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Third

Automated Executive Summary

2 x Intel Xeon E5462 had the most wins, coming in first place for 55% of the tests.

Based on the geometric mean of all complete results, the fastest (2 x Intel Xeon E5462) was 1.612x the speed of the slowest (test).

The results with the greatest spread from best to worst included:

C-Ray (Total Time) at 4.406x
NAS Parallel Benchmarks (Test / Class: EP.B) at 4.09x
Smallpt (Global Illumination Renderer; 100 Samples) at 2.125x
NAS Parallel Benchmarks (Test / Class: UA.A) at 1.75x
John The Ripper (Test: Blowfish) at 1.733x
Himeno Benchmark (Poisson Pressure Solver) at 1.674x
7-Zip Compression (Compress Speed Test) at 1.399x
NAS Parallel Benchmarks (Test / Class: IS.C) at 1.291x
Timed PHP Compilation (Time To Compile) at 1.276x
Crafty (Elapsed Time) at 1.09x.

Test Systems:

test

Processor: AMD Phenom II X4 945 @ 3.00GHz (4 Cores), Motherboard: Gigabyte GA-MA78GM-S2H, Memory: 6144MB, Disk: 160GB Seagate ST3160215AS, Graphics: Gallium 0.4 on AMD RS780 512MB, Audio: Realtek ALC889A, Monitor: PLE2607WS

OS: Calculate Linux Desktop 11.15 GNOME, Kernel: 3.3.3-calculate (x86_64), Desktop: GNOME Shell 3.2.2.1, Display Server: X Server 1.11.2, OpenGL: 2.1 Mesa 7.11.2 Gallium 0.4, Compiler: GCC 4.5.3 + LLVM 2.9, File-System: ext4, Screen Resolution: 1920x1200

2 x Intel Xeon E5462

Processor: 2 x Intel Xeon E5462 @ 2.80GHz (8 Cores), Motherboard: DELL CS23-SH (S5400.86B.06.00.0028.081320082126 BIOS), Chipset: Intel 5400 MCH, Memory: 4 x 4096 MB DDR2-667MT/s HYMP151F72CP4N3-Y5, Disk: 4001GB Seagate ST4000DM004-2CV1 + 2 x 1000GB Hitachi HDS72101, Graphics: llvmpipe, Audio: NVIDIA GK208 HDMI/DP, Network: 2 x Intel 80003ES2LAN

OS: Linuxmint 20.3, Kernel: 5.4.0-47-generic (x86_64), Desktop: Xfce 4.16, Display Server: X Server 1.20.13, OpenGL: 4.5 Mesa 21.2.6 (LLVM 12.0.0 128 bits), Vulkan: 1.1.182, Compiler: GCC 6.4.0 20180424, File-System: ext4, Screen Resolution: 1920x1080

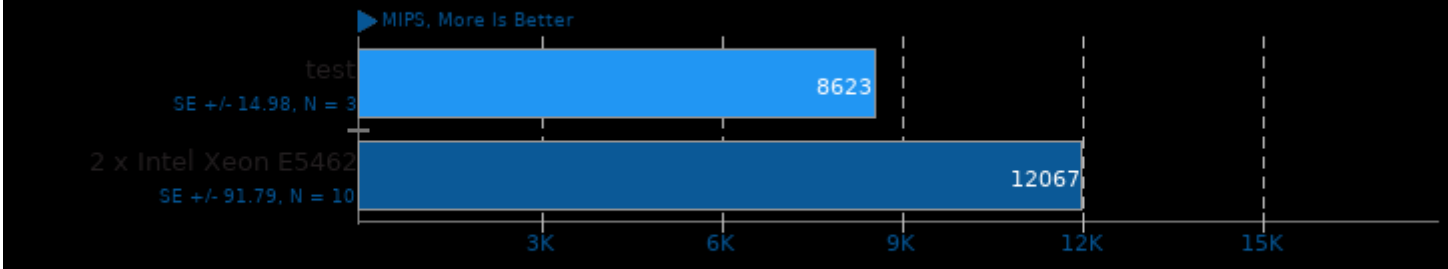
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-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-as=/usr/bin/x86_64-linux-gnu-as --with-default-libstdcxx-abi=new --with-ld=/usr/bin/x86_64-linux-gnu-ld --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0xa0b
Security Notes: itlb_multihit: KVM: Vulnerable + l1tf: Mitigation of PTE Inversion + mds: Vulnerable: Clear buffers attempted no microcode; SMT disabled + meltdown: Mitigation of PTI + spec_store_bypass: Vulnerable + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	test	2 x Intel Xeon E5462
7-Zip Compression - C.S.T (MIPS)	8623	12067
Normalized	71.46%	100%
Standard Deviation	0.3%	2.4%
Parallel BZIP2 Compression - 2.F.C (sec)	17.14	
Standard Deviation	0.2%	
x264 - H.2.V.E (FPS)	63.26	
Standard Deviation	0.3%	
OpenSSL - R.4.b.P (Signs/sec)	56.65	
Standard Deviation	0.2%	
Gcrypt Library - C.E.C (us)	3200	
Standard Deviation	0.3%	
John The Ripper - Blowfish (Real C/S)	3399	5890
Normalized	57.71%	100%
Standard Deviation	0.1%	0.5%

GraphicsMagick - L.A.T (Iterations/min)	43	
Standard Deviation	0%	
GraphicsMagick - Resizing (Iterations/min)	99	
Standard Deviation	0.6%	
Himeno Benchmark - P.P.S (MFLOPS)	**508.79**	**851.936211**
Normalized	59.72%	100%
Standard Deviation	0.4%	0.9%
C-Ray - Total Time (sec)	**93.79**	**21.286**
Normalized	22.7%	100%
Standard Deviation	0%	0.5%
Smallpt - G.I.R.1.S (sec)	**204**	**96**
Normalized	47.06%	100%
Standard Deviation	0%	
Crafty - Elapsed Time (sec)	**113.59**	**123.78**
Normalized	100%	91.77%
Standard Deviation	0.4%	0.2%
Timed HMMer Search - P.D.S (sec)	**25.11**	**26.986**
Normalized	100%	93.05%
Standard Deviation	1%	1%
Timed MAFFT Alignment - M.S.A (sec)	**13.07**	**9.322**
Normalized	71.32%	100%
Standard Deviation	0%	8.8%
Minion - Quasigroup (sec)	233.02	
Standard Deviation	1.3%	
Minion - Solitaire (sec)	389.58	
Standard Deviation	35.3%	
NAS Parallel Benchmarks - EP.B (Mop/s)	**87.64**	**358.46**
Normalized	24.45%	100%
Standard Deviation	0.8%	1.7%
NAS Parallel Benchmarks - IS.C (Mop/s)	**68.99**	**53.42**
Normalized	100%	77.43%
Standard Deviation	3.5%	0.8%
NAS Parallel Benchmarks - LU.A (Mop/s)	**4446**	**6862**
Normalized	64.79%	100%
Standard Deviation	0.6%	9.7%
NAS Parallel Benchmarks - UA.A (Mop/s)	**18.38**	**32.16**
Normalized	57.15%	100%
Standard Deviation	1.1%	4.6%
Timed PHP Compilation - Time To Compile (sec)	**54.52**	**42.715**
Normalized	78.35%	100%
Standard Deviation	1.4%	0.1%

7-Zip Compression 9.20.1

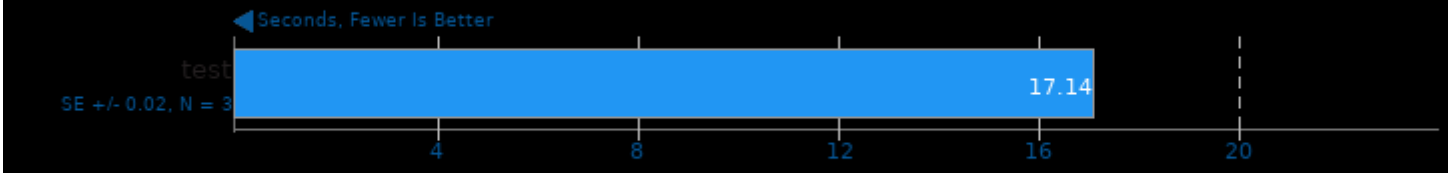
Compress Speed Test



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

Parallel BZIP2 Compression 1.0.5

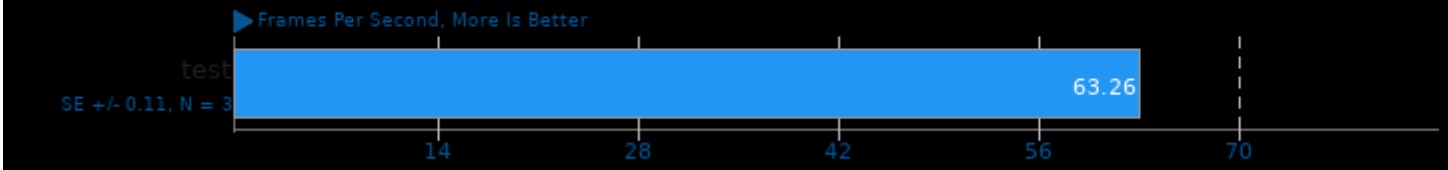
256MB File Compression



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

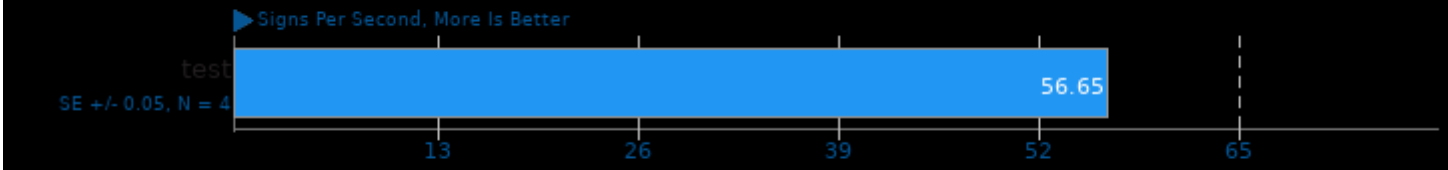
x264 2011-12-06

H.264 Video Encoding



OpenSSL 1.0.0e

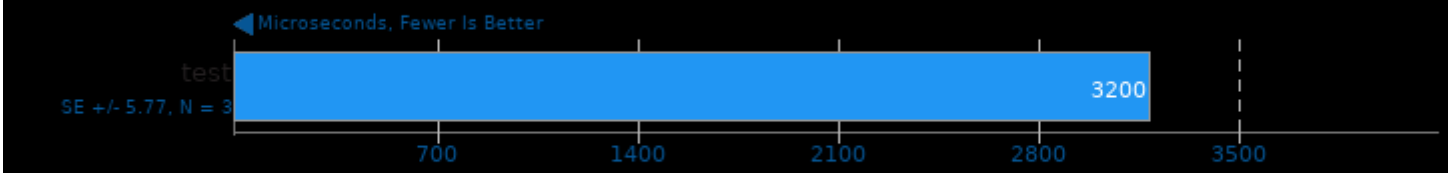
RSA 4096-bit Performance



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

Gcrypt Library 1.4.4

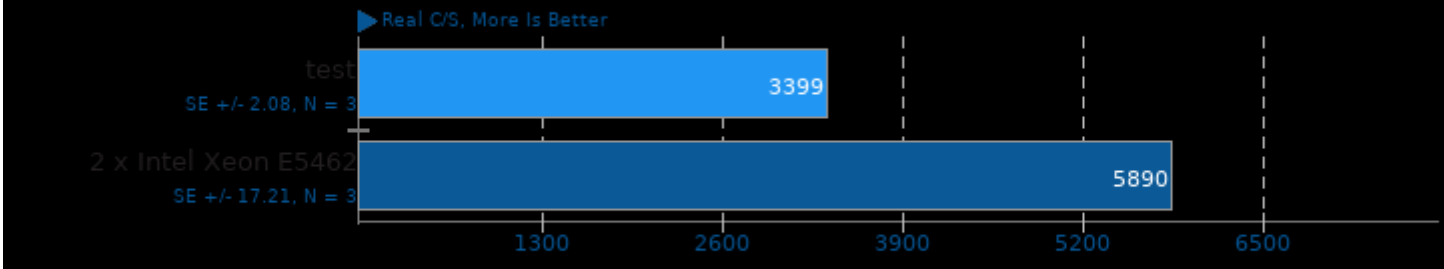
CAMELLIA256-ECB Cipher



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

John The Ripper 1.7.9

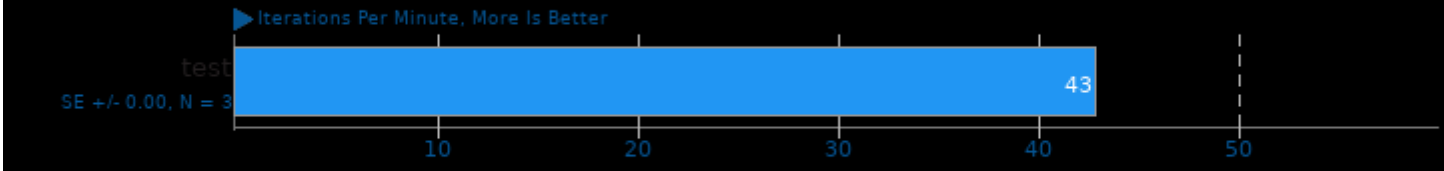
Test: Blowfish



1. (CC) gcc options: -fopenmp -lcrypt

GraphicsMagick 1.3.12

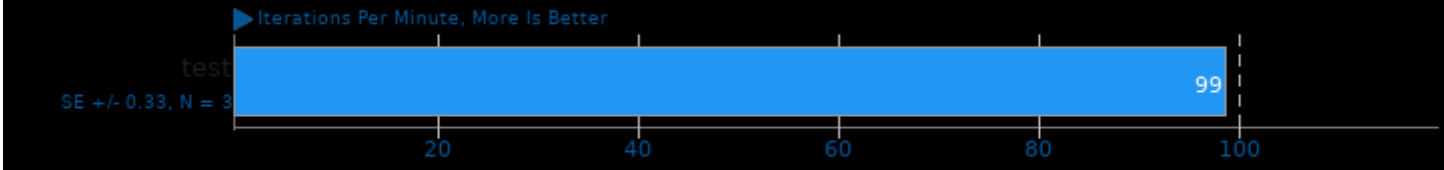
Operation: Local Adaptive Thresholding



1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -llcms -ltiff -lfreetype -ljasper -ljpeg -lwmflite -lXext -lSM -lICE -lX11 -lbz2 -lxml2 -lz -lm -lrt -lpthre

GraphicsMagick 1.3.12

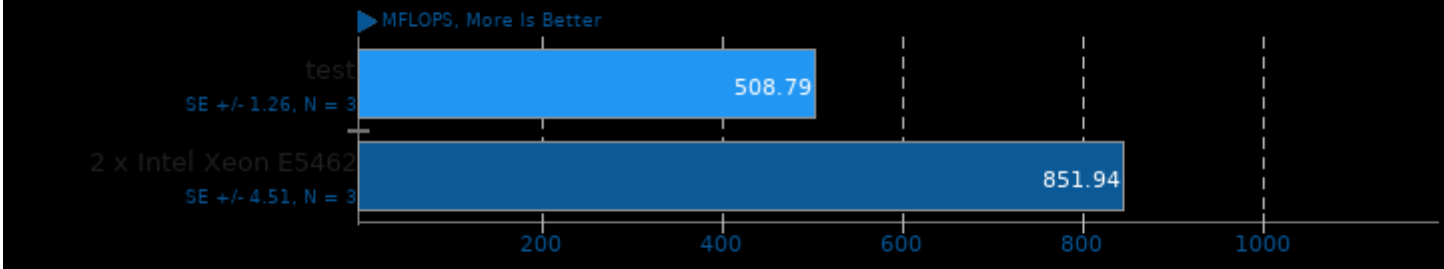
Operation: Resizing



1. (CC) gcc options: -std=gnu99 -fopenmp -O2 -pthread -llcms -ltiff -lfreetype -ljasper -ljpeg -lwmflite -lXext -lSM -lICE -lX11 -lbz2 -lxml2 -lz -lm -lrt -lpthre

Himeno Benchmark 3.0

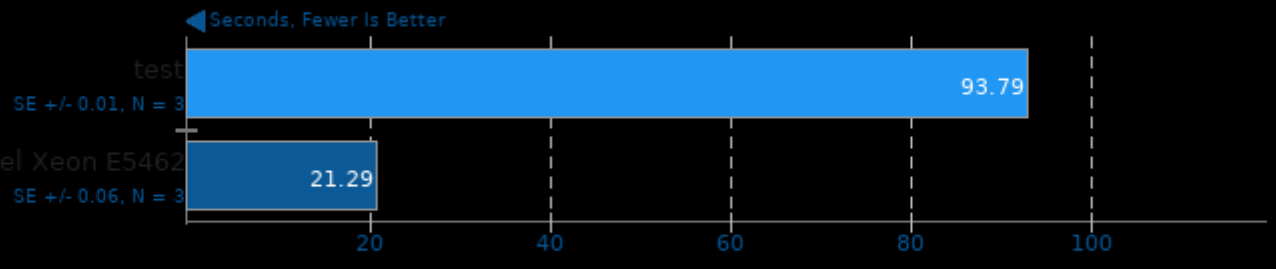
Poisson Pressure Solver



1. (CC) gcc options: -O3

C-Ray 1.1

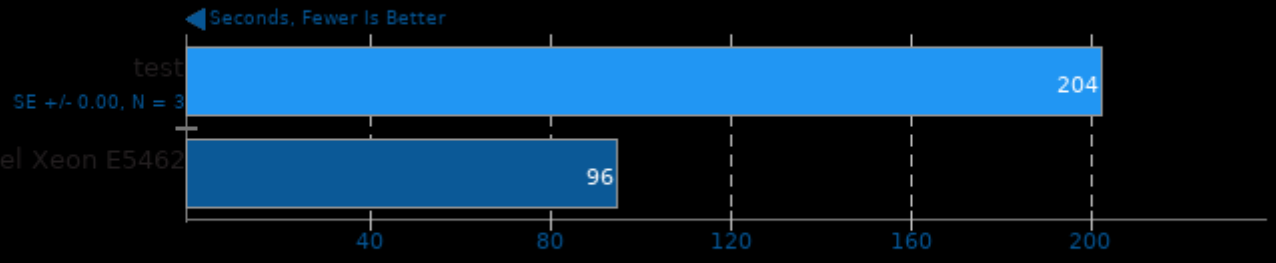
Total Time



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

Smallpt 1.0

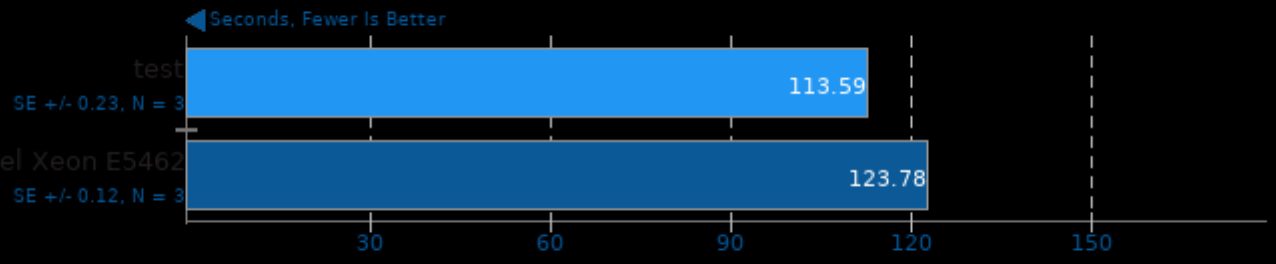
Global Illumination Renderer; 100 Samples



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

Crafty 23.4

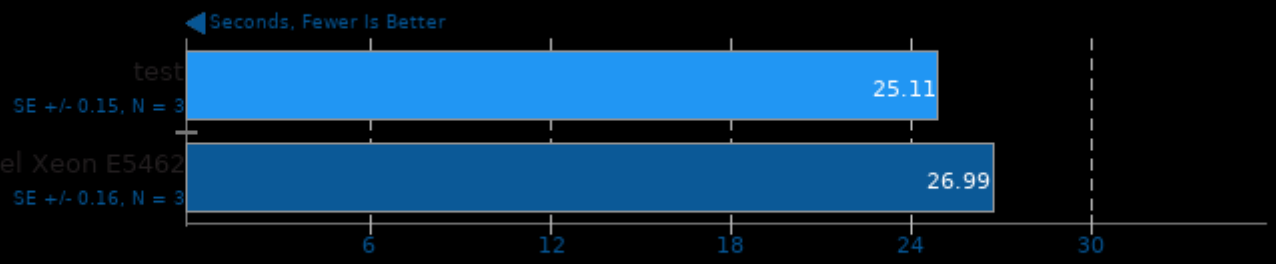
Elapsed Time



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

Timed HMMer Search 2.3.2

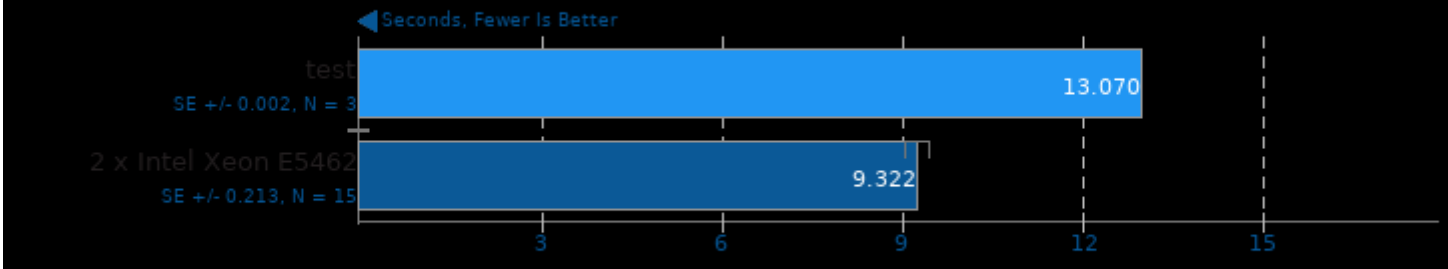
Pfam Database Search



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

Timed MAFFT Alignment 6.864

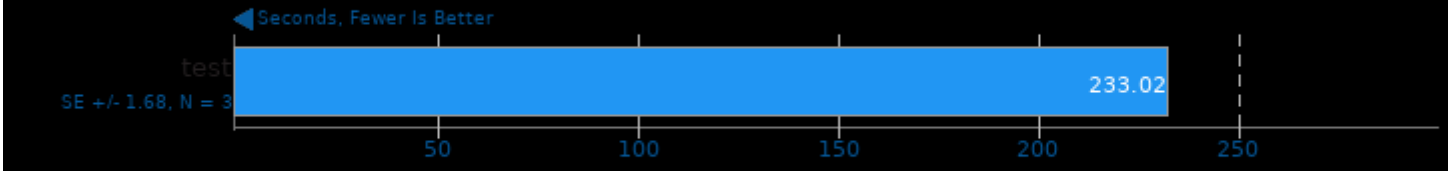
Multiple Sequence Alignment



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

Minion 0.12

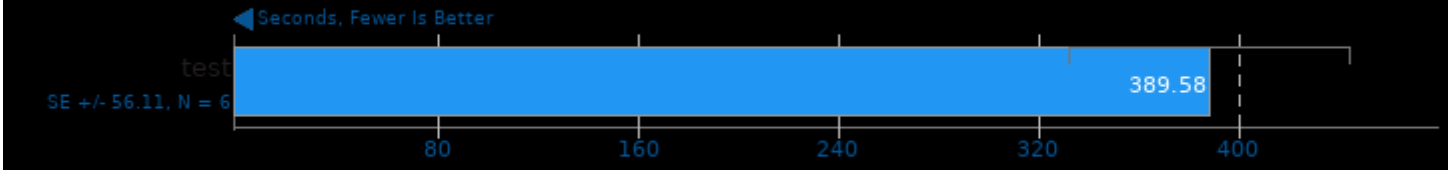
Benchmark: Quasigroup



1. (CXX) g++ options: -O3 -fomit-frame-pointer -rdynamic -lboost_iostreams-mt -lz -lbz2

Minion 0.12

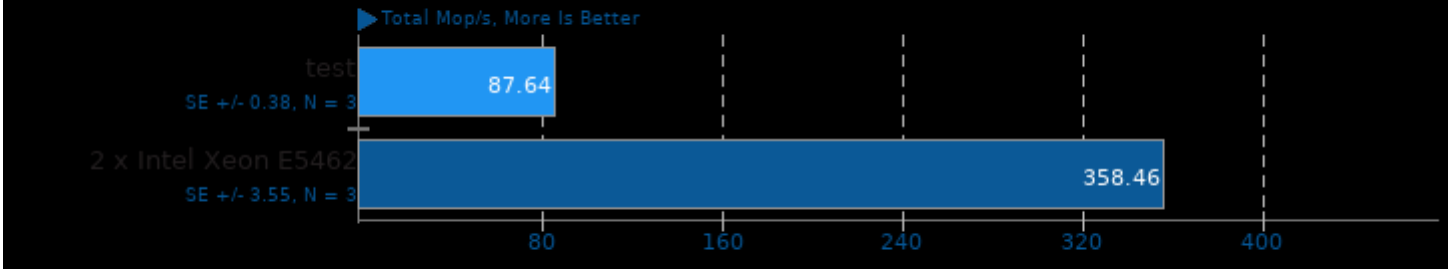
Benchmark: Solitaire



1. (CXX) g++ options: -O3 -fomit-frame-pointer -rdynamic -lboost_iostreams-mt -lz -lbz2

NAS Parallel Benchmarks 3.3

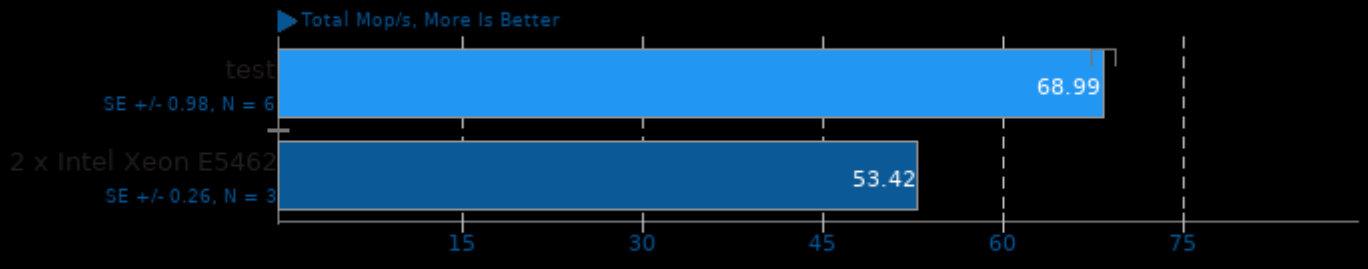
Test / Class: EP.B



1. (F9X) gfortran options: -fopenmp

NAS Parallel Benchmarks 3.3

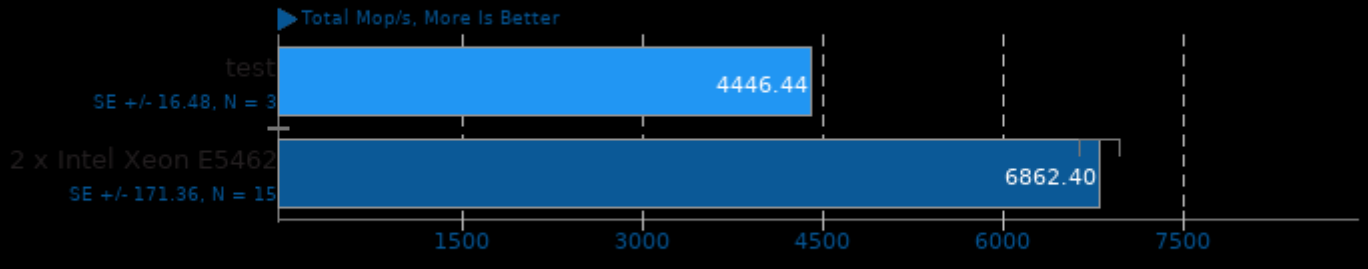
Test / Class: IS.C



1. (F9X) gfortran options: -fopenmp

NAS Parallel Benchmarks 3.3

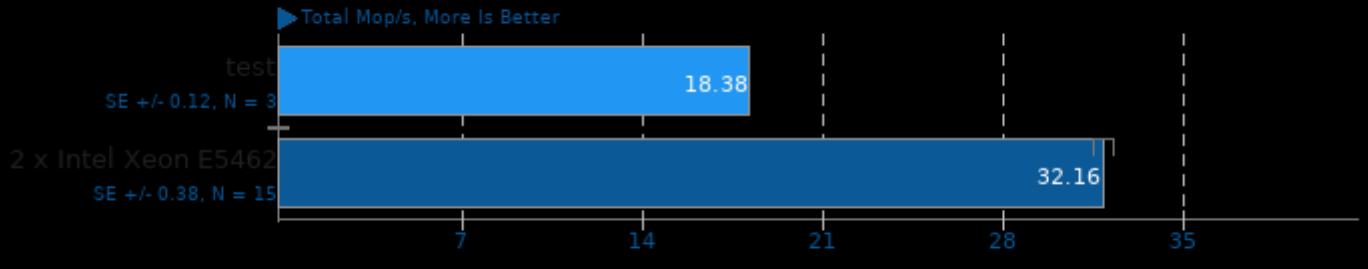
Test / Class: LU.A



1. (F9X) gfortran options: -fopenmp

NAS Parallel Benchmarks 3.3

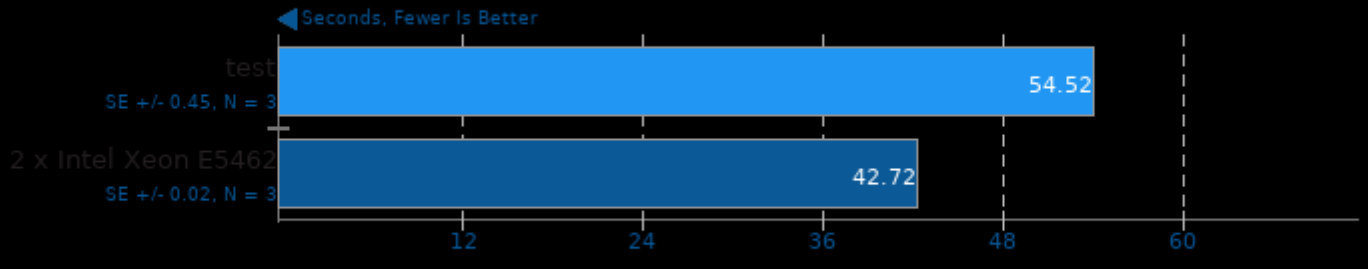
Test / Class: UA.A



1. (F9X) gfortran options: -fopenmp

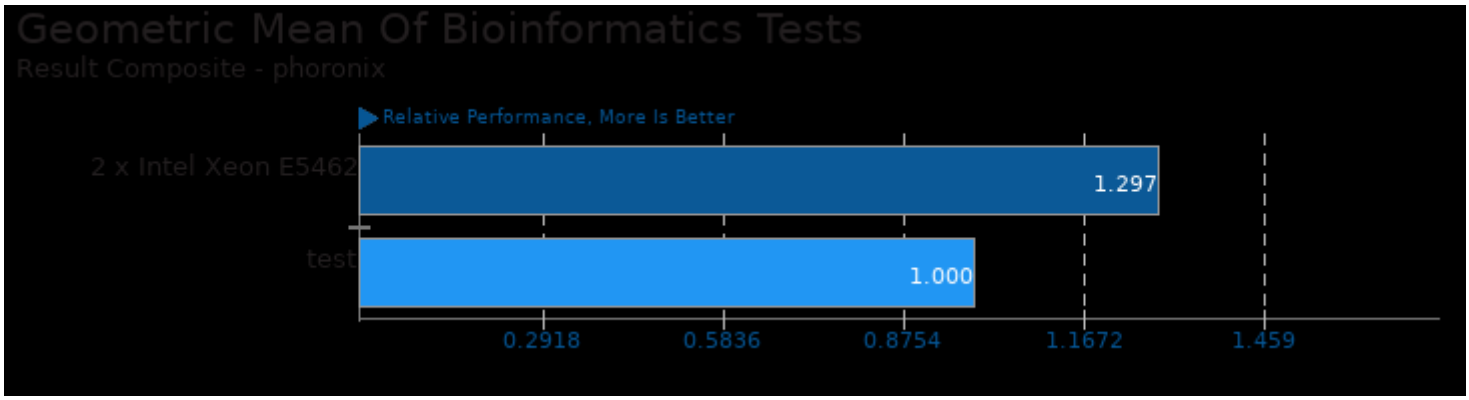
Timed PHP Compilation 5.2.9

Time To Compile

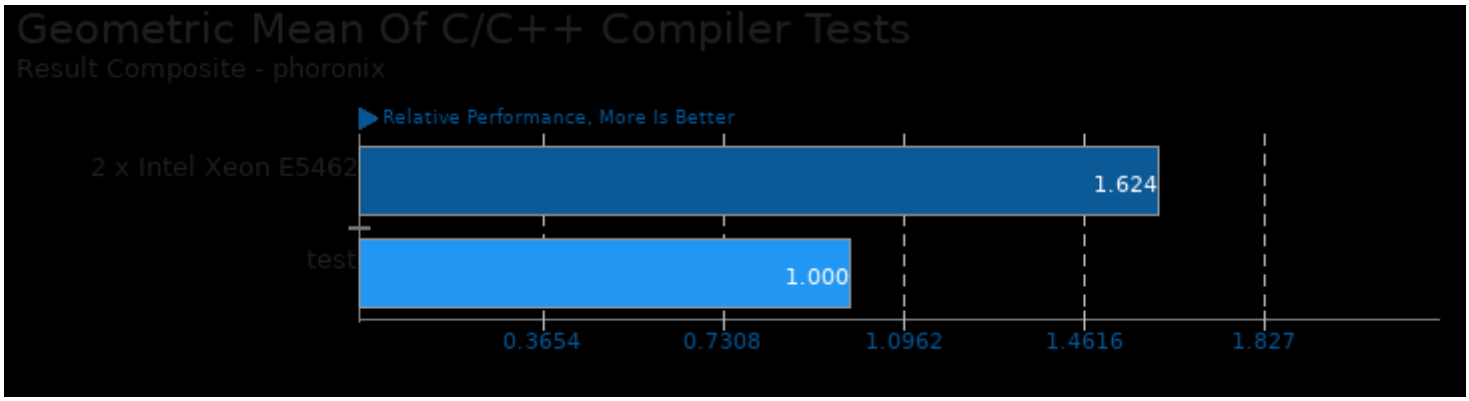


1. (CC) gcc options: -O2 -pedantic -ldl -lz -lm

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

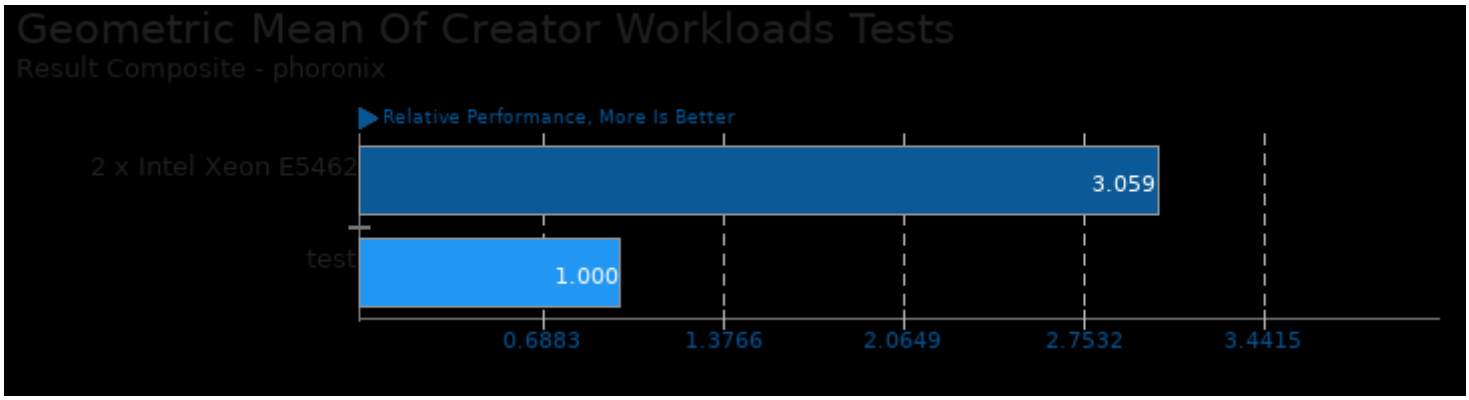


Geometric mean based upon tests: pts/himeno, pts/hmmer and pts/mafft

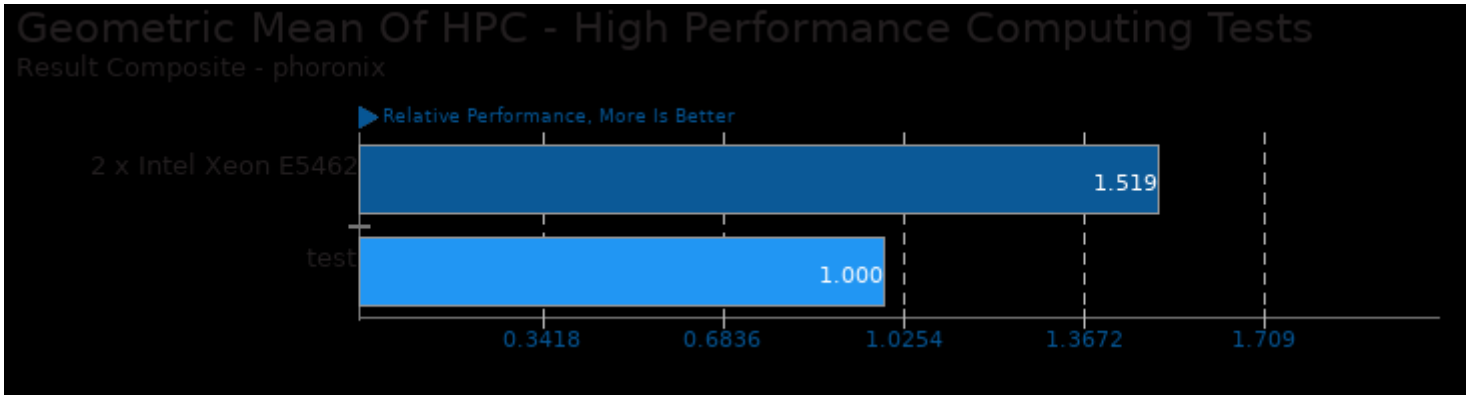


Geometric mean based upon tests: pts/mafft, pts/graphics-magick, pts/himeno, pts/hmmer, pts/build-php, pts/c-ray, pts/compress-7zip, pts/john-the-ripper, pts/x264 and pts/openssl

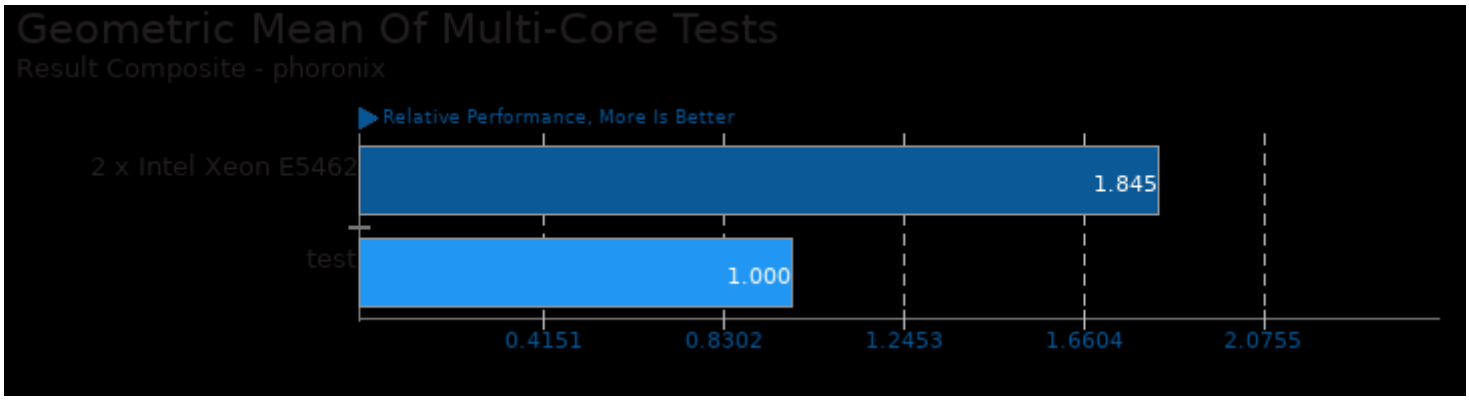
Geometric mean based upon tests: pts/build-php, pts/c-ray, pts/compress-7zip, pts/compress-pbzip2, pts/crafty, pts/x264, pts/graphics-magick, pts/himeno, pts/hmmer, pts/john-the-ripper, pts/openssl, pts/mafft, pts/minion and pts/npb



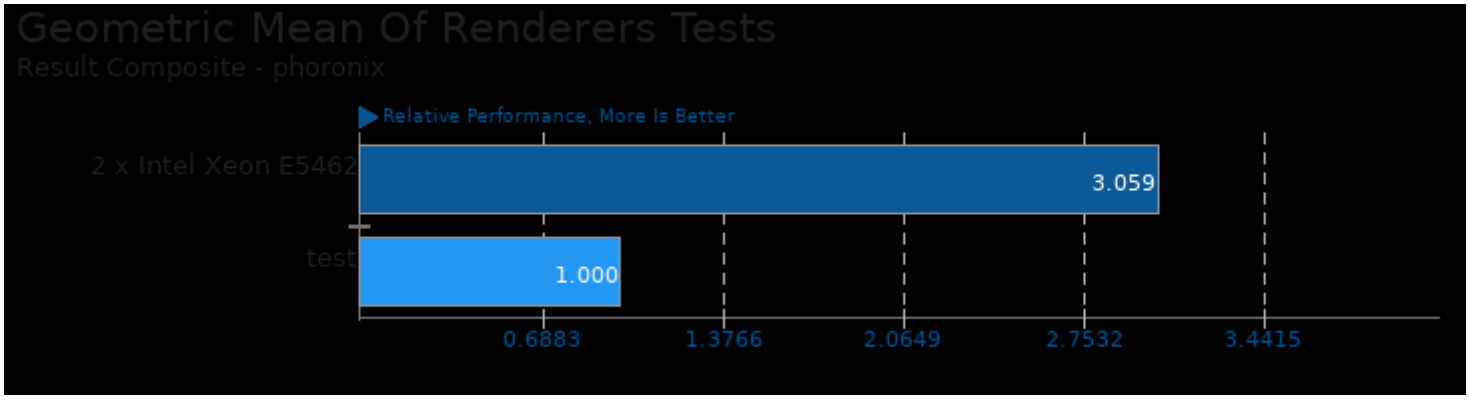
Geometric mean based upon tests: pts/c-ray, pts/smallpt, pts/x264 and pts/graphics-magick



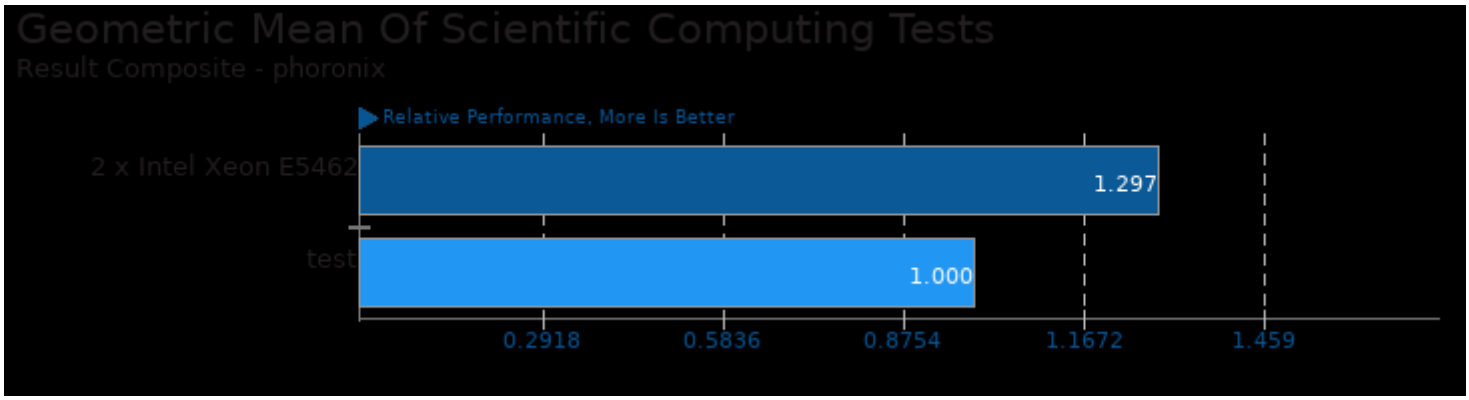
Geometric mean based upon tests: pts/npb, pts/himeno, pts/hmmer and pts/mafft



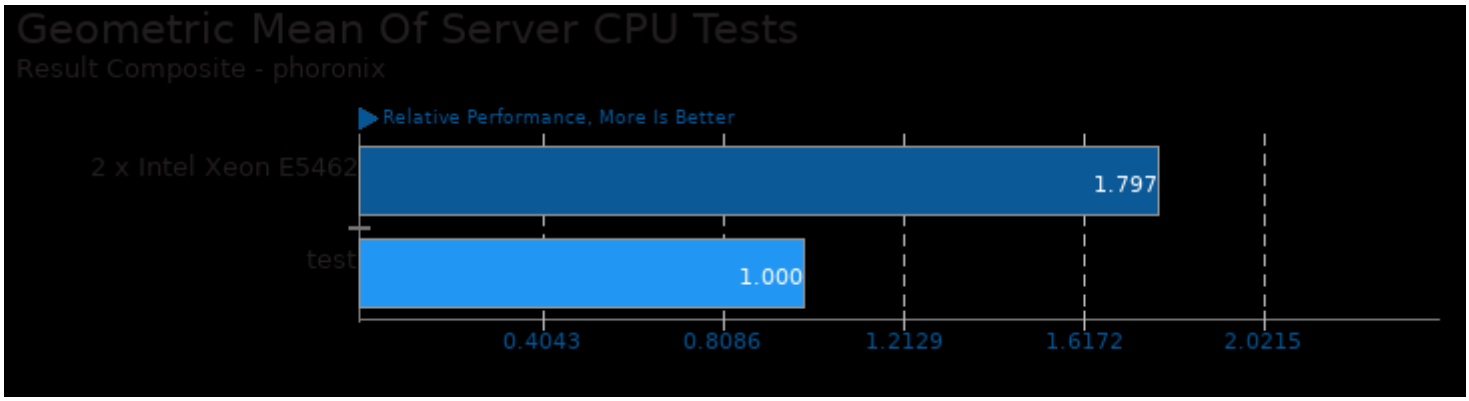
Geometric mean based upon tests: pts/c-ray, pts/x264, pts/npb, pts/john-the-ripper, pts/smallpt, pts/graphics-magick, pts/compress-7zip, pts/compress-pbzip2 and pts/build-php



Geometric mean based upon tests: pts/c-ray and pts/smallpt



Geometric mean based upon tests: pts/himeno, pts/hmmer and pts/mafft



Geometric mean based upon tests: pts/npb, pts/john-the-ripper, pts/x264, pts/himeno, pts/compress-7zip, pts/build-php, pts/c-ray and pts/openssl

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 09:33.