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cpu 3800

AMD Ryzen 9 3900X 12-Core testing with a ASUS TUF GAMING X570-PLUS (WI-FI) (1407 BIOS) and AMD Radeon RX 56/64 8GB on Arch rolling via the Phoronix Test Suite.

Automated Executive Summary

AMD Ryzen 9 3900X 12-Core had the most wins, coming in first place for 87% of the tests.

Based on the geometric mean of all complete results, the fastest (AMD Ryzen 9 3900X 12-Core) was 1.008x the speed of the slowest (cpu3600).

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

*Timed Mesa Compilation (Time To Compile) at 1.041x
Timed MPlayer Compilation (Time To Compile) at 1.034x
Build2 (Time To Compile) at 1.026x
Timed Clash Compilation (Time To Compile) at 1.022x
Timed LLVM Compilation (Build System: Unix Makefiles) at 1.022x
Timed PHP Compilation (Time To Compile) at 1.016x
Timed FFmpeg Compilation (Time To Compile) at 1.016x
Timed ImageMagick Compilation (Time To Compile) at 1.015x
Timed GDB GNU Debugger Compilation (Time To Compile) at 1.01x*

Timed LLVM Compilation (Build System: Ninja) at 1.009x.

Test Systems:

AMD Ryzen 9 3900X 12-Core

cpu3600

Processor: AMD Ryzen 9 3900X 12-Core @ 3.80GHz (12 Cores / 24 Threads), Motherboard: ASUS TUF GAMING X570-PLUS (WI-FI) (1407 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1024GB INTEL SSDPEKNW010T8 + 3001GB TOSHIBA DT01ACA3 + 240GB INTEL SSDSC2CW24 + 6001GB Seagate ST6000DM001-1XY1 + 2000GB Seagate ST2000DL003-9VT1 + 500GB Western Digital WDS500G2B0A + 8002GB Seagate ST8000DM004-2CX1, Graphics: AMD Radeon RX 56/64 8GB (1630/945MHz), Audio: AMD Vega 10 HDMI Audio, Monitor: DUAL-DVI, Network: Realtek RTL8111/8168/8411 + Intel-AC 9260

OS: Arch rolling, Kernel: 5.17.9-arch1-1 (x86_64), Display Server: X Server 1.21.1.3, OpenGL: 4.6 Mesa 22.0.4 (LLVM 13.0.1 DRM 3.44), OpenCL: OpenCL 2.0 AMD-APP (3261.0) + OpenCL 1.1 Mesa 22.0.4, Compiler: GCC 12.1.0 + Clang 13.0.1 + LLVM 13.0.1, File-System: ext4, Screen Resolution: 2560x1440

Kernel Notes: amdgpu.pffeaturemask=0xffffffff - Transparent Huge Pages: madvise

Environment Notes: NVM_CD_FLAGS=-q

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet=auto --enable-checking=release --enable-clocale-gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++ --enable-link-serialization=1 --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-build-config=bootstrap-lto --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0x8701013

Python Notes: Python 3.10.4

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional STIBP: conditional RSB filling + srbs: Not affected + tsx_async_abort: Not affected

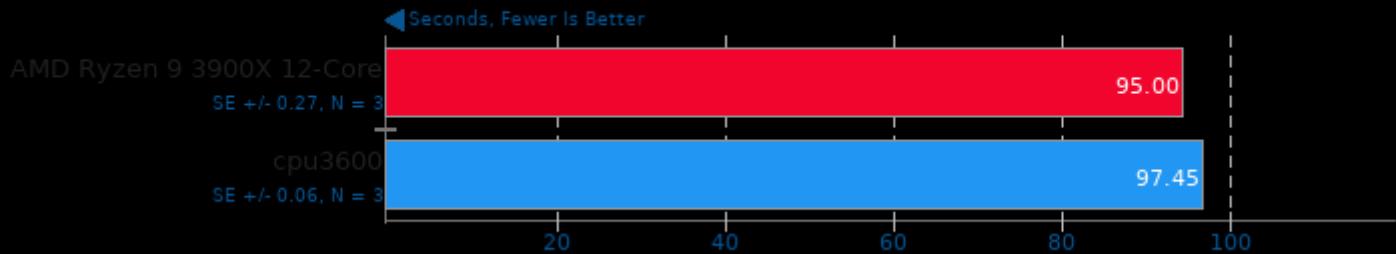
	AMD Ryzen 9 3900X 12-Core	cpu3600
Build2 - Time To Compile (sec)	94.997	97.445
Normalized	100%	97.49%
Standard Deviation	0.5%	0.1%
Timed Apache Compilation - Time To Compile (sec)	24.080	24.107
Normalized	99.2%	99.09%
Standard Deviation	0.5%	0.4%
Timed Clash Compilation - Time To Compile (sec)	2.062	2.040
Normalized	97.82%	98.87%
Standard Deviation	4.1%	4.8%
Timed Eigen Compilation - Time To Compile (sec)	81.656	81.417
Normalized	99.33%	99.62%
Standard Deviation	0.3%	1.1%
Timed Erlang/OTP Compilation - Time To Compile (sec)	133.984	133.281

	Normalized	99.48%	100%
	Standard Deviation	0.2%	0.1%
Timed FFmpeg Compilation - Time To Compile (sec)	41.921	41.855	
	Normalized	98.47%	98.63%
	Standard Deviation	0.2%	0.2%
Timed GCC Compilation - Time To Compile (sec)	817.996	814.056	
	Normalized	99.52%	100%
	Standard Deviation	0.9%	0.9%
Timed GDB GNU Debugger Compilation - Time To Compile (sec)	63.910	63.414	
	Normalized	99.01%	99.78%
	Standard Deviation	1.3%	1.1%
Timed Godot Game Engine Compilation - Time To Compile (sec)	97.283	96.671	
	Normalized	99.3%	99.92%
	Standard Deviation	0.3%	0.4%
Timed ImageMagick Compilation - Time To Compile	23.848	24.213	
	Normalized	100%	98.49%
	Standard Deviation	0.6%	1.4%
Timed LLVM Compilation - Ninja (sec)	472.882	477.307	
	Normalized	100%	99.07%
	Standard Deviation	0.1%	0.3%
Timed LLVM Compilation - Unix Makefiles (sec)	509.545	520.650	
	Normalized	100%	97.87%
	Standard Deviation	1.4%	1.8%
Timed Mesa Compilation - Time To Compile (sec)	41.490	43.187	
	Normalized	100%	96.07%
	Standard Deviation	0.4%	0.9%
Timed MPlayer Compilation - Time To Compile (sec)	28.756	29.723	
	Normalized	100%	96.75%
	Standard Deviation	0.1%	0.2%
Timed PHP Compilation - Time To Compile (sec)	54.287	55.148	
	Normalized	100%	98.44%
	Standard Deviation	0.3%	0.5%
Timed Wasmer Compilation - Time To Compile (sec)	57.064	57.193	
	Normalized	99.42%	99.19%
	Standard Deviation	0.8%	2.2%

cpu 3800

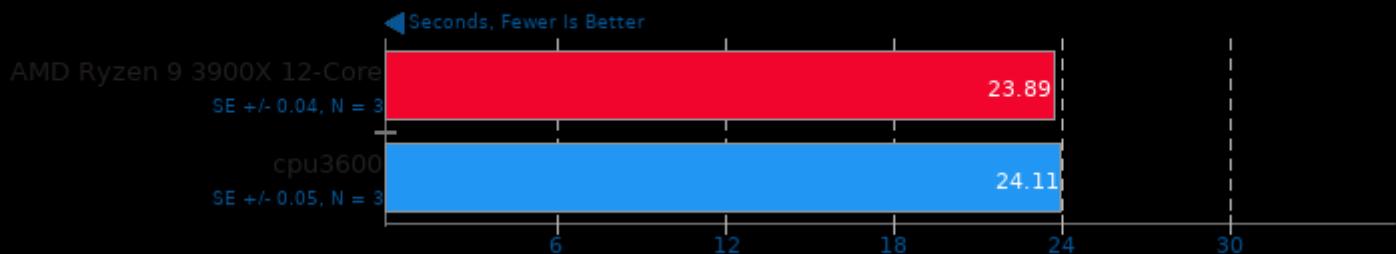
Build2 0.13

Time To Compile



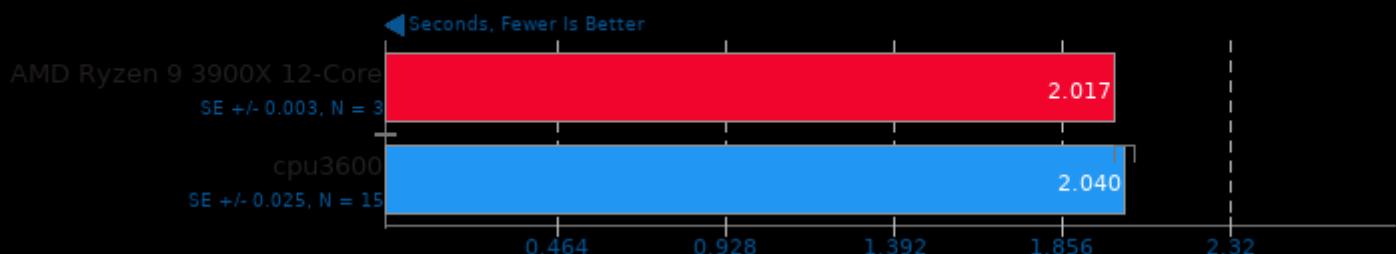
Timed Apache Compilation 2.4.41

Time To Compile



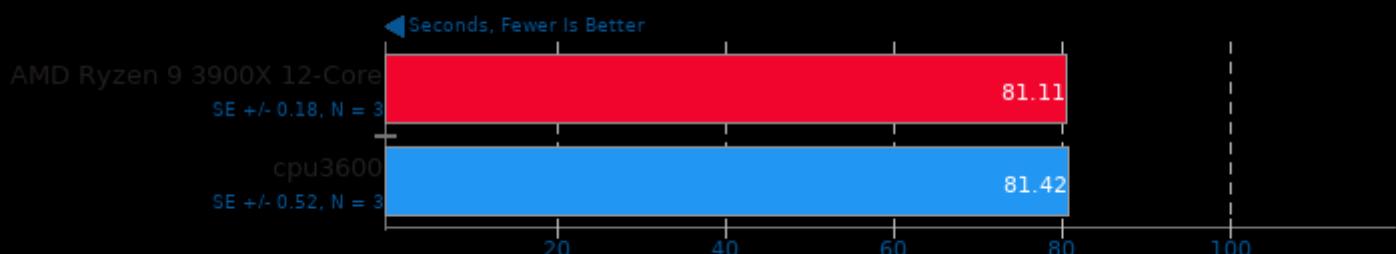
Timed Clash Compilation

Time To Compile



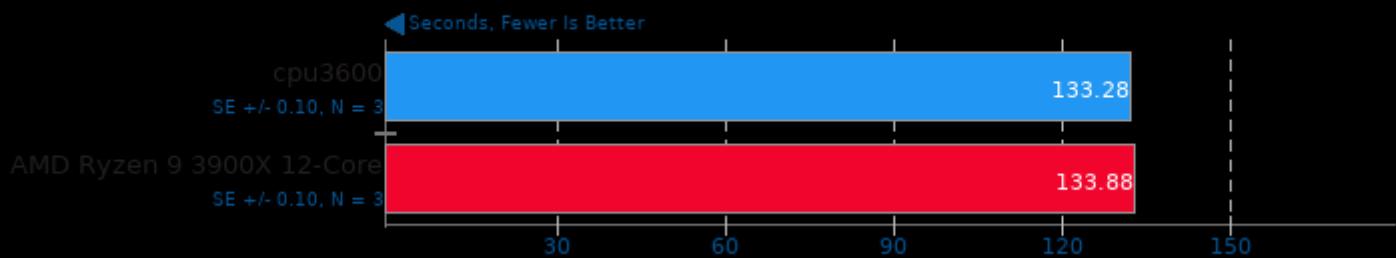
Timed Eigen Compilation 3.3.9

Time To Compile



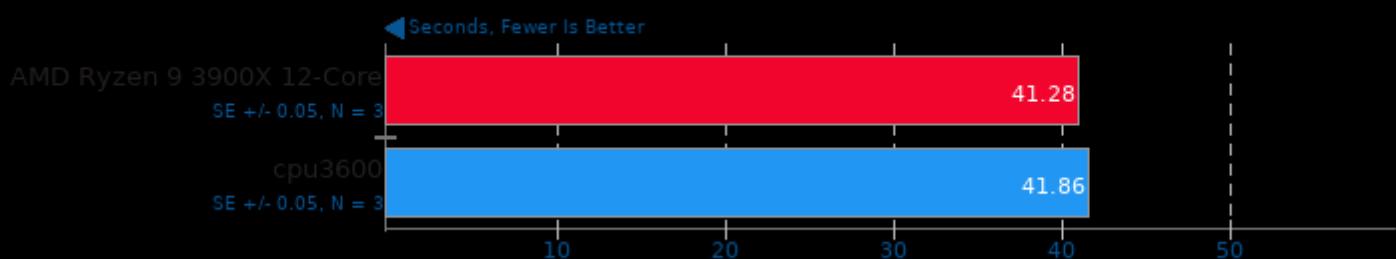
Timed Erlang/OTP Compilation 23.2

Time To Compile



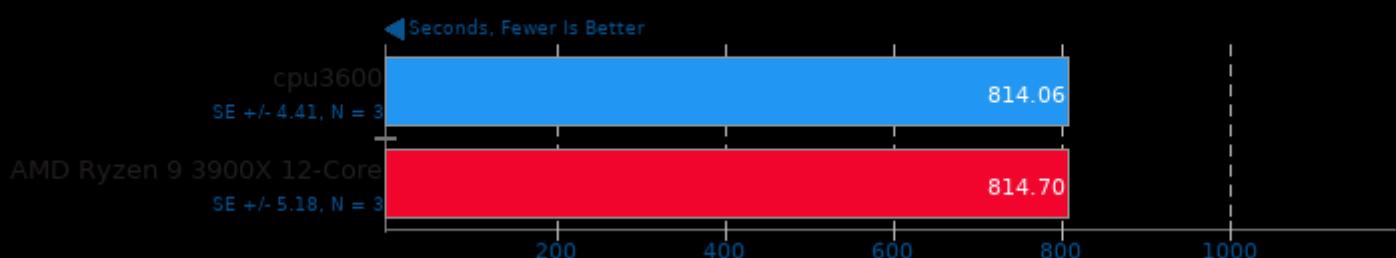
Timed FFmpeg Compilation 4.4

Time To Compile



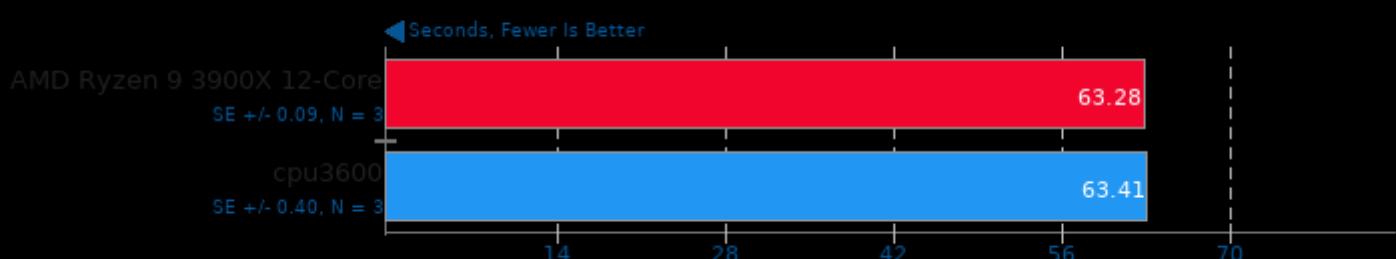
Timed GCC Compilation 11.2.0

Time To Compile



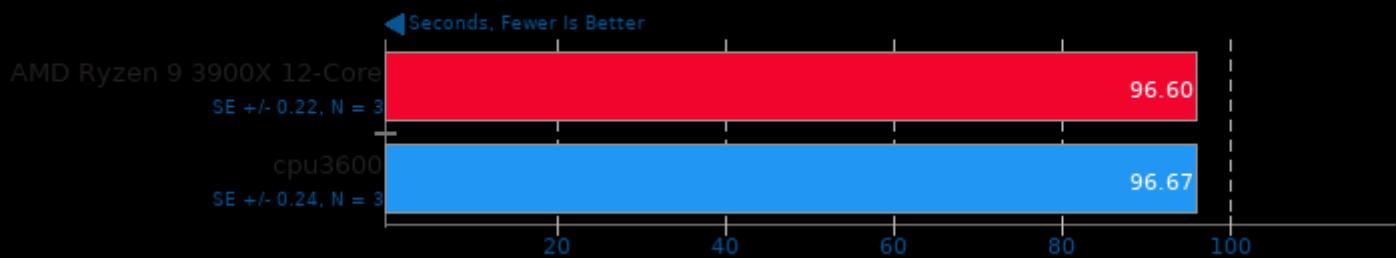
Timed GDB GNU Debugger Compilation 10.2

Time To Compile



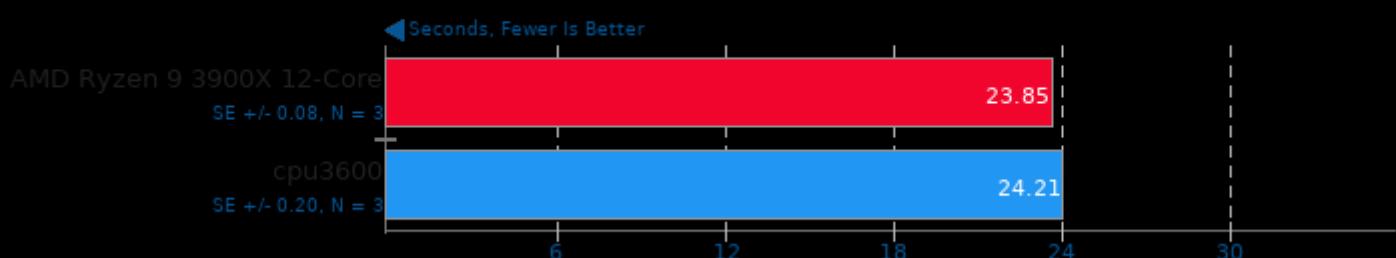
Timed Godot Game Engine Compilation 3.2.3

Time To Compile



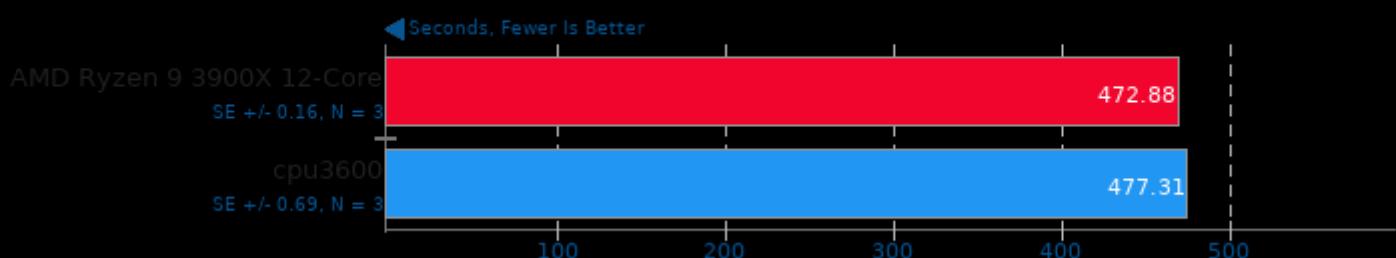
Timed ImageMagick Compilation 6.9.0

Time To Compile



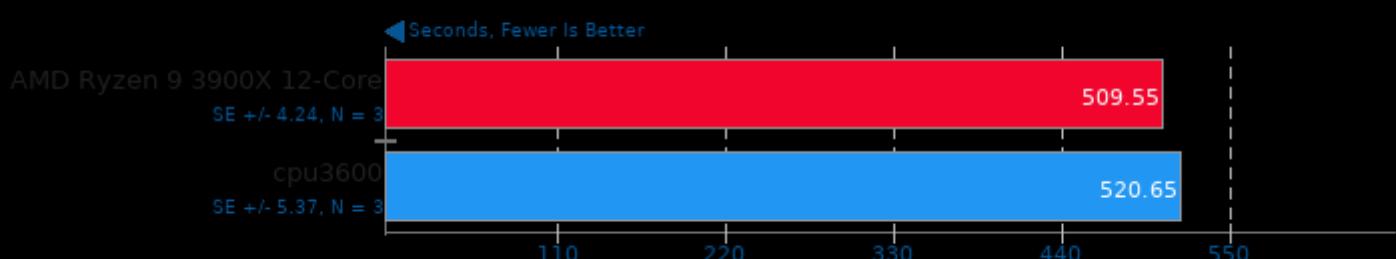
Timed LLVM Compilation 13.0

Build System: Ninja



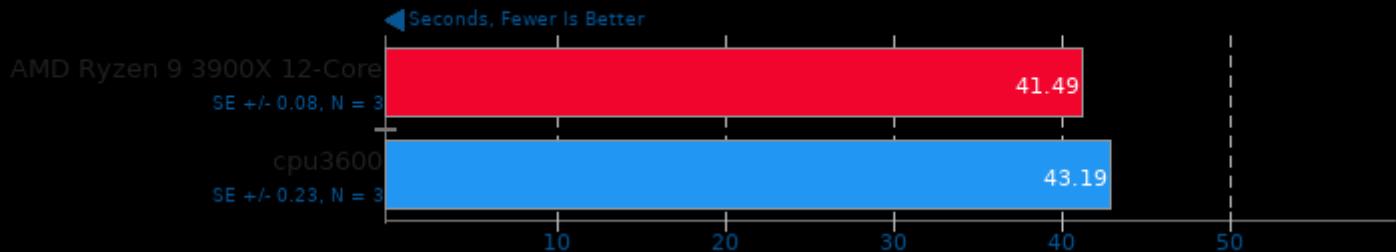
Timed LLVM Compilation 13.0

Build System: Unix Makefiles



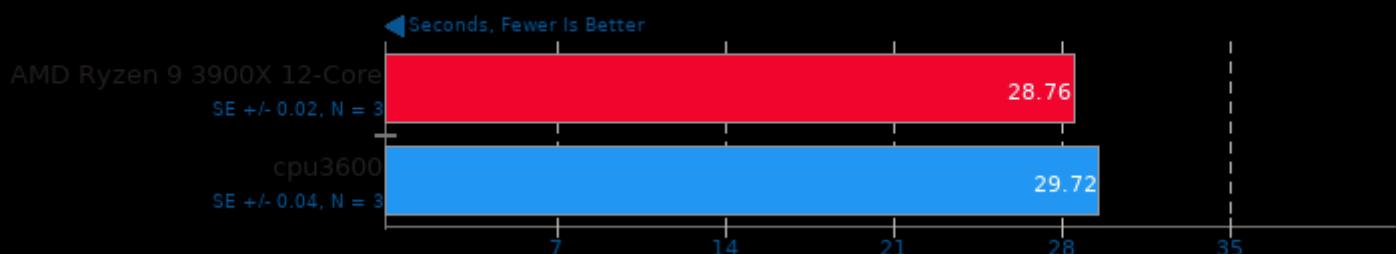
Timed Mesa Compilation 21.0

Time To Compile



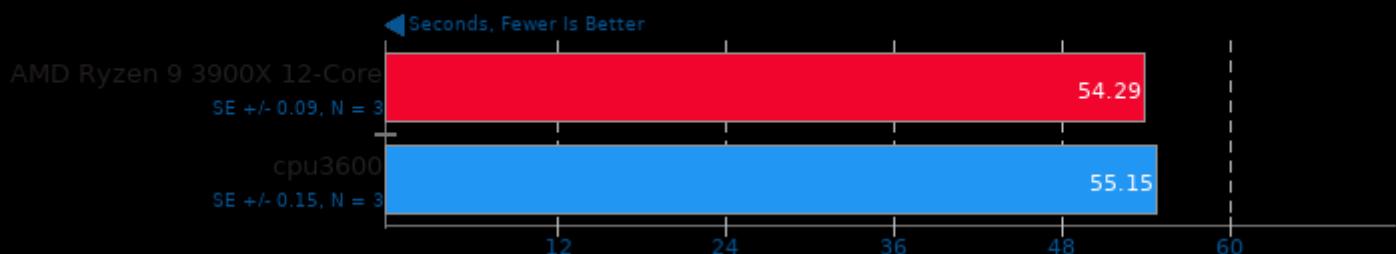
Timed MPlayer Compilation 1.5

Time To Compile



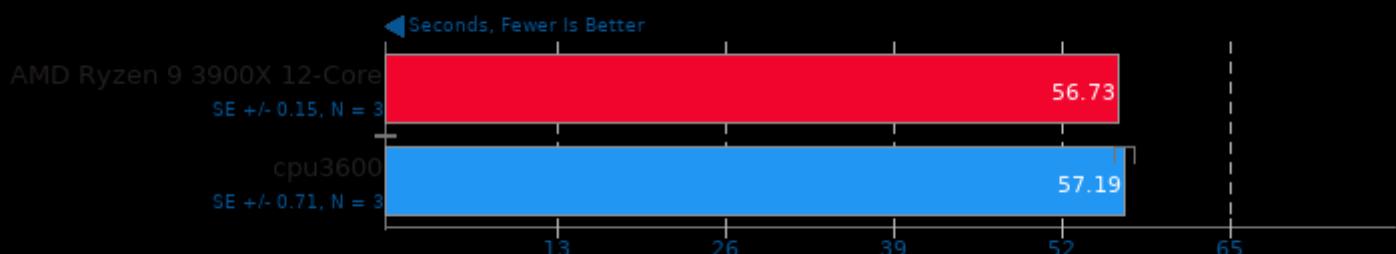
Timed PHP Compilation 7.4.2

Time To Compile



Timed Wasmer Compilation 2.2

Time To Compile



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

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



Geometric mean based upon tests: pts/build-apache, pts/build-php, pts/build-eigen, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-mplayer, pts/build2, pts/build-godot, pts/build-erlang, pts/build-wasmer, pts/build-nodejs, pts/build-mesa and pts/build-gem5



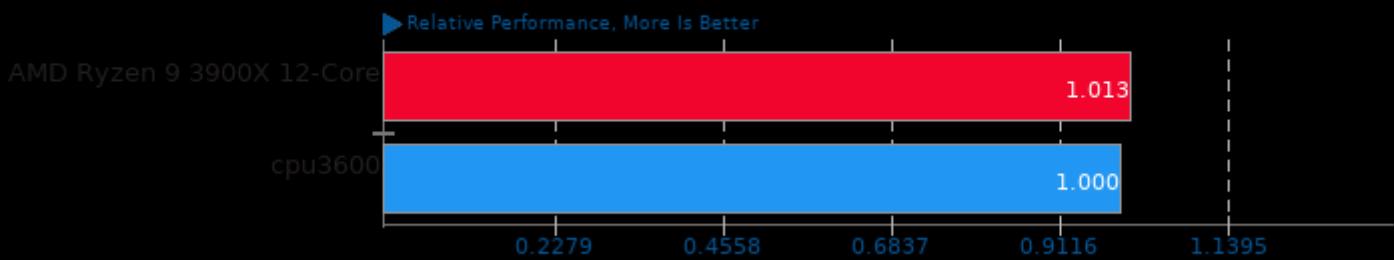
Geometric mean based upon tests: pts/build-php, pts/build-imagemagick, pts/build-llvm, pts/build-gdb, pts/build-ffmpeg, pts/build-apache and pts/build-mplayer



Geometric mean based upon tests: pts/build-apache, pts/build-gcc, pts/build-llvm, pts/build-linux-kernel and pts/build-php

Geometric Mean Of Multi-Core Tests

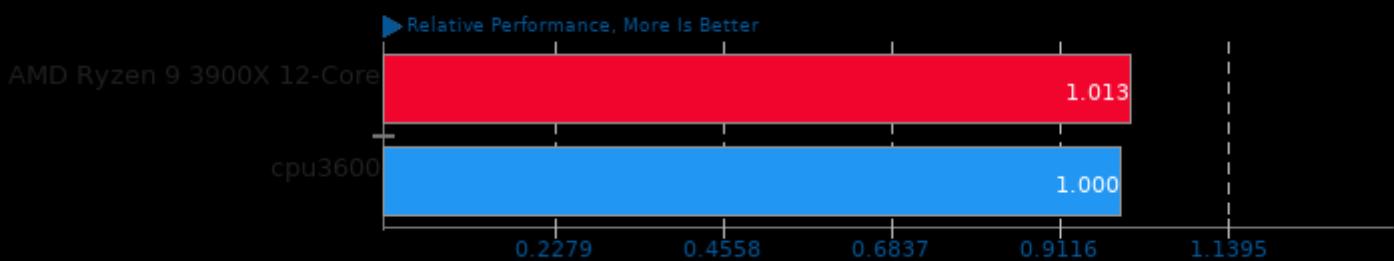
Result Composite - cpu 3800



Geometric mean based upon tests: pts/build-apache, pts/build-php, pts/build-eigen, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-mplayer, pts/build2, pts/build-godot, pts/build-erlang, pts/build-wasmer, pts/build-nodejs, pts/build-mesa and pts/build-gem5

Geometric Mean Of Programmer / Developer System Benchmarks Tests

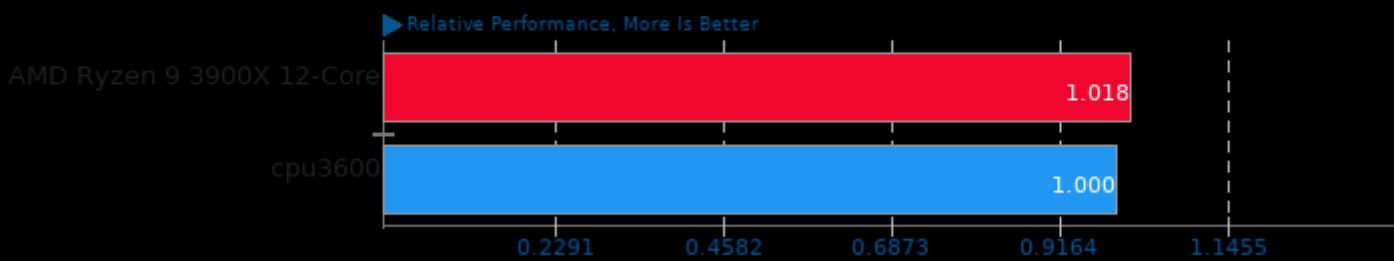
Result Composite - cpu 3800



Geometric mean based upon tests: pts/build-apache, pts/build-php, pts/build-eigen, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-mplayer, pts/build2, pts/build-godot, pts/build-erlang, pts/build-wasmer, pts/build-nodejs, pts/build-mesa and pts/build-gem5

Geometric Mean Of Python Tests

Result Composite - cpu 3800

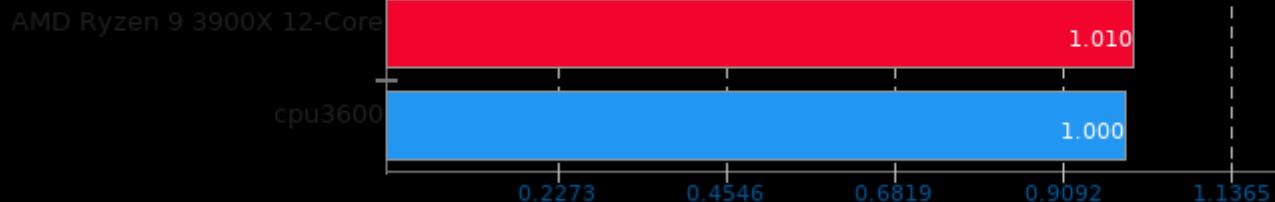


Geometric mean based upon tests: pts/build-gem5, pts/build-godot, pts/build-llvm, pts/build-mesa and pts/build-nodejs

Geometric Mean Of Server CPU Tests

Result Composite - cpu 3800

► Relative Performance, More Is Better



Geometric mean based upon tests: pts/build-gcc, pts/build-linux-kernel, pts/build-php and pts/build-llvm

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 20:39.