Phoronix Test Suite

www.phoronix-test-suite.com

inaug Xeon Silver

Intel Xeon Silver 4216 testing with a TYAN S7100AG2NR (V4.02 BIOS) and ASPEED on Debian 10 via the Phoronix Test Suite.

Automated Executive Summary

3 had the most wins, coming in first place for 40% of the tests.

Based on the geometric mean of all complete results, the fastest (3) was 1.006x the speed of the slowest (1). 2 was 1x the speed of 3 and 1 was 0.994x the speed of 2.

Test Systems:

1

2

3

Processor: Intel Xeon Silver 4216 @ 3.20GHz (16 Cores / 32 Threads), Motherboard: TYAN S7100AG2NR (V4.02 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 24GB, Disk: 240GB Corsair Force MP500, Graphics: ASPEED, Audio: Realtek ALC892, Network: 2 x Intel I350

OS: Debian 10, Kernel: 4.19.0-9-amd64 (x86_64), Desktop: GNOME Shell 3.30.2, Display Server: X Server, Compiler: GCC 8.3.0, File-System: ext4, Screen Resolution: 1024x768

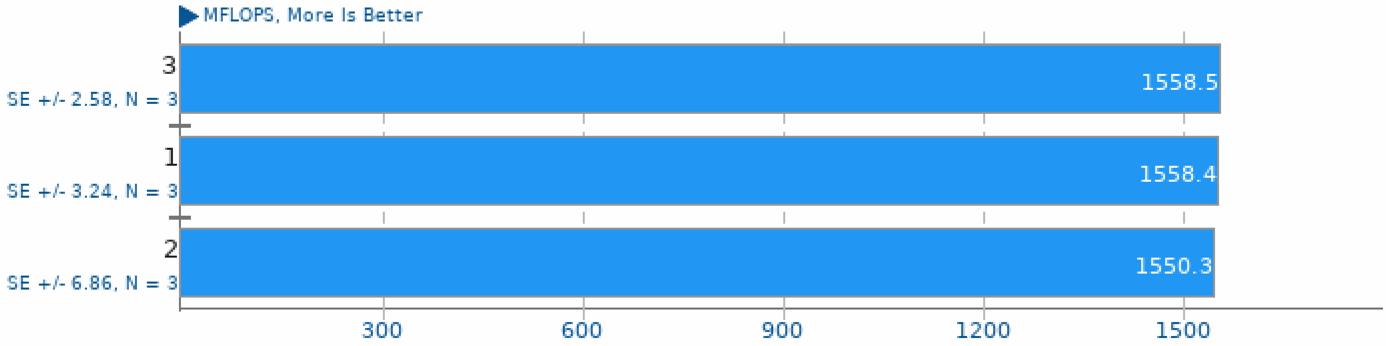
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0x500002c
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Mitigation of TSX disabled

	1	2	3
QuantLib (MFLOPS)	1558	1550	1559
Normalized	99.99%	99.47%	100%
Standard Deviation	0.4%	0.8%	0.3%
Cpuminer-Opt - Magi (kH/s)	301.41	302.27	302.40
Normalized	99.67%	99.96%	100%
Standard Deviation	0.2%	0.2%	0.3%
Cpuminer-Opt - x25x (kH/s)	321.81	322.50	322.18
Normalized	99.79%	100%	99.9%
Standard Deviation	0.3%	0.2%	0.2%
Cpuminer-Opt - Deepcoin (kH/s)	9908	9974	10127
Normalized	97.84%	98.49%	100%
Standard Deviation	0.8%	0.3%	2.8%
Cpuminer-Opt - Ringcoin (kH/s)	2085	2071	2067
Normalized	100%	99.33%	99.13%
Standard Deviation	0.8%	0.1%	0.1%
Cpuminer-Opt - Blake-2 S (kH/s)	390672	383429	393151
Normalized	99.37%	97.53%	100%
Standard Deviation	10.9%	16%	3.9%
Cpuminer-Opt - Garlicoin (kH/s)	4655	4675	4646
Normalized	99.58%	100%	99.39%
Standard Deviation	1.9%	0.4%	0.3%
Cpuminer-Opt - Skeincoin (kH/s)	51470	53707	52336
Normalized	95.83%	100%	97.45%
Standard Deviation	2.7%	2%	3.7%
Cpuminer-Opt - Myriad-Groestl (kH/s)	12487	12300	12565
Normalized	99.38%	97.89%	100%
Standard Deviation	1.6%	0.5%	2.9%
Cpuminer-Opt - LBC, LBRY Credits (kH/s)	65601	69257	68893
Normalized	94.72%	100%	99.47%
Standard Deviation	2.9%	0.9%	0.1%
Cpuminer-Opt - Q.S.2.P (kH/s)	67500	61917	64128
Normalized	100%	91.73%	95%
Standard Deviation	2.5%	2.6%	9.6%

inaug Xeon Silver

Cpuminer-Opt - T.S.2.O (kH/s)	**84553**	**92666**	87388
Normalized	91.24%	100%	94.3%
Standard Deviation	13.6%	2.9%	11%
FinanceBench - Repo OpenMP (ms)	**83172**	83272	**83336**
Normalized	100%	99.88%	99.8%
Standard Deviation	0%	0.3%	0.1%
FinanceBench - Bonds OpenMP (ms)	**153635**	152062	**151981**
Normalized	98.92%	99.95%	100%
Standard Deviation	1.9%	0.1%	0%
FinanceBench - Monte-Carlo OpenMP (ms)	**71767**	**71603**	
Normalized	99.77%	100%	
Standard Deviation	2.9%	1%	

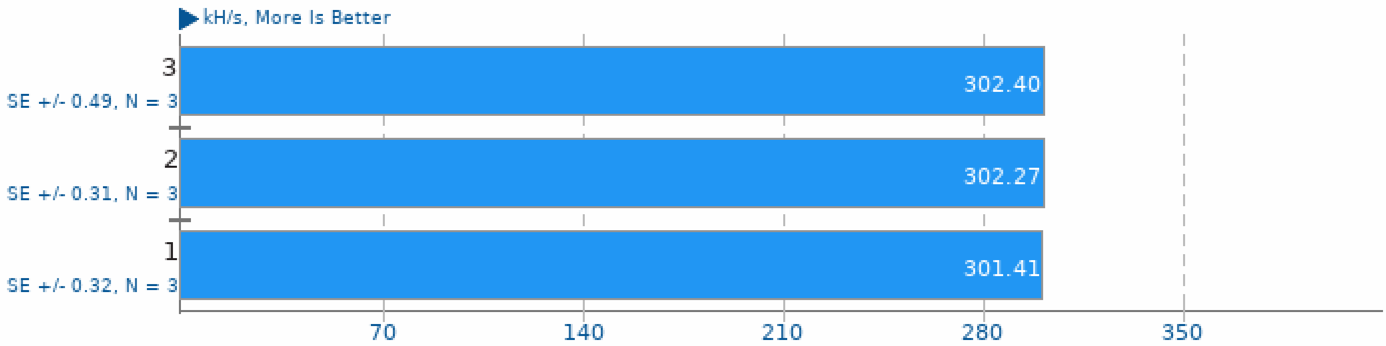
QuantLib 1.21



1. (CXX) g++ options: -O3 -march=native -rdynamic -lboost_timer -lboost_system -lboost_chrono

Cpuminer-Opt 3.15.5

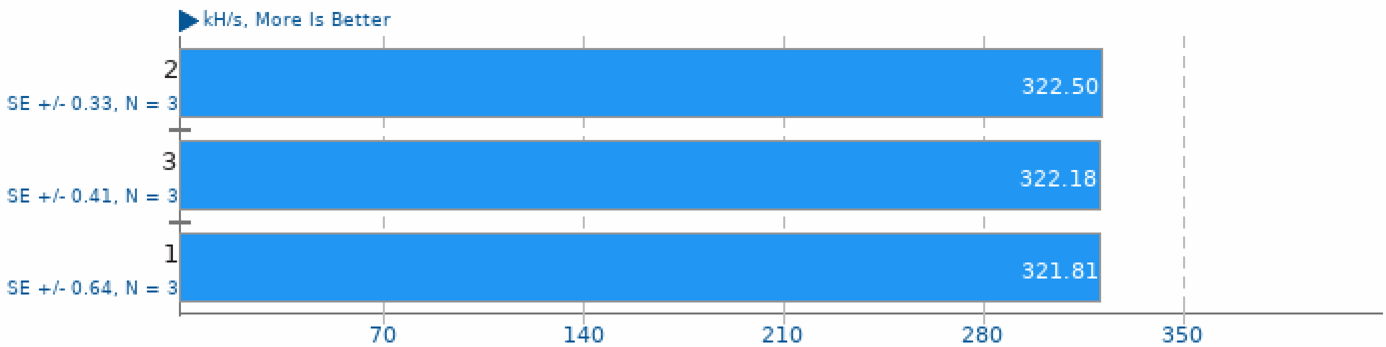
Algorithm: Magi



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

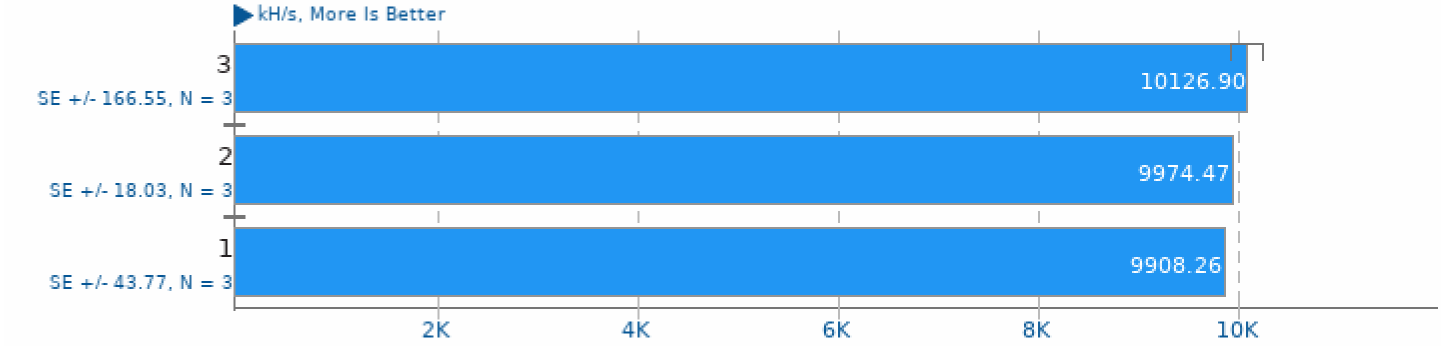
Cpuminer-Opt 3.15.5

Algorithm: x25x



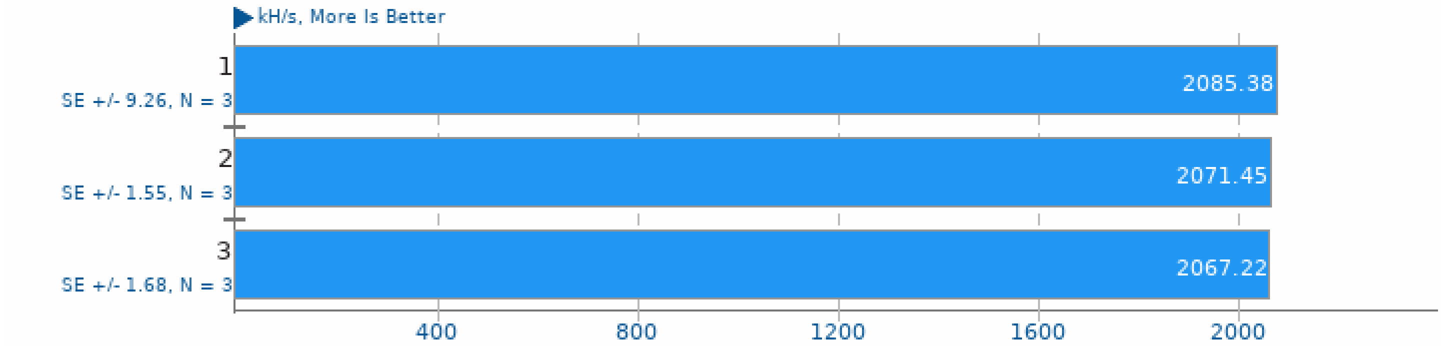
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.15.5
Algorithm: Deepcoin



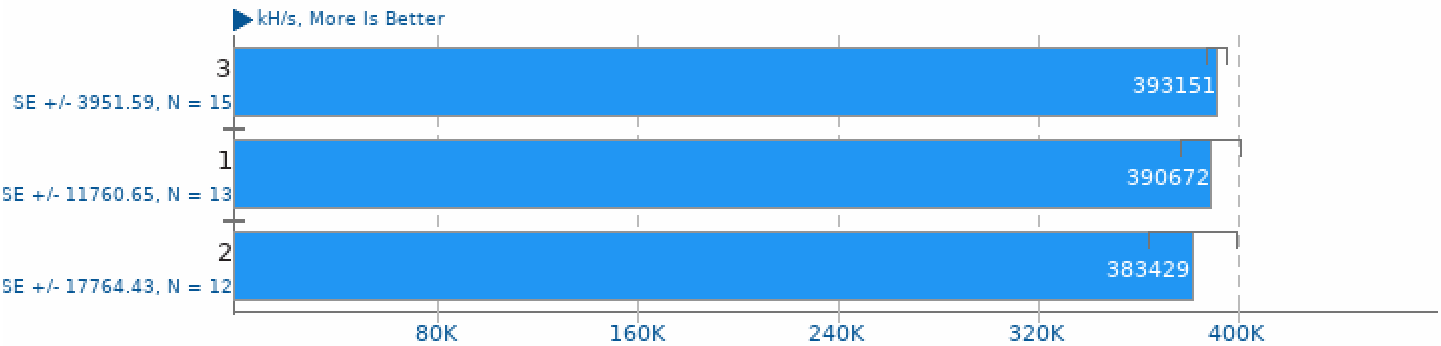
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.15.5
Algorithm: Ringcoin



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

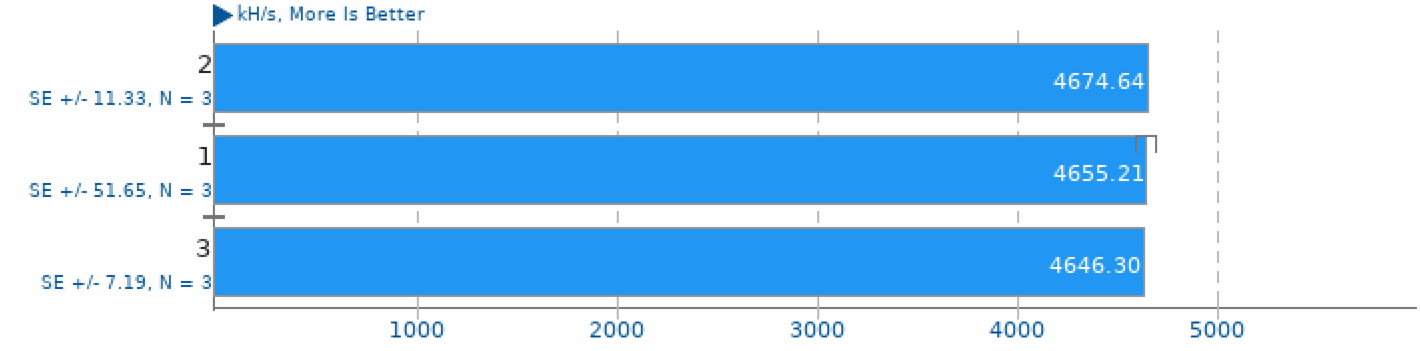
Cpuminer-Opt 3.15.5
Algorithm: Blake-2 S



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.15.5

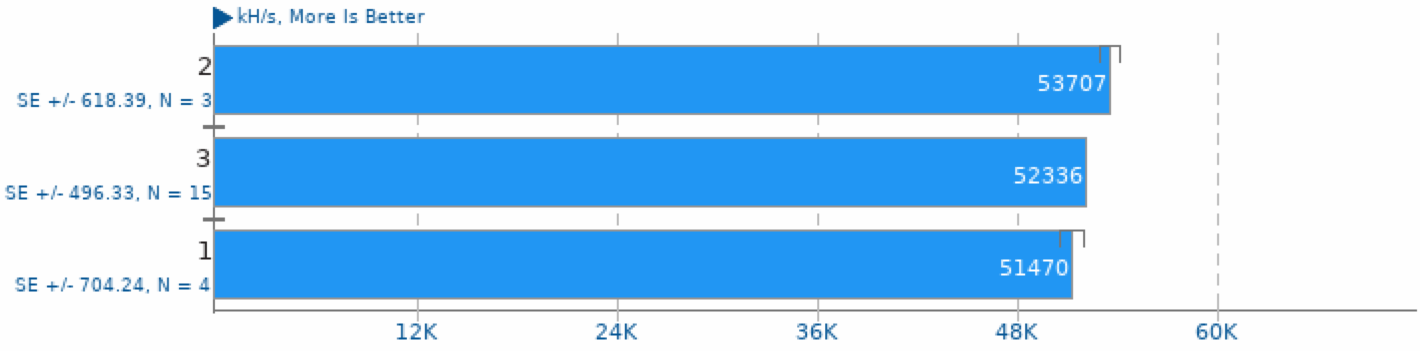
Algorithm: Garlicoin



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.15.5

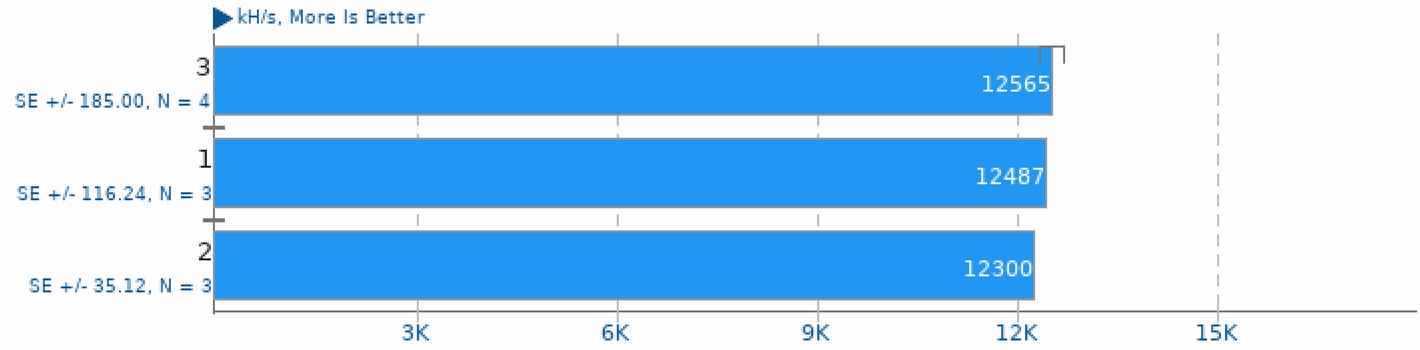
Algorithm: Skeincoin



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

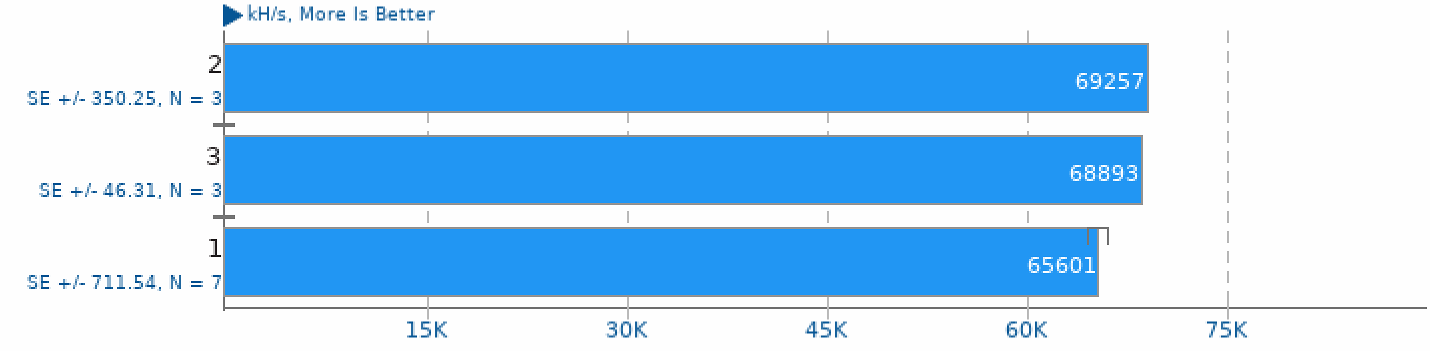
Cpuminer-Opt 3.15.5

Algorithm: Myriad-Groestl



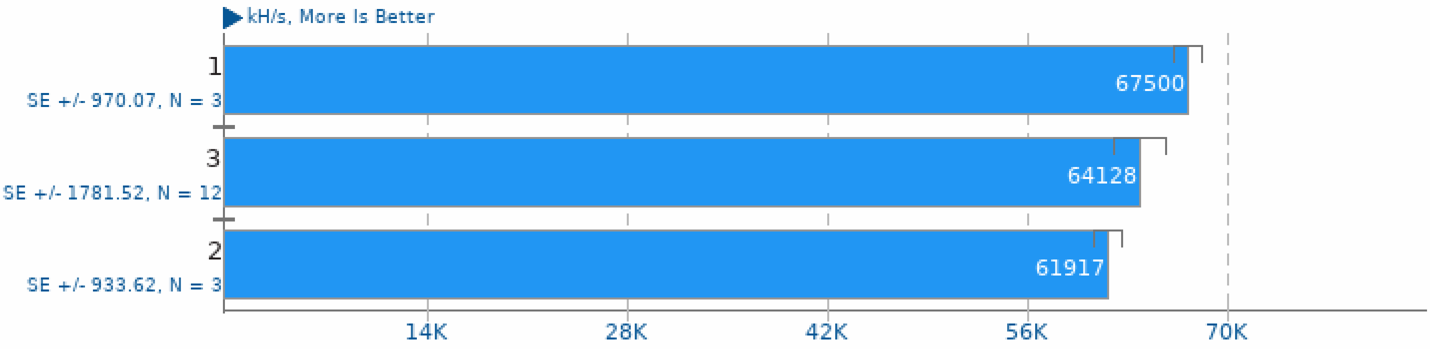
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.15.5
Algorithm: LBC, LBRY Credits



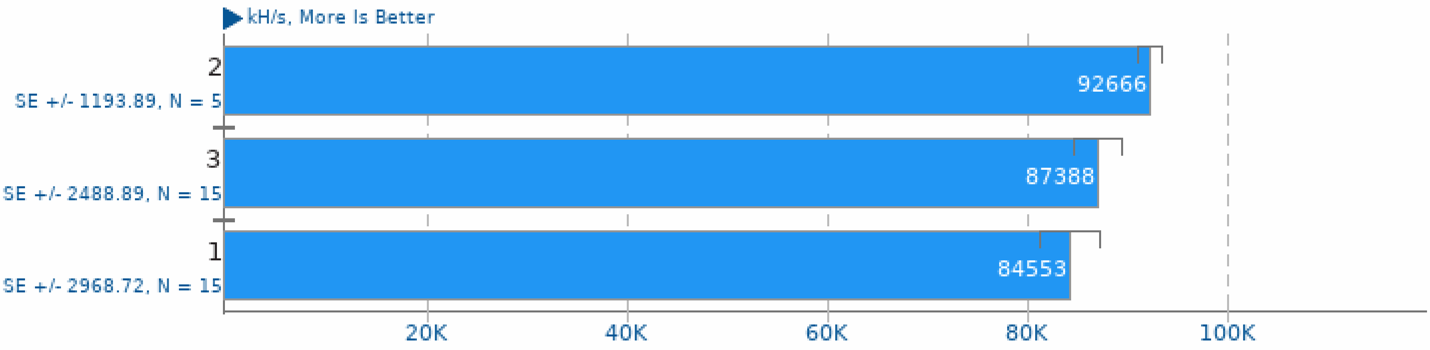
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.15.5
Algorithm: Quad SHA-256, Pyrite



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

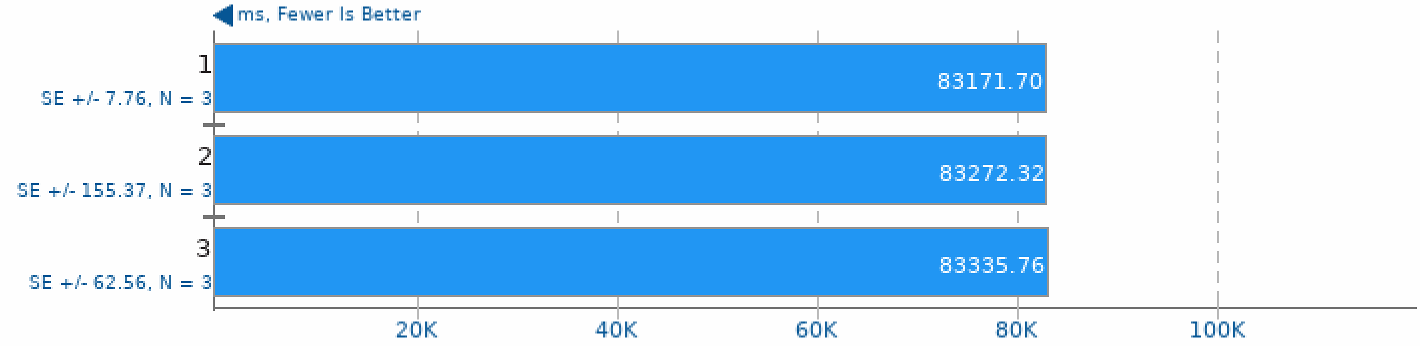
Cpuminer-Opt 3.15.5
Algorithm: Triple SHA-256, Onecoin



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

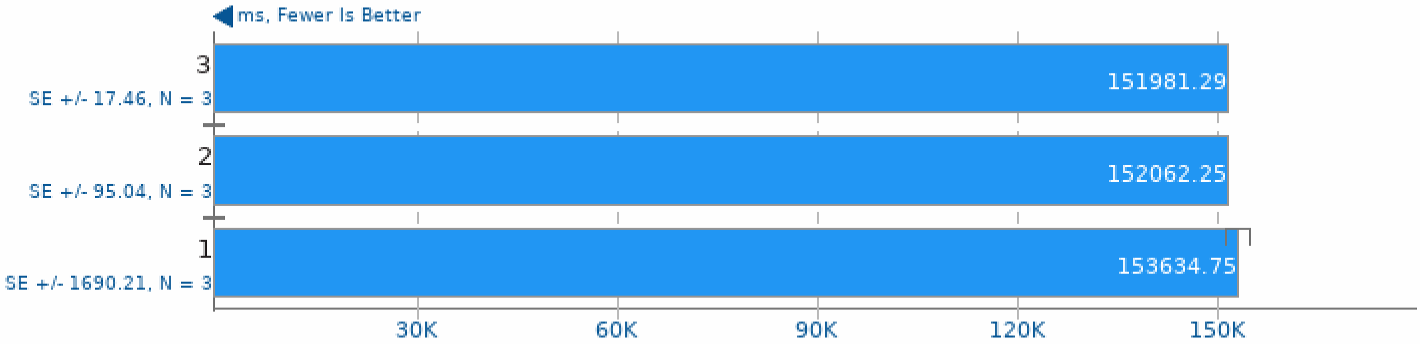
inaug Xeon Silver

FinanceBench 2016-07-25
Benchmark: Repo OpenMP



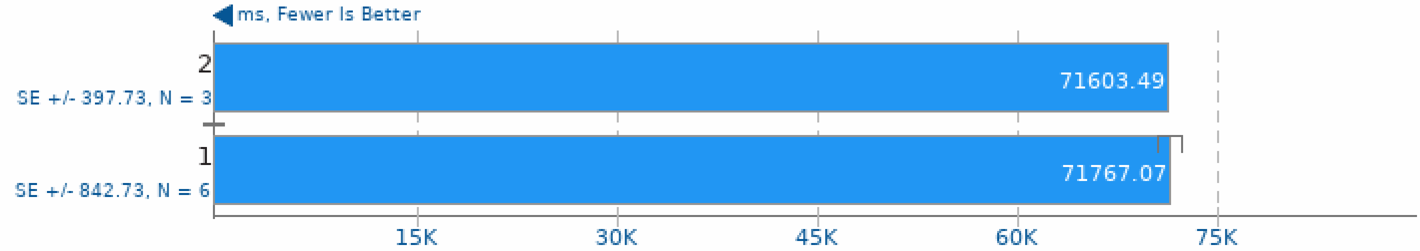
1. (CXX) g++ options: -O3 -march=native -fopenmp

FinanceBench 2016-07-25
Benchmark: Bonds OpenMP



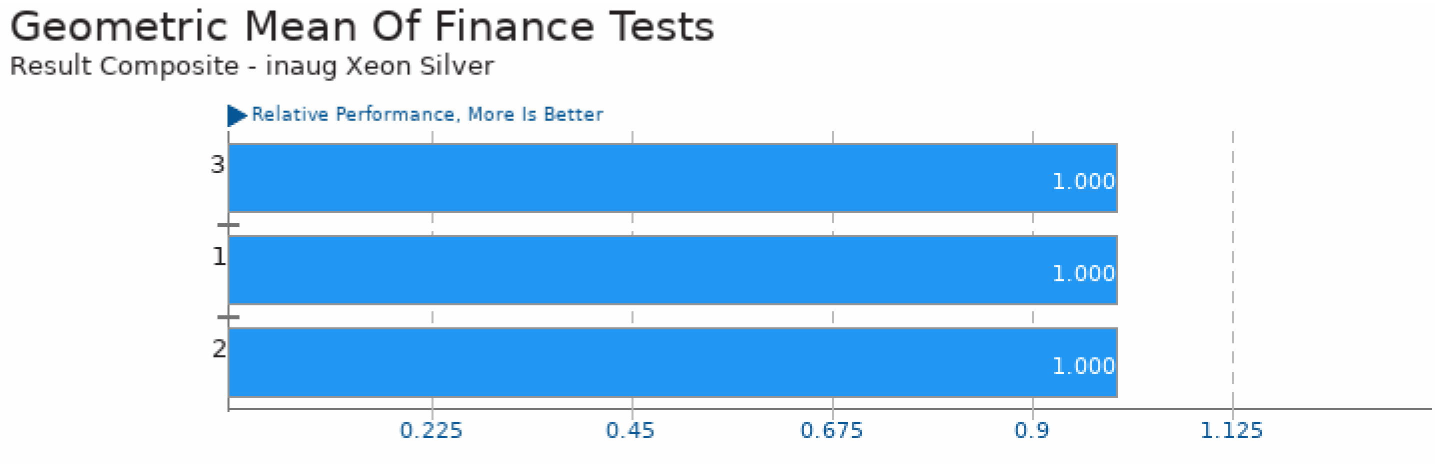
1. (CXX) g++ options: -O3 -march=native -fopenmp

FinanceBench 2016-07-25
Benchmark: Monte-Carlo OpenMP



1. (CXX) g++ options: -O3 -march=native -fopenmp

These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/financebench and pts/quantlib

This file was automatically generated via the Phoronix Test Suite benchmarking software on Monday, 10 May 2021 15:46.