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3900XT Tues

AMD Ryzen 9 3900XT 12-Core testing with a MSI MEG X570 GODLIKE (MS-7C34) v1.0 (1.B3 BIOS) and AMD Radeon RX 56/64 8GB on Ubuntu 20.10 via the Phoronix Test Suite.

Automated Executive Summary

4 had the most wins, coming in first place for 50% of the tests.

Based on the geometric mean of all complete results, the fastest (4) was 1.034x the speed of the slowest (3). 2 was 0.988x the speed of 4, 1 was 0.995x the speed of 2, 3 was 0.983x the speed of 1.

Test Systems:

1

2

3

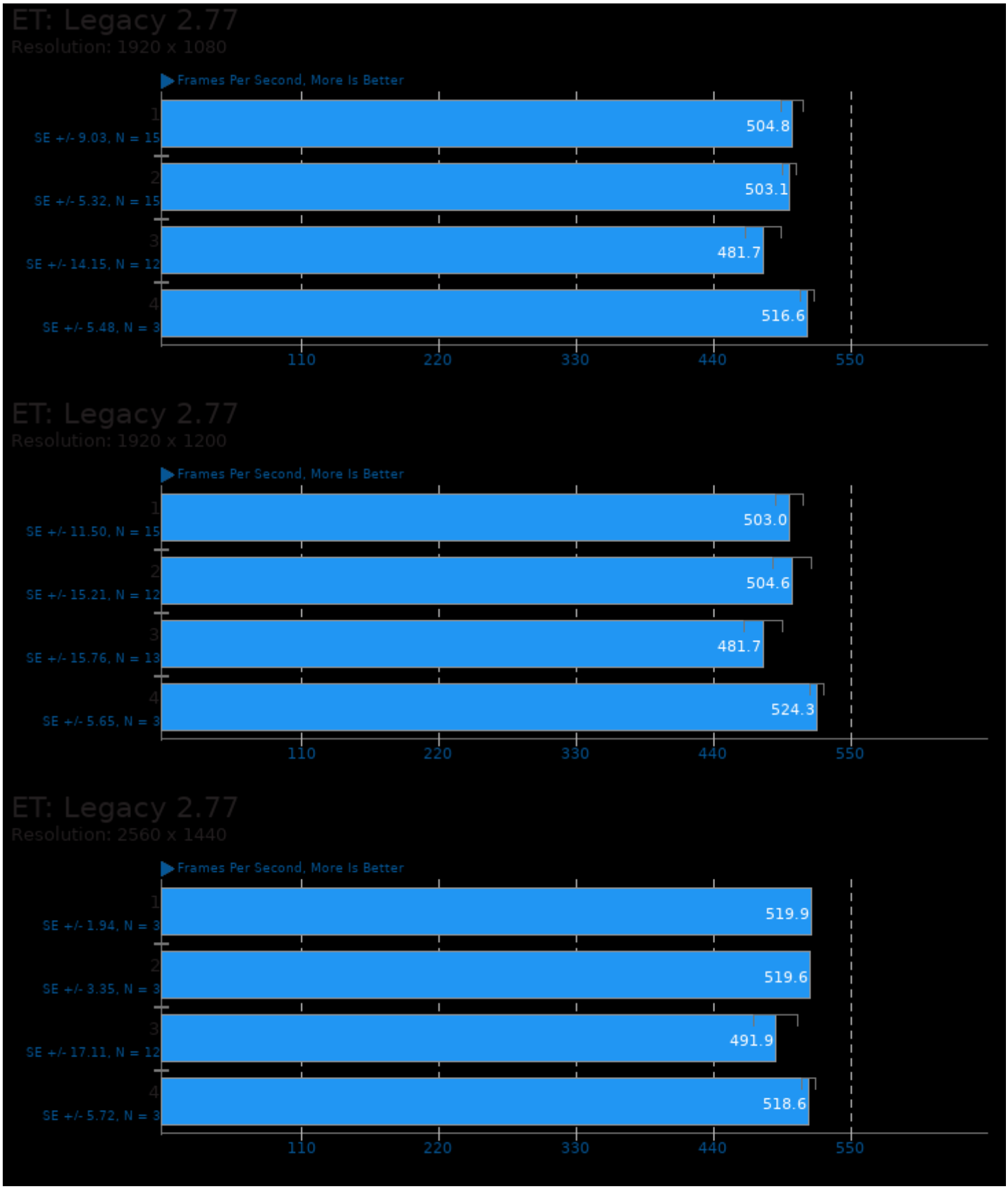
4

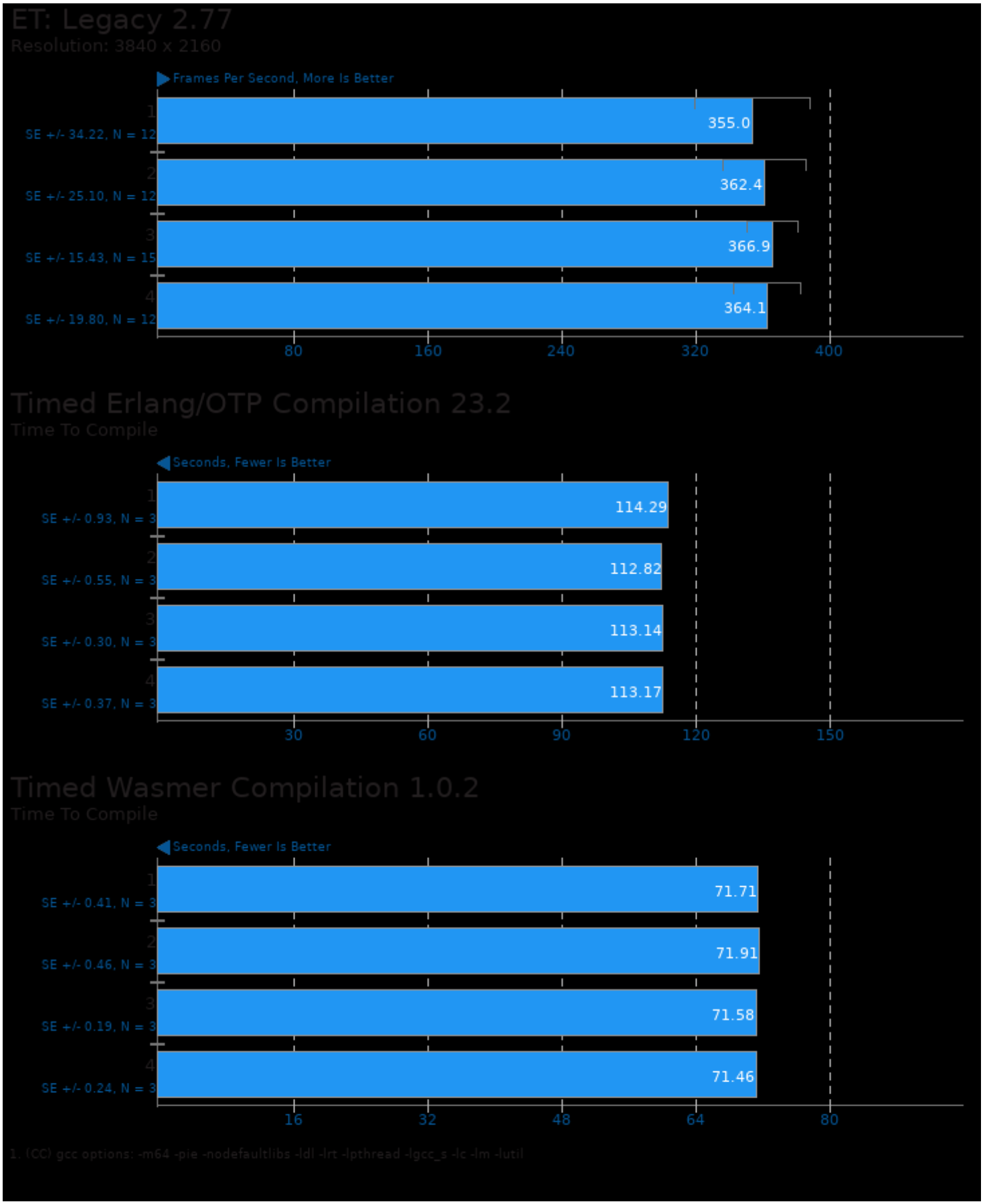
Processor: AMD Ryzen 9 3900XT 12-Core @ 3.80GHz (12 Cores / 24 Threads), Motherboard: MSI MEG X570 GODLIKE (MS-7C34) v1.0 (1.B3 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 500GB Seagate FireCuda 520 SSD ZP500GM30002, Graphics: AMD Radeon RX 56/64 8GB (1630/945MHz), Audio: AMD Vega 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek Device 2600 + Realtek Device 3000 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.11.0-rc1-phx (x86_64) 20201228, Desktop: GNOME Shell 3.38.1, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.1 (LLVM 11.0.0), Vulkan: 1.2.131, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

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,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/usr,hsa --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=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0x8701021
Graphics Notes: GLAMOR
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 IBPB: conditional STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

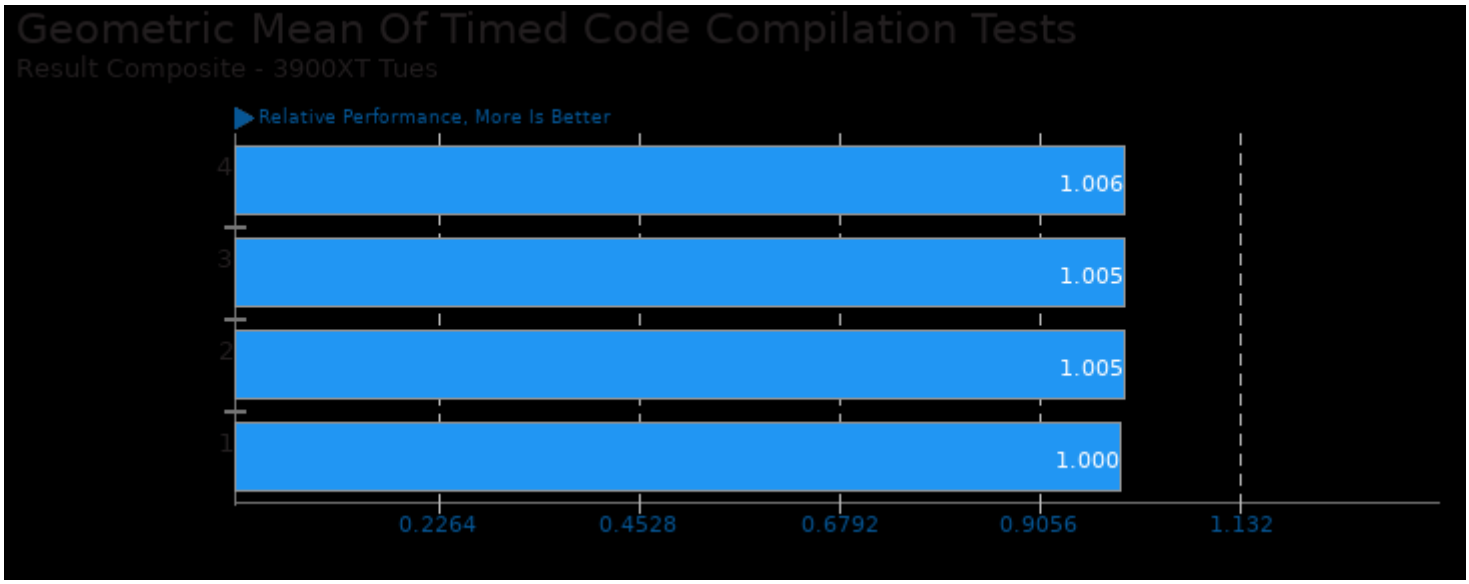
	1	2	3	4
ET: Legacy - 1920 x 1080 (FPS)	504.8	503.1	**481.7**	**516.6**
Normalized	97.72%	97.39%	93.24%	100%
Standard Deviation	6.9%	4.1%	10.2%	1.8%
ET: Legacy - 1920 x 1200 (FPS)	503.0	504.6	**481.7**	**524.3**
Normalized	95.94%	96.24%	91.87%	100%
Standard Deviation	8.9%	10.4%	11.8%	1.9%
ET: Legacy - 2560 x 1440 (FPS)	**519.9**	519.6	**491.9**	518.6
Normalized	100%	99.94%	94.61%	99.75%
Standard Deviation	0.6%	1.1%	12.1%	1.9%
ET: Legacy - 3840 x 2160 (FPS)	**355.0**	362.4	**366.9**	364.1
Normalized	96.76%	98.77%	100%	99.24%
Standard Deviation	33.4%	24%	16.3%	18.8%
Timed Erlang/OTP Compilation - Time To Compile (sec)	**114.287**	**112.815**	113.139	113.167
Normalized	98.71%	100%	99.71%	99.69%
Standard Deviation	1.4%	0.8%	0.5%	0.6%
Timed Wasmer Compilation - Time To Compile (sec)	71.712	**71.912**	71.578	**71.457**
Normalized	99.64%	99.37%	99.83%	100%
Standard Deviation	1%	1.1%	0.4%	0.6%


ET: Legacy 2.77
Resolution: 1920 x 1080
Frames Per Second, More Is Better
1
SE +/- 9.03, N = 15
504.8
2
SE +/- 5.32, N = 15
503.1
3
SE +/- 14.15, N = 12
481.7
4
SE +/- 5.48, N = 3
516.6
110
220
330
440
550
ET: Legacy 2.77
Resolution: 1920 x 1200
Frames Per Second, More Is Better
1
SE +/- 11.50, N = 15
503.0
2
SE +/- 15.21, N = 12
504.6
3
SE +/- 15.76, N = 13
481.7
4
SE +/- 5.65, N = 3
524.3
110
220
330
440
550
ET: Legacy 2.77
Resolution: 2560 x 1440
Frames Per Second, More Is Better
1
SE +/- 1.94, N = 3
519.9
2
SE +/- 3.35, N = 3
519.6
3
SE +/- 17.11, N = 12
491.9
4
SE +/- 5.72, N = 3
518.6
110
220
330
440
550

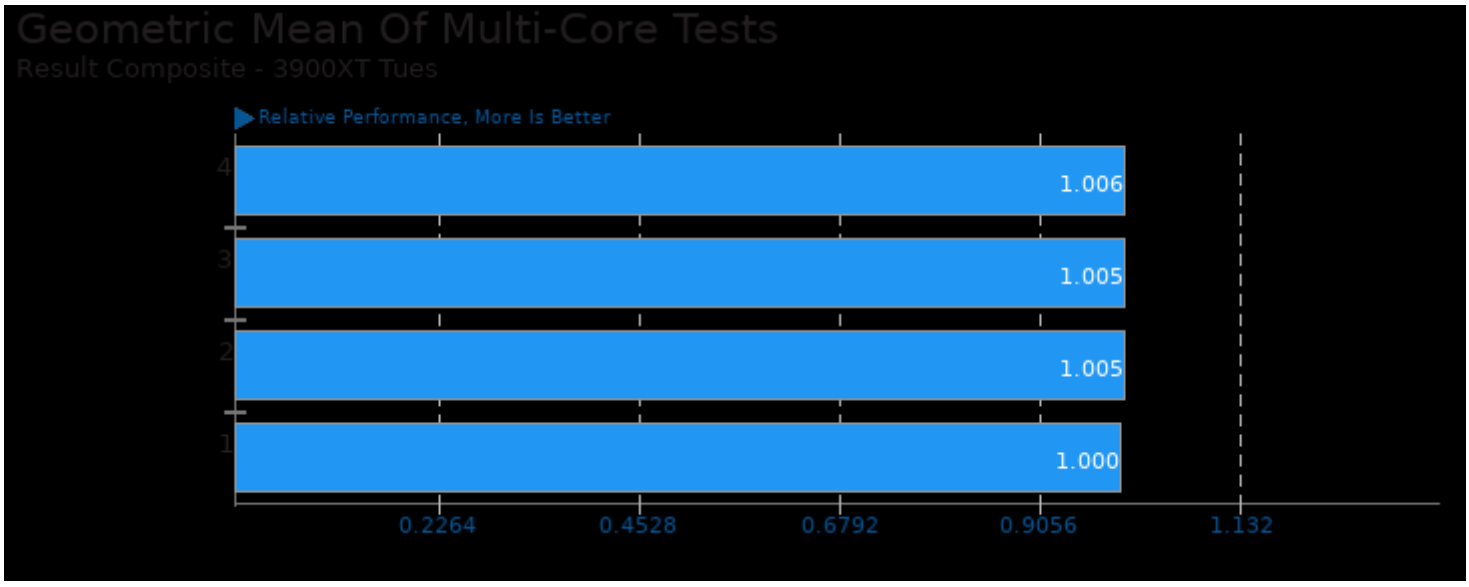

ET: Legacy 2.77
Resolution: 3840 x 2160
Frames Per Second, More Is Better
1
SE +/- 34.22, N = 12
355.0
2
SE +/- 25.10, N = 12
362.4
3
SE +/- 15.43, N = 15
366.9
4
SE +/- 19.80, N = 12
364.1
80
160
240
320
400
Timed Erlang/OTP Compilation 23.2
Time To Compile
Seconds, Fewer Is Better
1
SE +/- 0.93, N = 3
114.29
2
SE +/- 0.55, N = 3
112.82
3
SE +/- 0.30, N = 3
113.14
4
SE +/- 0.37, N = 3
113.17
30
60
90
120
150
Timed Wasmer Compilation 1.0.2
Time To Compile
Seconds, Fewer Is Better
1
SE +/- 0.41, N = 3
71.71
2
SE +/- 0.46, N = 3
71.91
3
SE +/- 0.19, N = 3
71.58
4
SE +/- 0.24, N = 3
71.46
16
32
48
64
80
1. (CC) gcc options: -m64 -pie -nodefaultlibs -ldl -lrt -lpthread -lgcc_s -lc -lm -lutil

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

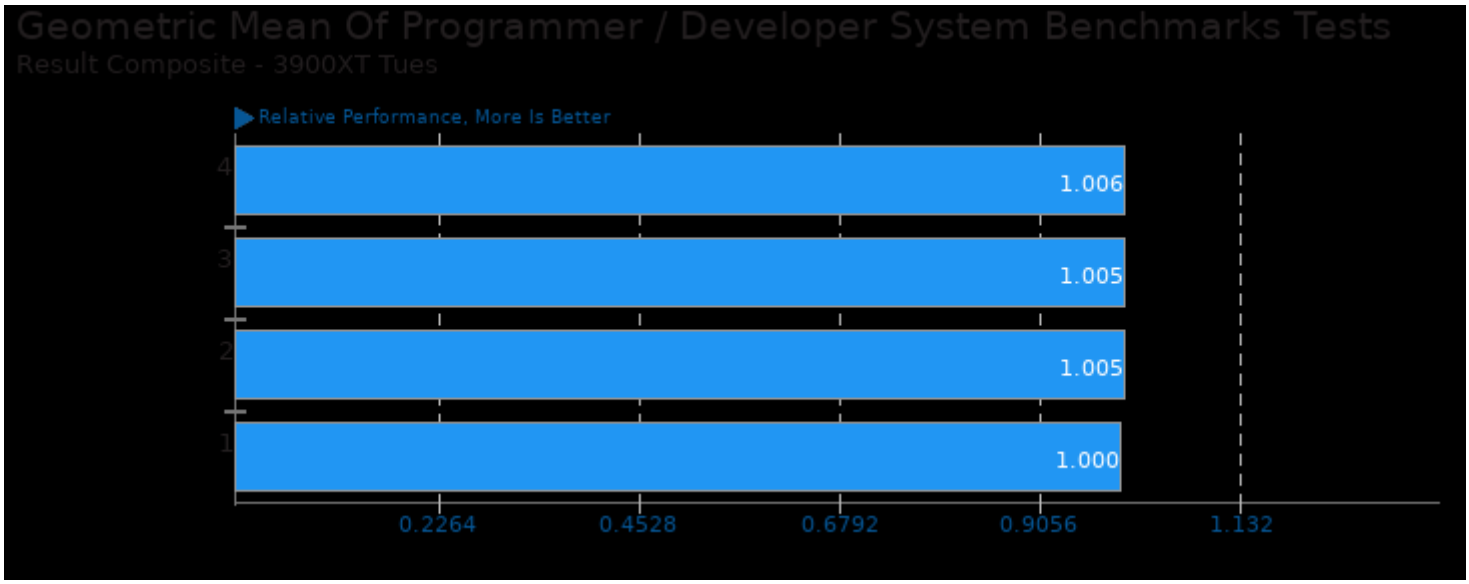


Geometric mean based upon tests: pts/build-erlang and pts/build-wasmer



Geometric mean based upon tests: pts/build-erlang and pts/build-wasmer

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Geometric mean based upon tests: pts/build-erlang and pts/build-wasmer

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 10:56.