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arch-invictus-cpu

AMD FX-6300 Six-Core testing with a Gigabyte GA-78LMT-USB3 R2 (F1 BIOS) and Gigabyte AMD Radeon 3000 on Arch Linux via the Phoronix Test Suite.

Test Systems:

AMD FX-8320 Eight-Core

Processor: AMD FX-8320 Eight-Core @ 3.50GHz (8 Cores), Motherboard: ASRock 980DE3/U3S3, Chipset: AMD RS880 + SB7x0/SB8x0/SB9x0, Memory: 24576MB, Disk: 2 x 3001GB TOSHIBA HDWD130 + 250GB Samsung SSD 850, Graphics: NVIDIA GeForce 7100 GS 252MB, Audio: Realtek ALC662 rev1, Network: Realtek RTL8111/8168/8411

OS: Arch Linux, Kernel: 4.18.5-arch1-1-ARCH (x86_64), Compiler: GCC 8.2.0, File-System: ext4

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++ --enable-libmpx --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: acpi-cpufreq schedutil

Samsung SSD 850

Processor: AMD FX-6300 Six-Core @ 3.50GHz (3 Cores / 6 Threads), Motherboard: Gigabyte GA-78LMT-USB3 R2 (F1 BIOS), Chipset: AMD RS780 + SB7x0/SB8x0/SB9x0, Memory: 24GB, Disk: 250GB Samsung SSD 850 + 2 x 3001GB TOSHIBA HDWD130, Graphics: Gigabyte AMD Radeon 3000, Audio: Realtek ALC892, Network: Realtek RTL8111/8168/8411 + Realtek RTL-8100/8101L/8139

OS: Arch Linux, Kernel: 5.12.6-arch1-1 (x86_64), Compiler: GCC 11.1.0, File-System: ext4

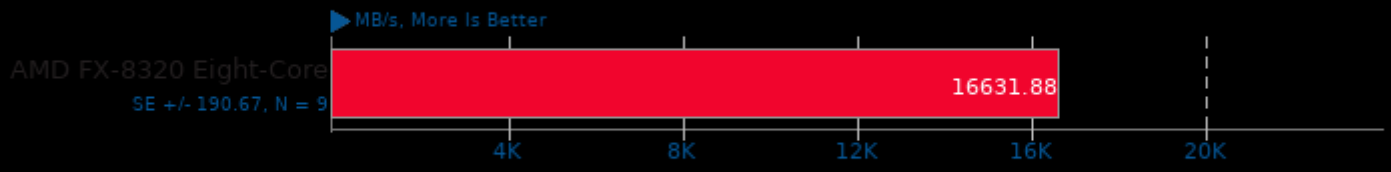
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Disk Notes: MQ-DEADLINE / data=ordered,relatime,rw / Block Size: 4096
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0x6000852
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	AMD FX-8320 Eight-Core	Samsung SSD 850
Stream - Copy (MB/s)	16632	
Standard Deviation	3.4%	
Stream - Scale (MB/s)	9293	
Standard Deviation	2.9%	
Stream - Triad (MB/s)	10691	
Standard Deviation	2.4%	
Stream - Add (MB/s)	11119	
Standard Deviation	3.7%	
Timed MAFFT Alignment - M.S.A (sec)	7.91	
Standard Deviation	8.8%	
Crafty - Elapsed Time (Nodes/s)	4145974	
Standard Deviation	0.9%	
TSCP - A.C.P (Nodes/s)	587449	
Standard Deviation	0.6%	
TTSIOD 3D Renderer - P.R.W.S.S.M (FPS)	110.47	
Standard Deviation	0.4%	
GraphicsMagick - HWB Color Space (Iterations/min)	138	
GraphicsMagick - L.A.T (Iterations/min)	70	
GraphicsMagick - Sharpen (Iterations/min)	88	
Standard Deviation	0.7%	
GraphicsMagick - Resizing (Iterations/min)	129	
Himeno Benchmark - P.P.S (MFLOPS)	629.72	
Standard Deviation	0.8%	
7-Zip Compression - C.S.T (MIPS)	18013	
Standard Deviation	0.4%	
C-Ray - Total Time - 4.1.R.P.P (sec)	329.08	
Standard Deviation	3.5%	
Parallel BZIP2 Compression - 2.F.C (sec)	14.94	
Standard Deviation	1.3%	
POV-Ray - Trace Time (sec)	220.04	
Standard Deviation	1.5%	

Smallpt - G.I.R.1.S (sec)	175.85	
Standard Deviation	0.3%	
FLAC Audio Encoding - WAV To FLAC (sec)	22.37	
Standard Deviation	9.9%	
LAME MP3 Encoding - WAV To MP3 (sec)	54.79	
Standard Deviation	0.2%	
FFmpeg - H.2.H.T.N.D (sec)	9.54	
Standard Deviation	0.7%	
OpenSSL - R.4.b.P (Signs/sec)	549.50	
Standard Deviation	1.5%	
Apache Benchmark - S.W.P.S (Reqs/sec)	13199	
Standard Deviation	0.3%	
Flexible IO Tester - Rand Write - Sync - Yes - No - 512KB (MB/s)		198
Standard Deviation		1%
Flexible IO Tester - Rand Write - Sync - Yes - No - 512KB (IOPS)		396
Standard Deviation		0.9%
Flexible IO Tester - Rand Write - IO_uring - Yes - No - 512KB (MB/s)		192
Standard Deviation		0.3%
Flexible IO Tester - Rand Write - IO_uring - Yes - No - 512KB (IOPS)		381
Standard Deviation		0.4%
Flexible IO Tester - Rand Write - Linux AIO - Yes - No - 512KB (MB/s)		197
Standard Deviation		0.6%
Flexible IO Tester - Rand Write - Linux AIO - Yes - No - 512KB (IOPS)		391
Standard Deviation		0.5%
Flexible IO Tester - Rand Write - POSIX AIO - Yes - No - 512KB (MB/s)		198
Standard Deviation		0.5%
Flexible IO Tester - Rand Write - POSIX AIO - Yes - No - 512KB (IOPS)		392
Standard Deviation		0.5%

Stream 2013-01-17

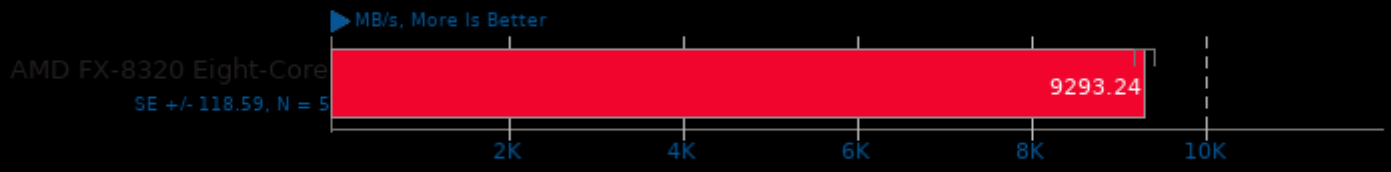
Type: Copy



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

Stream 2013-01-17

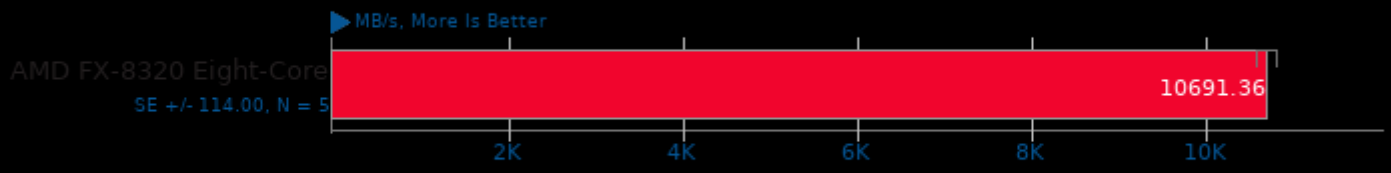
Type: Scale



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

Stream 2013-01-17

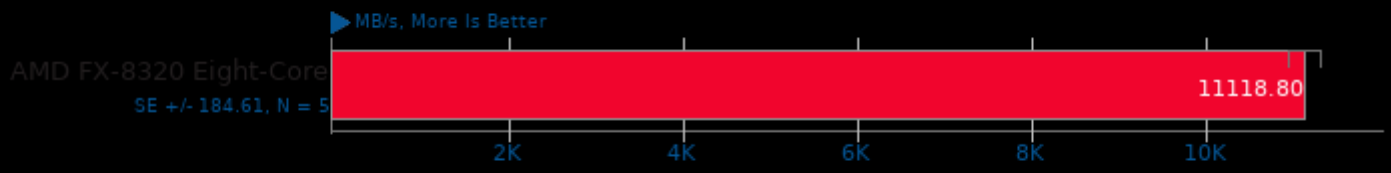
Type: Triad



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

Stream 2013-01-17

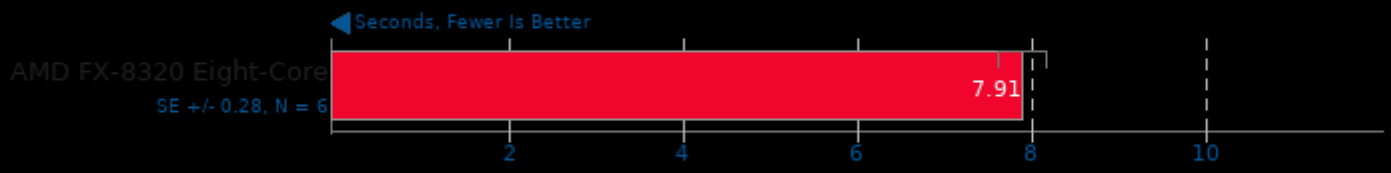
Type: Add



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

Timed MAFFT Alignment 7.392

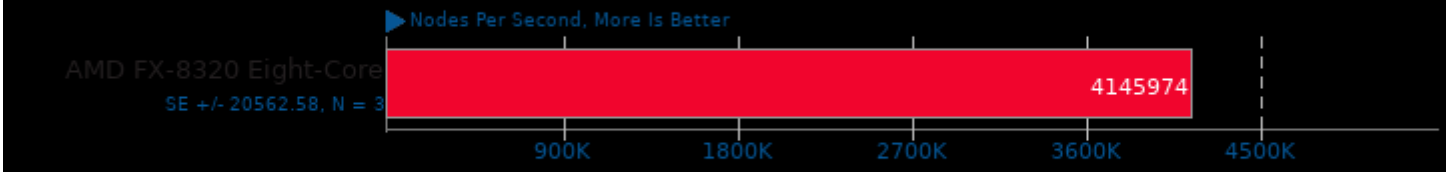
Multiple Sequence Alignment



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

Crafty 25.2

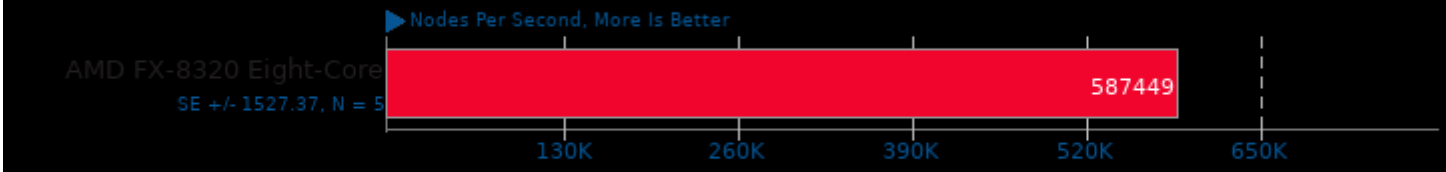
Elapsed Time



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

TSCP 1.81

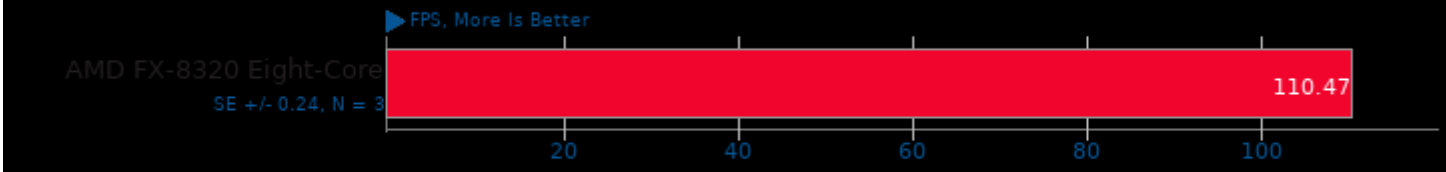
AI Chess Performance



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

TTSIOD 3D Renderer 2.3b

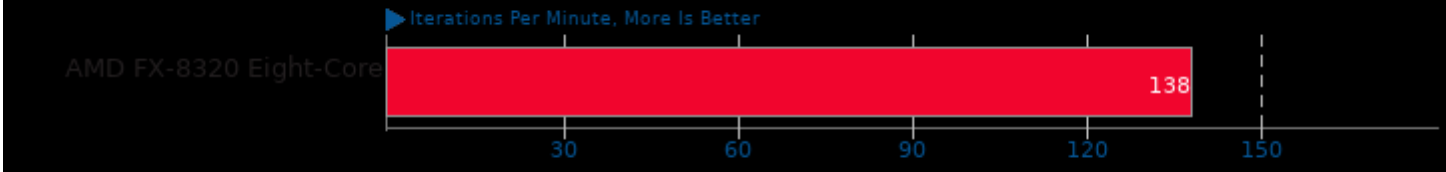
Phong Rendering With Soft-Shadow Mapping



1. (CXX) g++ options: -O3 -fomit-frame-pointer -ffast-math -mtune=native -flto -msse -mrecip -mfpmath=sse -msse2 -mssse3 -lSDL -lpthread -fopenmp

GraphicsMagick 1.3.30

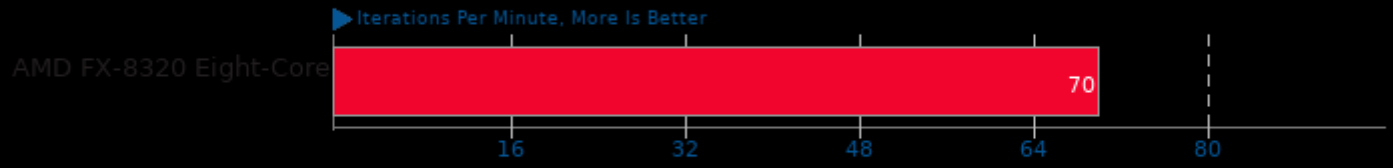
HWB Color Space



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

GraphicsMagick 1.3.30

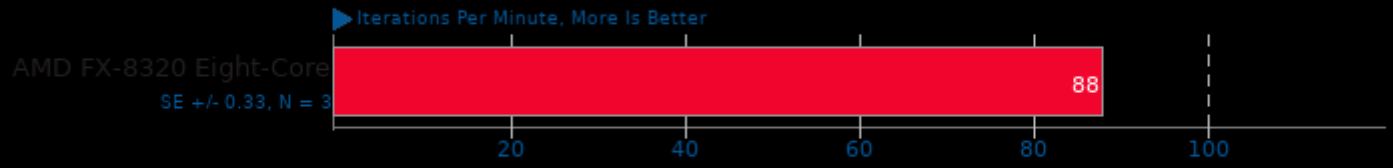
Local Adaptive Thresholding



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

GraphicsMagick 1.3.30

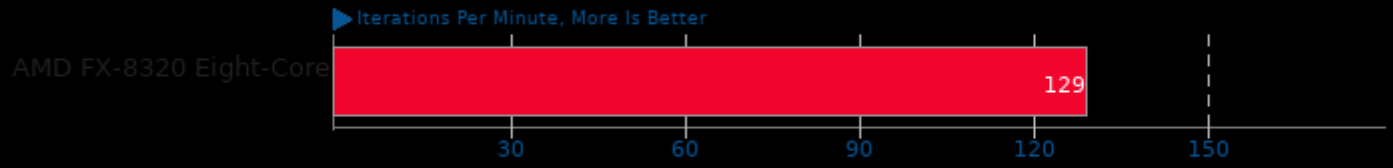
Sharpen



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

GraphicsMagick 1.3.30

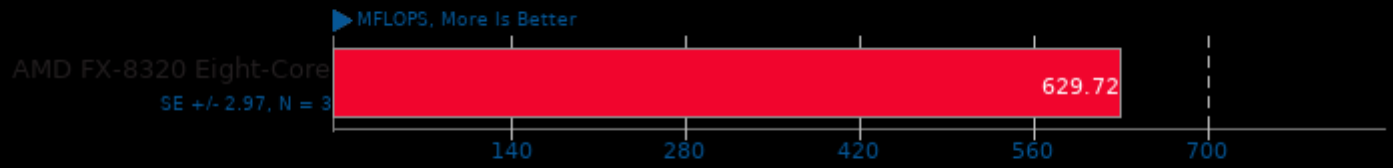
Resizing



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

Himeno Benchmark 3.0

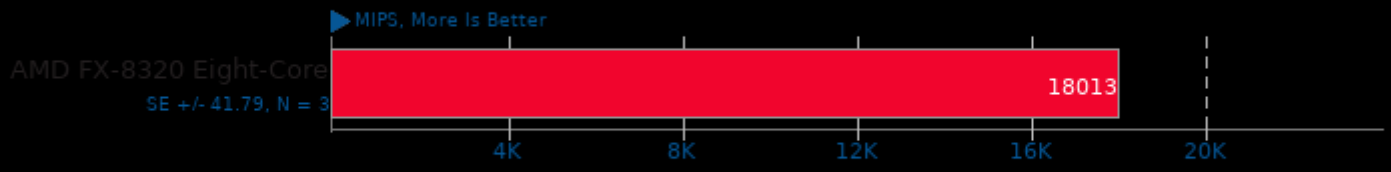
Poisson Pressure Solver



1. (CC) gcc options: -O3

7-Zip Compression 16.02

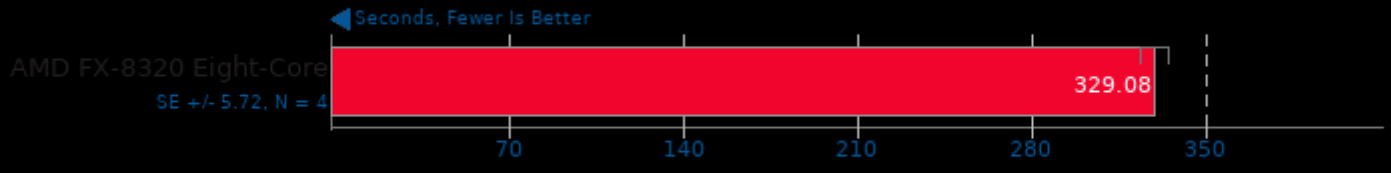
Compress Speed Test



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

C-Ray 1.1

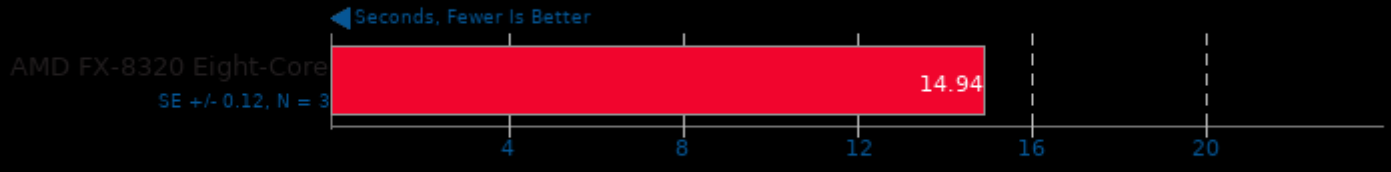
Total Time - 4K, 16 Rays Per Pixel



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

Parallel BZIP2 Compression 1.1.12

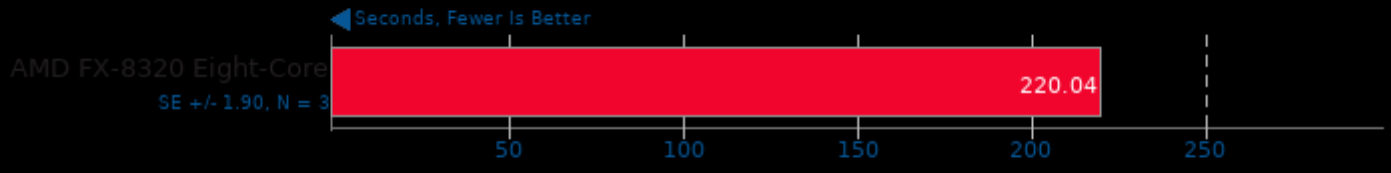
256MB File Compression



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

POV-Ray 3.7.0.7

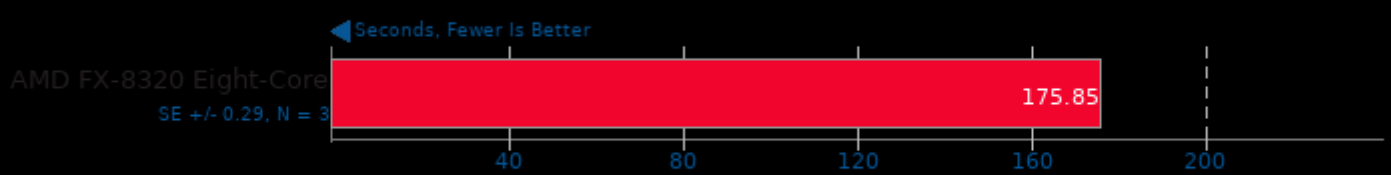
Trace Time



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

Smallpt 1.0

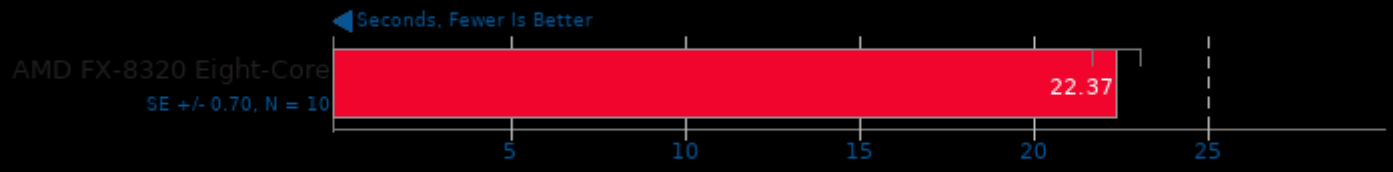
Global Illumination Renderer; 128 Samples



1. (CXX) g++ options: -fopenmp

FLAC Audio Encoding 1.3.2

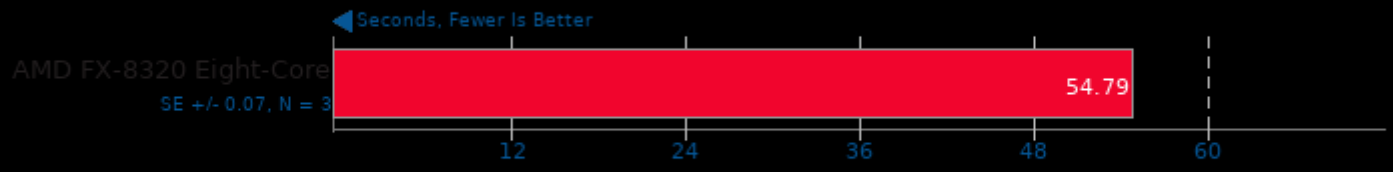
WAV To FLAC



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

LAME MP3 Encoding 3.100

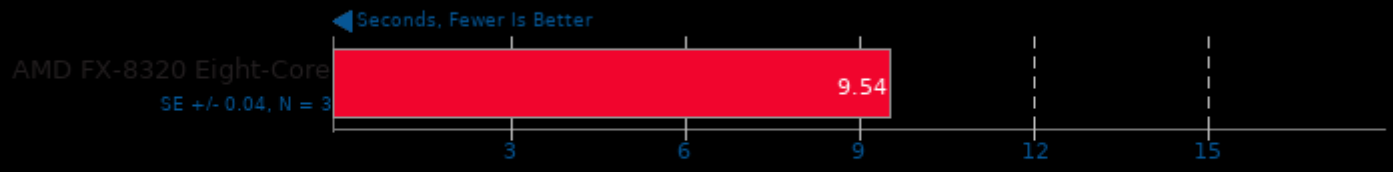
WAV To MP3



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

FFmpeg 4.0.2

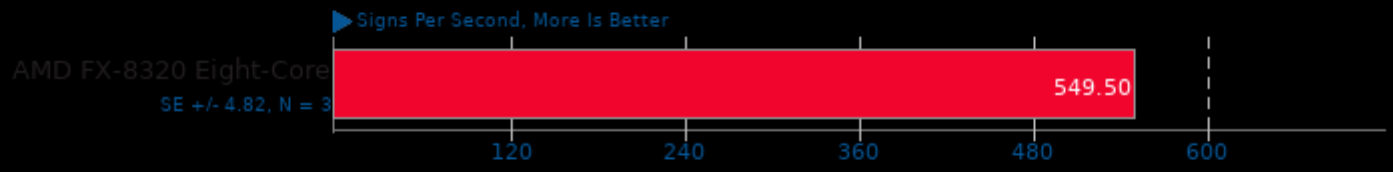
H.264 HD To NTSC DV



1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lm -lxcb -lxcb-shm -lxcb-shape -lxcb-xfixes -pthread -lbz2 -ll

OpenSSL 1.1.0f

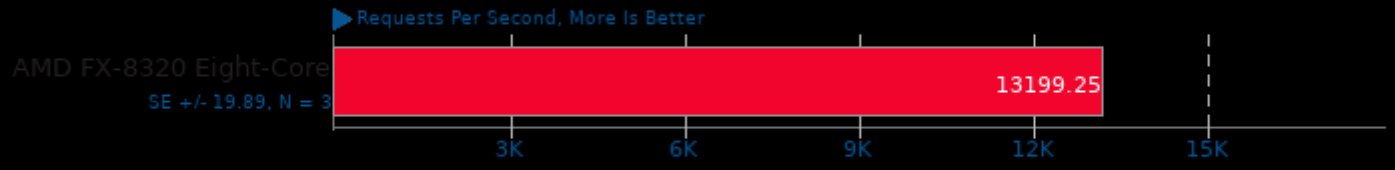
RSA 4096-bit Performance



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

Apache Benchmark 2.4.29

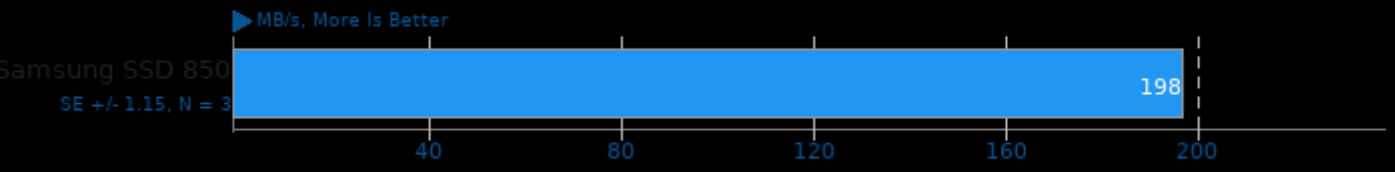
Static Web Page Serving



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

Flexible IO Tester 3.25

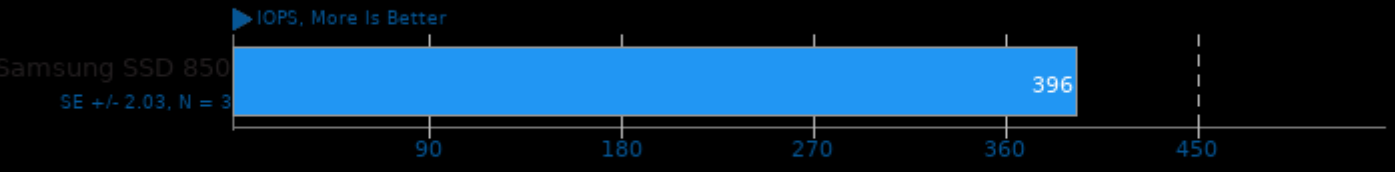
Type: Random Write - Engine: Sync - Buffered: Yes - Direct: No - Block Size: 512KB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -lnuma -lrt -lz -lpthread -lm -ldl -laio -lcurl -lssl -lcrypto -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE

Flexible IO Tester 3.25

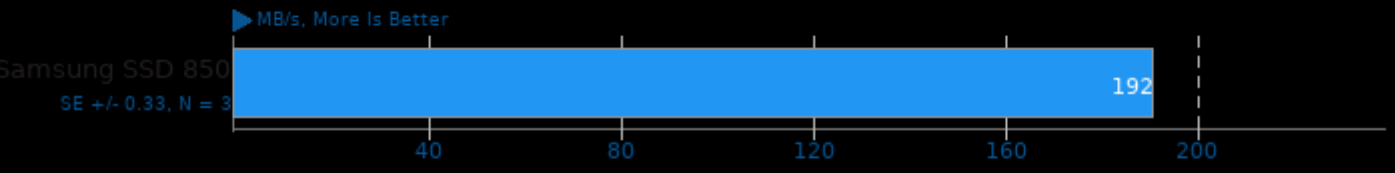
Type: Random Write - Engine: Sync - Buffered: Yes - Direct: No - Block Size: 512KB - Disk Target: Default Test Directory



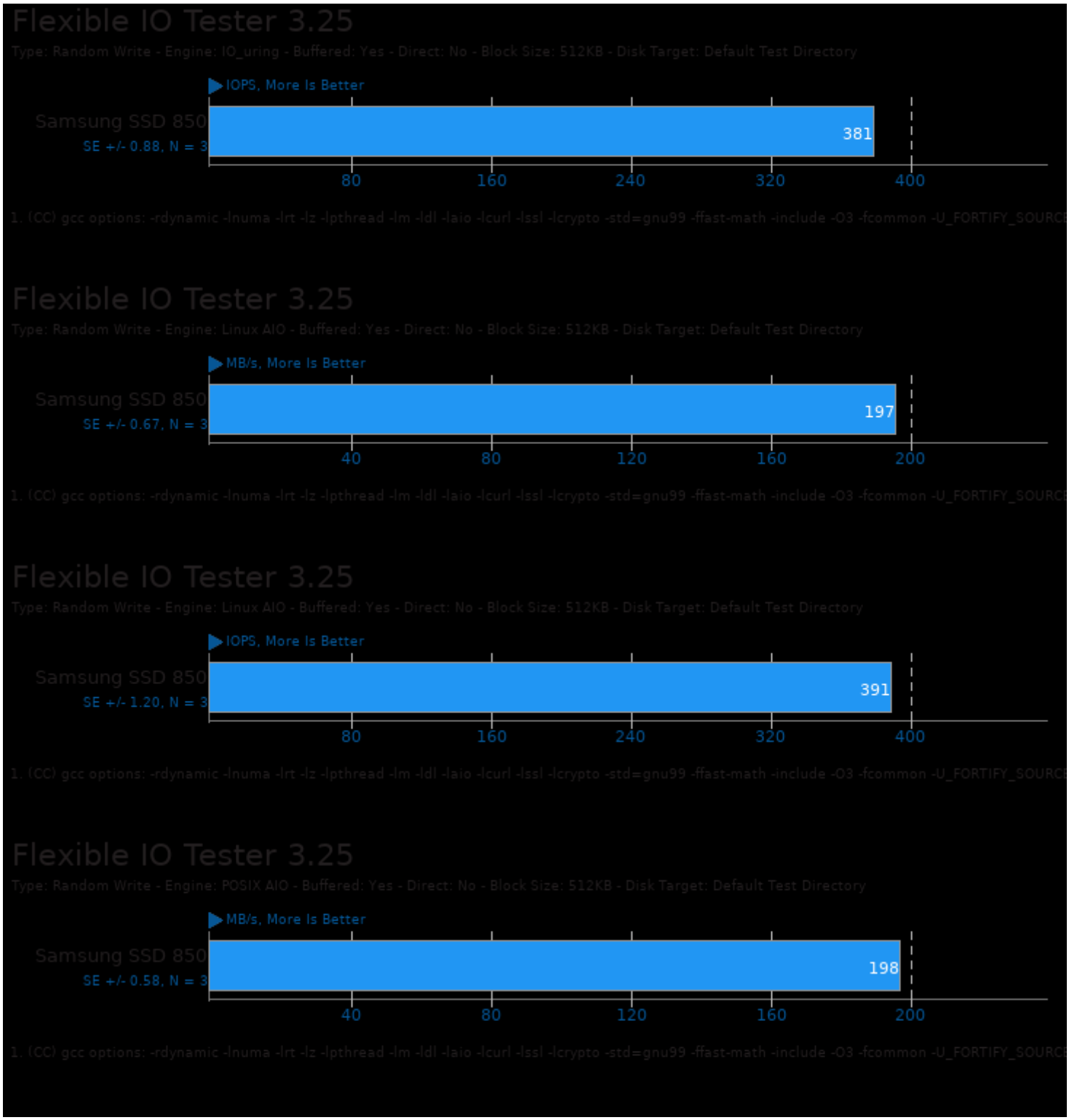
1. (CC) gcc options: -rdynamic -lnuma -lrt -lz -lpthread -lm -ldl -laio -lcurl -lssl -lcrypto -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE

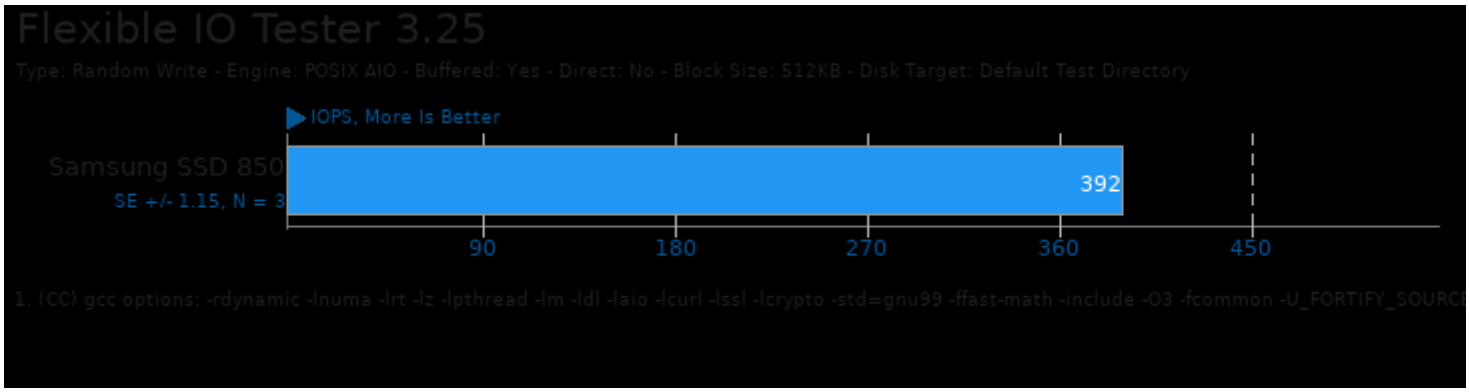
Flexible IO Tester 3.25

Type: Random Write - Engine: IO_uring - Buffered: Yes - Direct: No - Block Size: 512KB - Disk Target: Default Test Directory



1. (CC) gcc options: -rdynamic -lnuma -lrt -lz -lpthread -lm -ldl -laio -lcurl -lssl -lcrypto -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE


Flexible IO Tester 3.25
Type: Random Write - Engine: IO_uring - Buffered: Yes - Direct: No - Block Size: 512KB - Disk Target: Default Test Directory
IOPS, More Is Better
Samsung SSD 850
SE +/- 0.88, N = 3
381
80
160
240
320
400
1. (CC) gcc options: -rdynamic -lnuma -lrt -lz -lpthread -lm -ldl -laio -lcurl -lssl -lcrypto -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE
Flexible IO Tester 3.25
Type: Random Write - Engine: Linux AIO - Buffered: Yes - Direct: No - Block Size: 512KB - Disk Target: Default Test Directory
MB/s, More Is Better
Samsung SSD 850
SE +/- 0.67, N = 3
197
40
80
120
160
200
1. (CC) gcc options: -rdynamic -lnuma -lrt -lz -lpthread -lm -ldl -laio -lcurl -lssl -lcrypto -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE
Flexible IO Tester 3.25
Type: Random Write - Engine: Linux AIO - Buffered: Yes - Direct: No - Block Size: 512KB - Disk Target: Default Test Directory
IOPS, More Is Better
Samsung SSD 850
SE +/- 1.20, N = 3
391
80
160
240
320
400
1. (CC) gcc options: -rdynamic -lnuma -lrt -lz -lpthread -lm -ldl -laio -lcurl -lssl -lcrypto -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE
Flexible IO Tester 3.25
Type: Random Write - Engine: POSIX AIO - Buffered: Yes - Direct: No - Block Size: 512KB - Disk Target: Default Test Directory
MB/s, More Is Better
Samsung SSD 850
SE +/- 0.58, N = 3
198
40
80
120
160
200
1. (CC) gcc options: -rdynamic -lnuma -lrt -lz -lpthread -lm -ldl -laio -lcurl -lssl -lcrypto -std=gnu99 -ffast-math -include -O3 -fcommon -U_FORTIFY_SOURCE



This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 00:40.