



Loop-Duplication

Intel Core i7-10750H testing with a CML Azalea_FMS (V1.03 BIOS) and NVIDIA GeForce GTX 1650 Ti 4GB on Ubuntu 20.04 via the Phoronix Test Suite.

Automated Executive Summary

results-clean had the most wins, coming in first place for 58% of the tests.

Based on the geometric mean of all complete results, the fastest (results-post-lclicm) was 1.181x the speed of the slowest (results-clean). results-post-lasbc was 0.989x the speed of results-post-lclicm and results-clean was 0.856x the speed of results-post-lasbc.

Test Systems:

results-clean

results-post-lclicm

results-post-lasbc

Processor: Intel Core i7-10750H @ 5.00GHz (6 Cores / 12 Threads), Motherboard: CML Azalea_FMS (V1.03 BIOS), Chipset: Intel Comet Lake PCH, Memory: 16GB, Disk: 1024GB Micron_2210_MTFDHB1T0QFD, Graphics: NVIDIA GeForce GTX 1650 Ti 4GB, Audio: Realtek ALC255, Network: Realtek RTL8111/8168/8411 + Intel Wi-Fi 6 AX201

OS: Ubuntu 20.04, Kernel: 5.13.0-40-generic (x86_64), Desktop: GNOME Shell 3.36.9, Display Server: X Server 1.20.13, Display Driver: NVIDIA 470.103.01, OpenGL: 4.6.0, Vulkan: 1.2.182, Compiler: Clang 15.0.0 + GCC 9.4.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Environment Notes: CXXFLAGS=-O3 CFLAGS=-O3

Compiler Notes: DEBUG build with assertions; Default target: x86_64-unknown-linux-gnu; Host CPU: skylake

Processor Notes: Scaling Governor: intel_pstate powersave (EPP: balance_performance) - CPU Microcode: 0xea - ThermalD 1.9.1

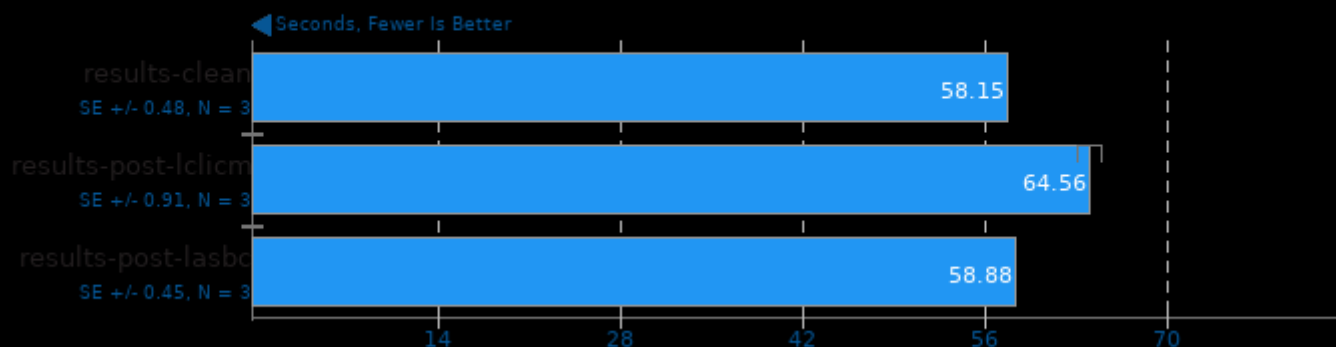
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + 1tft: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	results-clean	results-post-lclicm	results-post-lasbc
CppPerformanceBenchmarks - Atol (sec)	58.15	64.563	58.883
Normalized	100%	90.07%	98.76%
Standard Deviation	1.4%	2.4%	1.3%
CppPerformanceBenchmarks - Ctype (sec)	27.413	28.867	26.840
Normalized	97.91%	92.98%	100%
Standard Deviation	6%	3.7%	0.8%
CppPerformanceBenchmarks - Math Library (sec)	272.914	279.230	274.760
Normalized	100%	97.74%	99.33%
Standard Deviation	1%	0.9%	0.1%
CppPerformanceBenchmarks - Rand Numbers (sec)	1116	1201	1128
Normalized	100%	92.89%	98.95%
Standard Deviation	1.4%	5.5%	0.8%
CppPerformanceBenchmarks - Stepanov Vector (sec)	75.022	75.982	78.955
Normalized	100%	98.74%	95.02%
Standard Deviation	5.9%	6.7%	4.2%
CppPerformanceBenchmarks - Function Objects (sec)	14.793	15.157	15.172
Normalized	100%	97.6%	97.5%
Standard Deviation	1.8%	0%	0.1%
CppPerformanceBenchmarks - S.A (sec)	201.837	31.438	33.112
Normalized	15.58%	100%	94.94%
Standard Deviation	327.8%	5.8%	2.4%
SciMark - Composite (Mflops)	1447	2231	1704
Normalized	64.85%	100%	76.35%
Standard Deviation	2%	0.9%	4.7%
Timed MrBayes Analysis - P.P.A (sec)	126.629	125.491	129.765
Normalized	99.1%	100%	96.71%
Standard Deviation	1.7%	0.7%	2.4%

Timed PHP Compilation - Time To Compile (sec)	73.672	74.259	73.720
Normalized	100%	99.21%	99.93%
Standard Deviation	0.2%	0.2%	0.1%
Zstd Compression - 3, Long Mode - Compression Speed (MB/s)	774.9	770.1	773.4
Normalized	100%	99.38%	99.81%
Standard Deviation	0.4%	0.3%	0.3%
Zstd Compression - 3, Long Mode - D.S	3009	2992	3011
Normalized	99.92%	99.37%	100%
Standard Deviation	0.1%	0.1%	0.2%

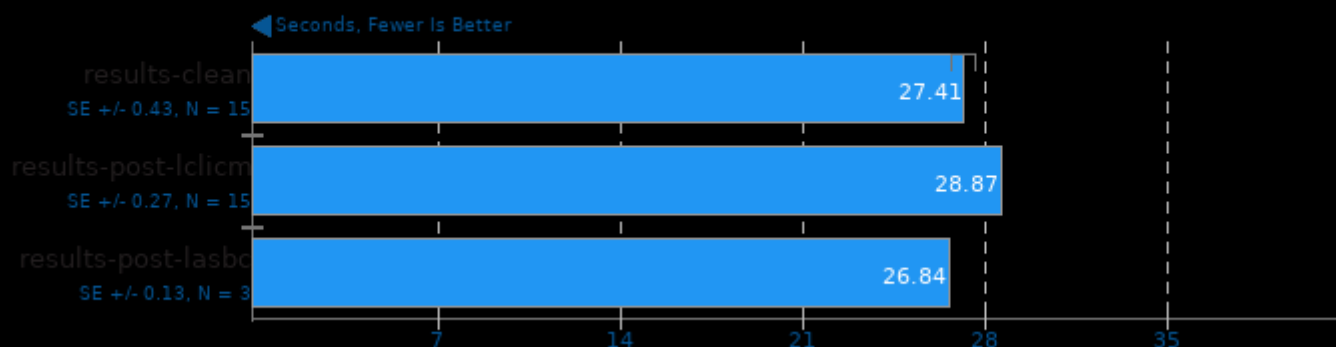
CppPerformanceBenchmarks 9

Test: Atol



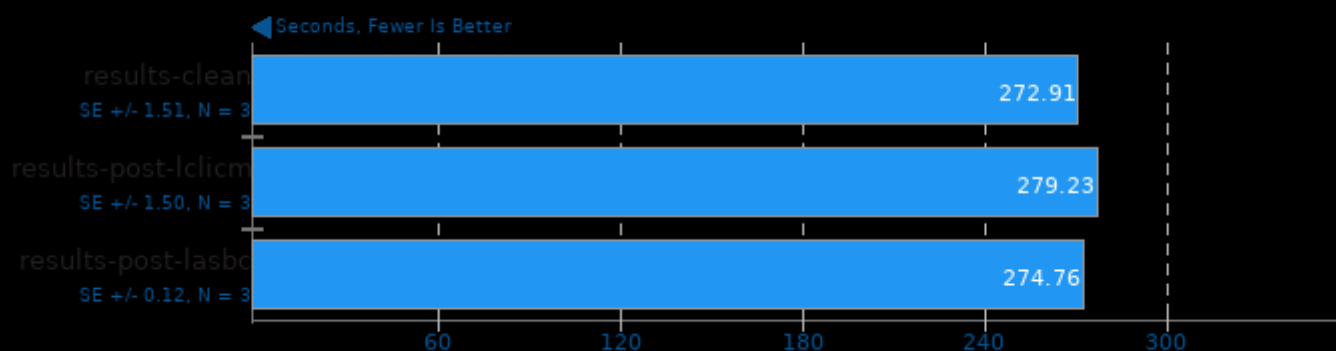
CppPerformanceBenchmarks 9

Test: Ctype



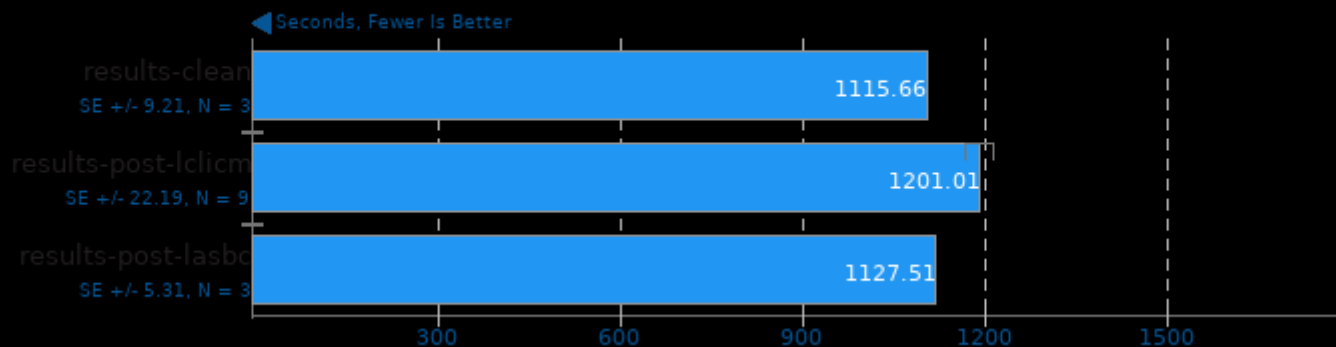
CppPerformanceBenchmarks 9

Test: Math Library



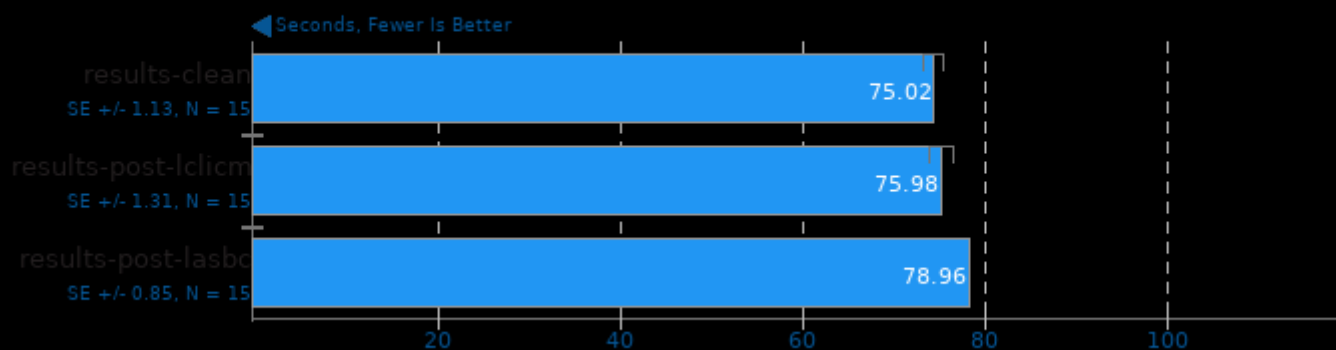
CppPerformanceBenchmarks 9

Test: Random Numbers



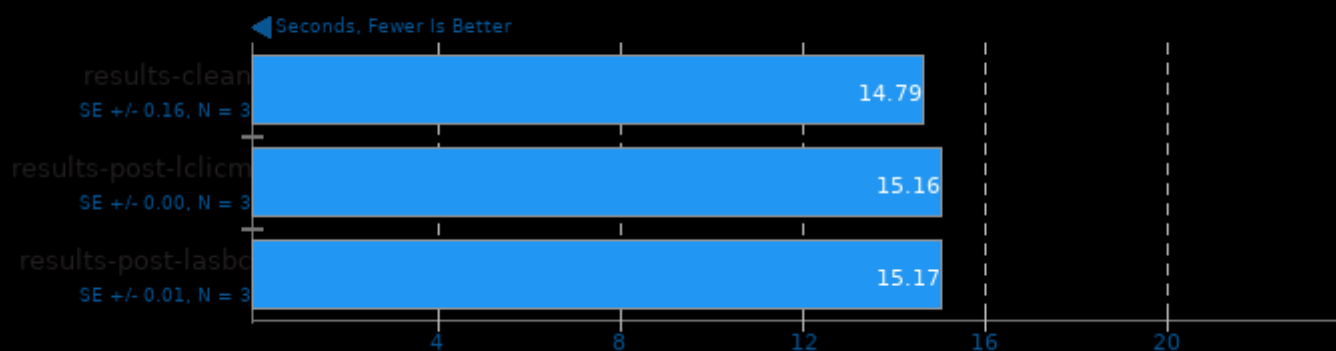
CppPerformanceBenchmarks 9

Test: Stepanov Vector



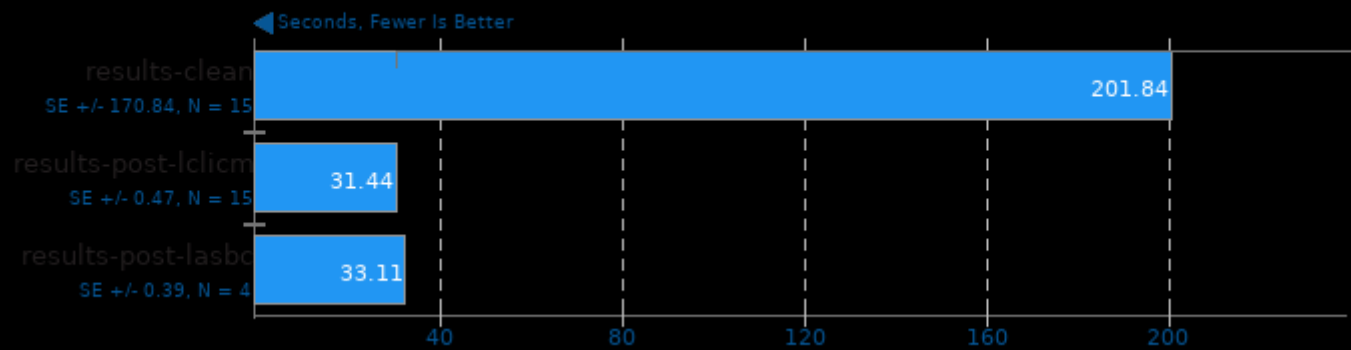
CppPerformanceBenchmarks 9

Test: Function Objects



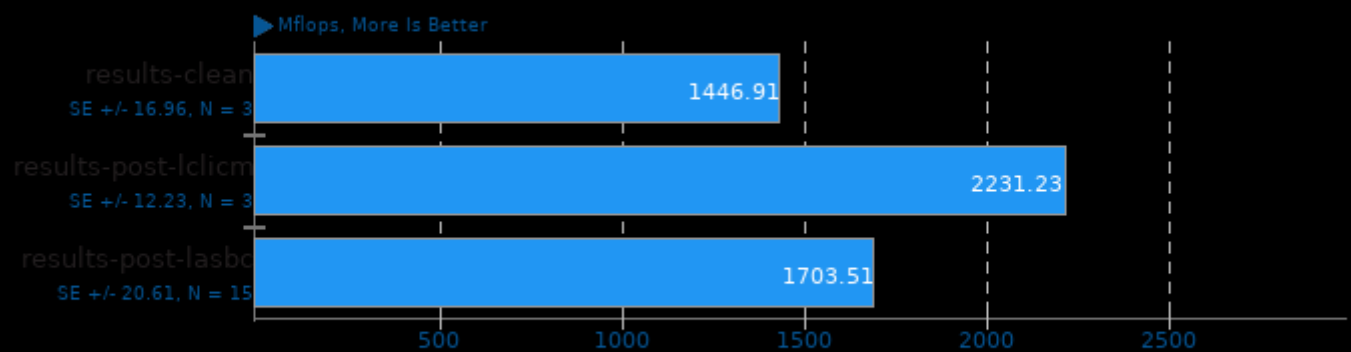
CppPerformanceBenchmarks 9

Test: Stepanov Abstraction



SciMark 2.0

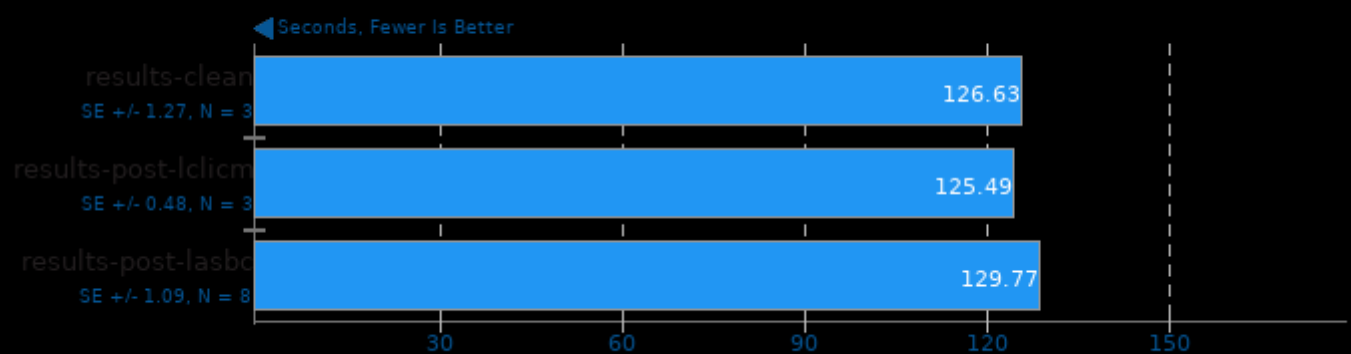
Computational Test: Composite



1. (CC) clang options: -O3 -lm

Timed MrBayes Analysis 3.2.7

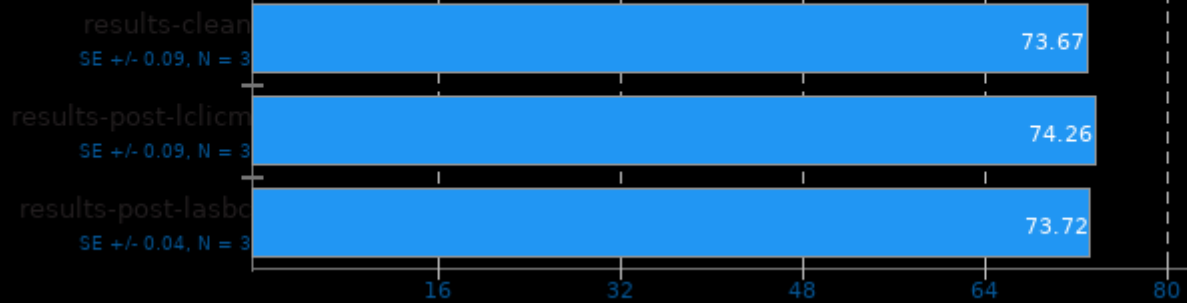
Primate Phylogeny Analysis



Timed PHP Compilation 7.4.2

Time To Compile

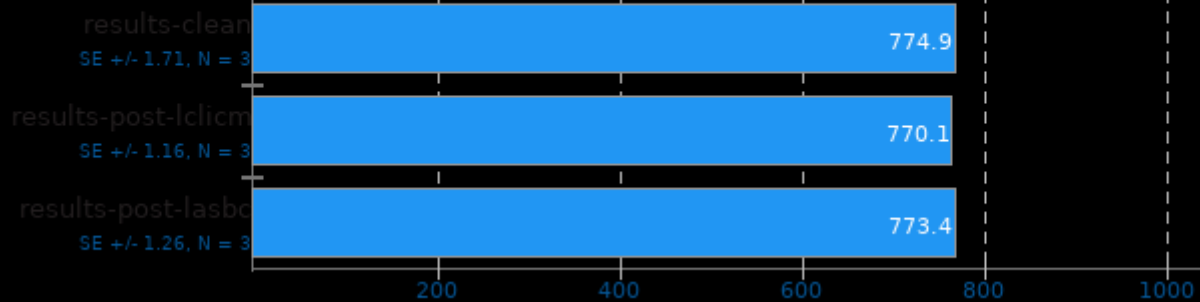
◀ Seconds, Fewer Is Better



Zstd Compression 1.5.0

Compression Level: 3, Long Mode - Compression Speed

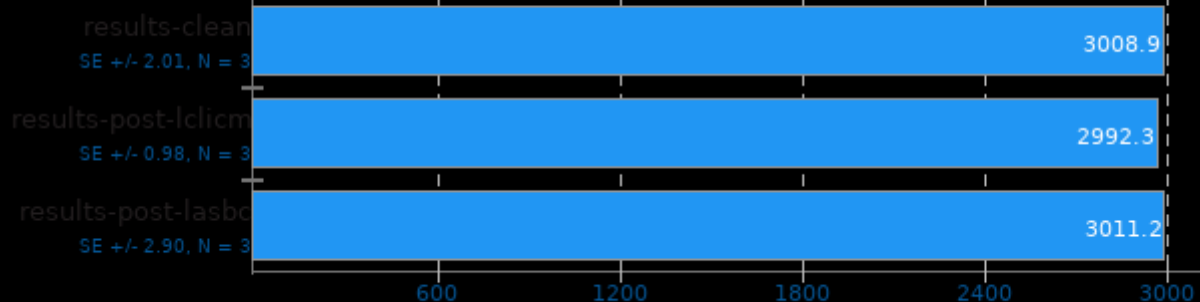
▶ MB/s, More Is Better



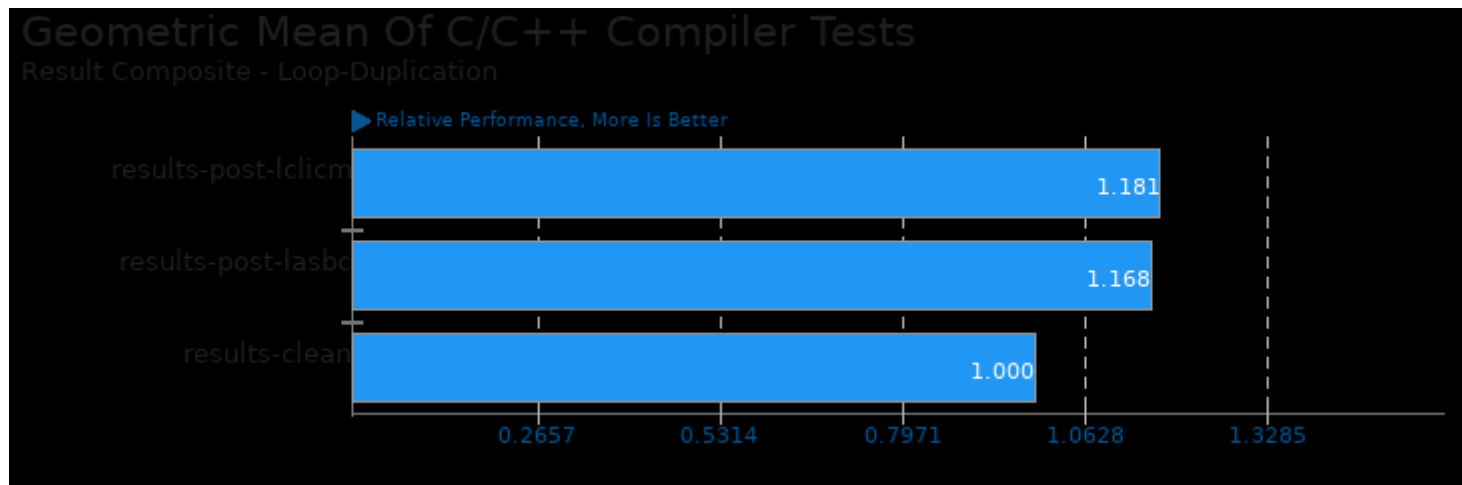
Zstd Compression 1.5.0

Compression Level: 3, Long Mode - Decompression Speed

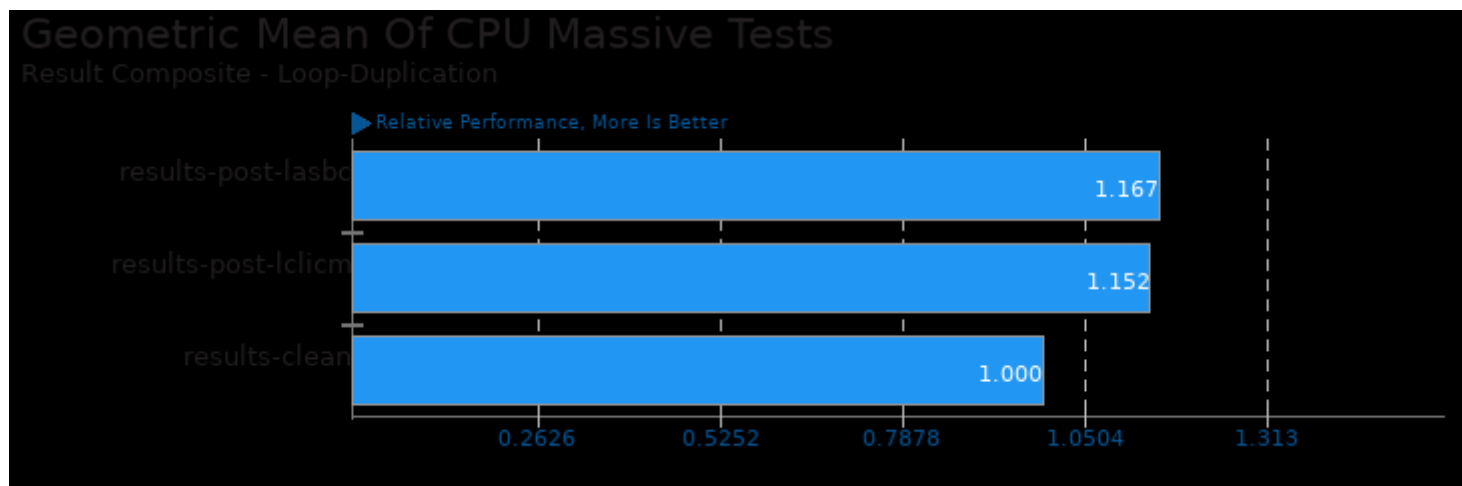
▶ MB/s, More Is Better



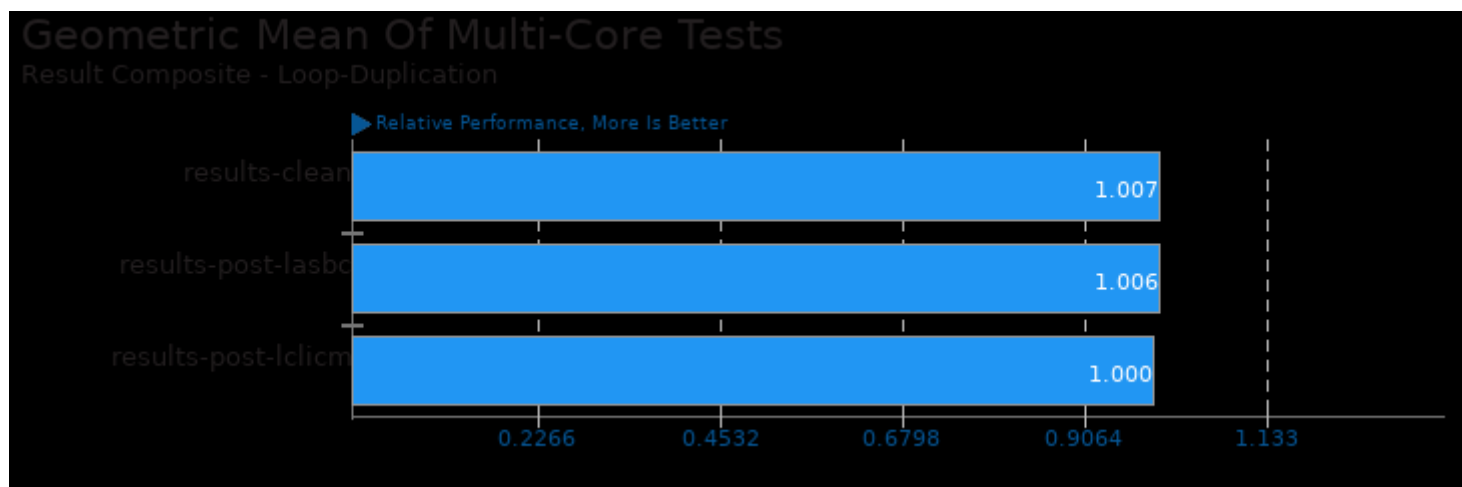
These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/scimark2, pts/build-php, pts/cpp-perf-bench, pts/mrbyes and pts/compress-zstd

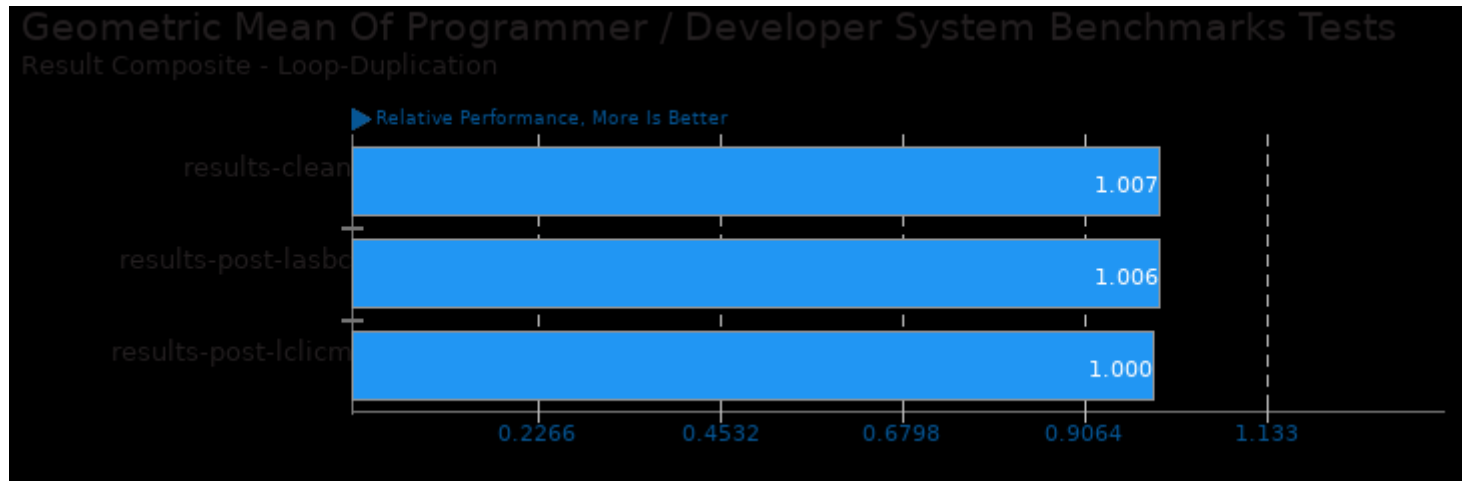


Geometric mean based upon tests: pts/build-php, pts/compress-zstd, pts/cpp-perf-bench and pts/mrbyes

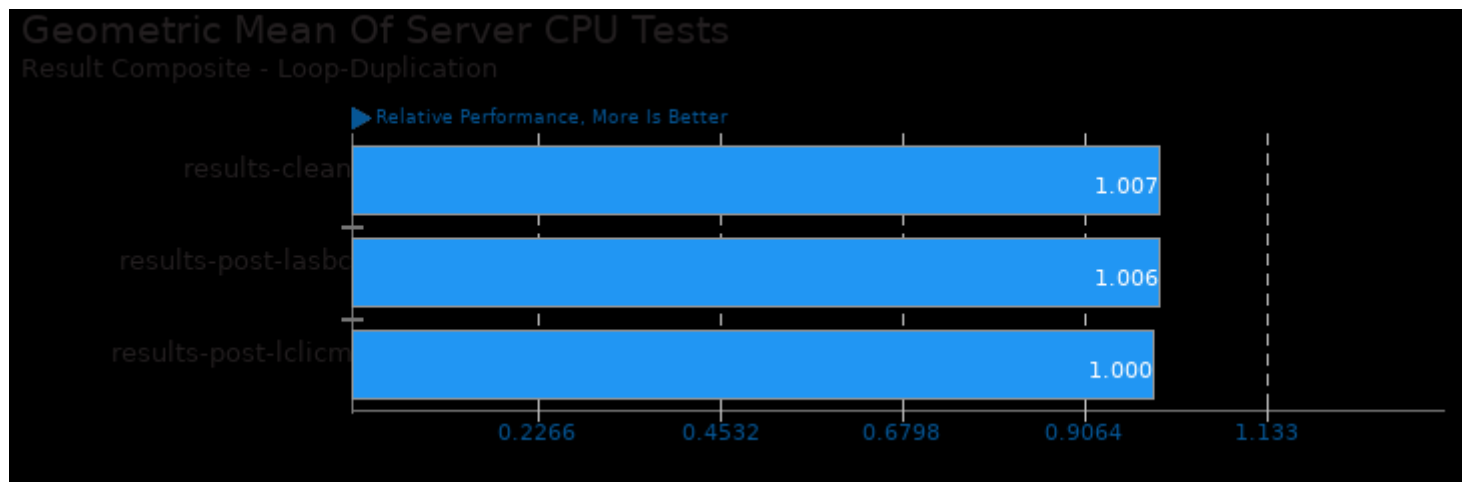


Geometric mean based upon tests: pts/compress-zstd and pts/build-php

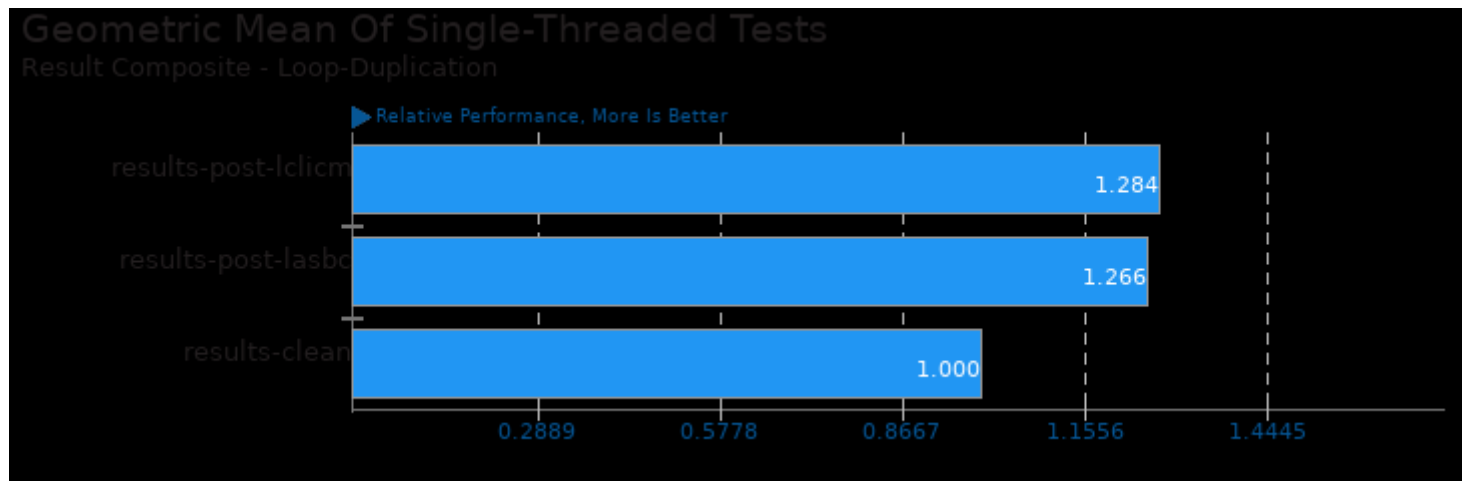
Loop-Duplication



Geometric mean based upon tests: pts/compress-zstd and pts/build-php



Geometric mean based upon tests: pts/build-php and pts/compress-zstd



Geometric mean based upon tests: pts/scimark2 and pts/cpp-perf-bench

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 05:59.