Server Rack - Acceleration: CPU-only

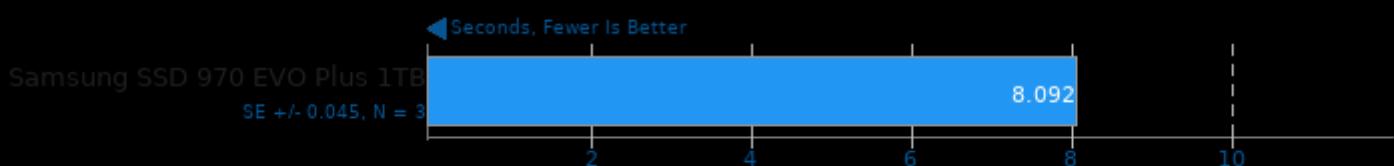


Darktable 2.4.2

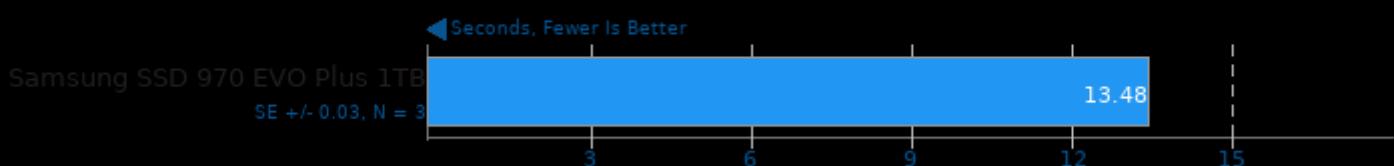
Test: Server Room - Acceleration: CPU-only



GNU Octave Benchmark 4.2.2

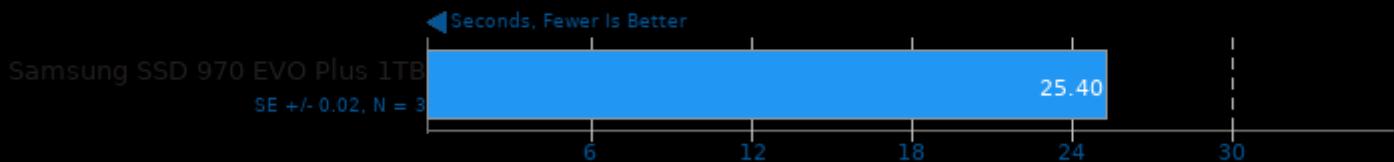


Scikit-Learn 0.17.1



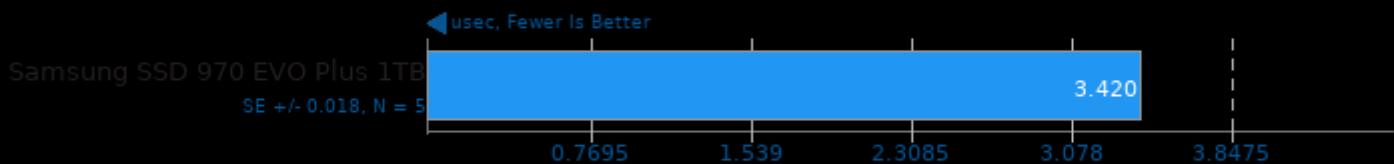
Tesseract OCR 4.0.0-beta.1

Time To OCR 7 Images



Sockperf 3.4

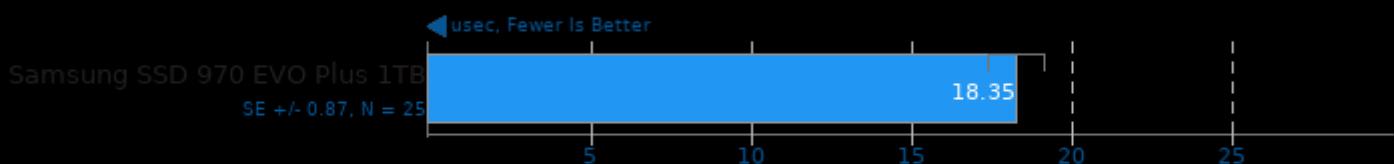
Test: Latency Ping Pong



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

Sockperf 3.4

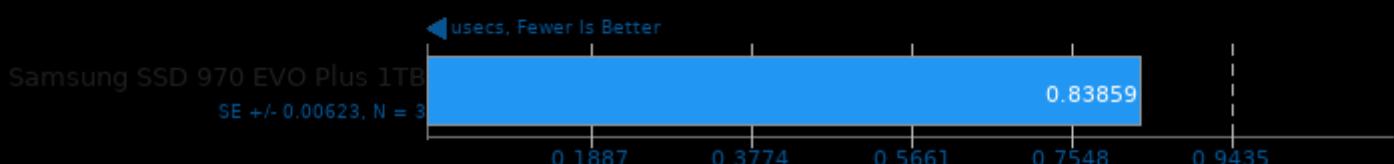
Test: Latency Under Load



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

HPC Challenge 1.5.0

Test / Class: Random Ring Latency



1. (CC) gcc options: -Iblas -lm -pthread -Impi -fomit-frame-pointer -O3 -march=native -funroll-loops

2. OpenBLAS + Open MPI 2.1.1

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