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xps13-2020

Sys76 Lemur Pro vs XPS 13 7390

Test Systems:

xps13-compilation

Processor: Intel Core i7-10710U @ 4.70GHz (6 Cores / 12 Threads), Motherboard: Dell 0377MH (1.1.3 BIOS), Chipset: Intel Device 02ef, Memory: 2 x 8192 MB LPDDR3-2133MT/s H9CCNNNCLGALAR-NVD, Disk: KXG60ZNV1T02 NVMe TOSHIBA 1024GB, Graphics: i915drmfb (1150MHz), Audio: Realtek ALC3271, Network: Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.4.0-9-generic (x86_64), Desktop: GNOME Shell 3.34.3, Display Server: X Server 1.20.6, Display Driver: modesetting 1.20.6, Compiler: GCC 9.2.1 20191130, File-System: zfs, Screen Resolution: 3840x2160

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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none,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-build-config=bootstrap-lto-lean --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: intel_pstate powersave - CPU Microcode: 0xca
Python Notes: Python 2.7.17 + Python 3.7.6

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 + tsx_async_abort: Not affected

Sys76-Lemur-ProVs

Processor: Intel Core i7-10510U @ 4.90GHz (4 Cores / 8 Threads), Motherboard: System76 Lemur Pro (2020-04-18_179707d BIOS), Chipset: Intel Device 02ef, Memory: 40GB, Disk: Samsung SSD 970 EVO Plus 500GB, Graphics: Intel UHD (1150MHz), Audio: Realtek ALC293, Network: Intel-AC 9462

OS: Pop 20.04, Kernel: 5.4.0-7626-generic (x86_64), Desktop: GNOME Shell 3.36.1, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

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++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none,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: intel_pstate powersave - CPU Microcode: 0xca
Python Notes: + Python 3.8.2
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 + tsx_async_abort: Not affected

xps13__vs__lemur_pro

Processor: Intel Core i7-1065G7 @ 3.90GHz (4 Cores / 8 Threads), Motherboard: Dell 0WX9VX (1.0.6 BIOS), Chipset: Intel Device 34ef, Memory: 32GB, Disk: PC611 NVMe SK hynix 512GB, Graphics: Intel Iris Plus G7 3GB (1100MHz), Audio: Realtek ALC289, Network: Intel Killer Wi-Fi 6 AX1650i 160MHz

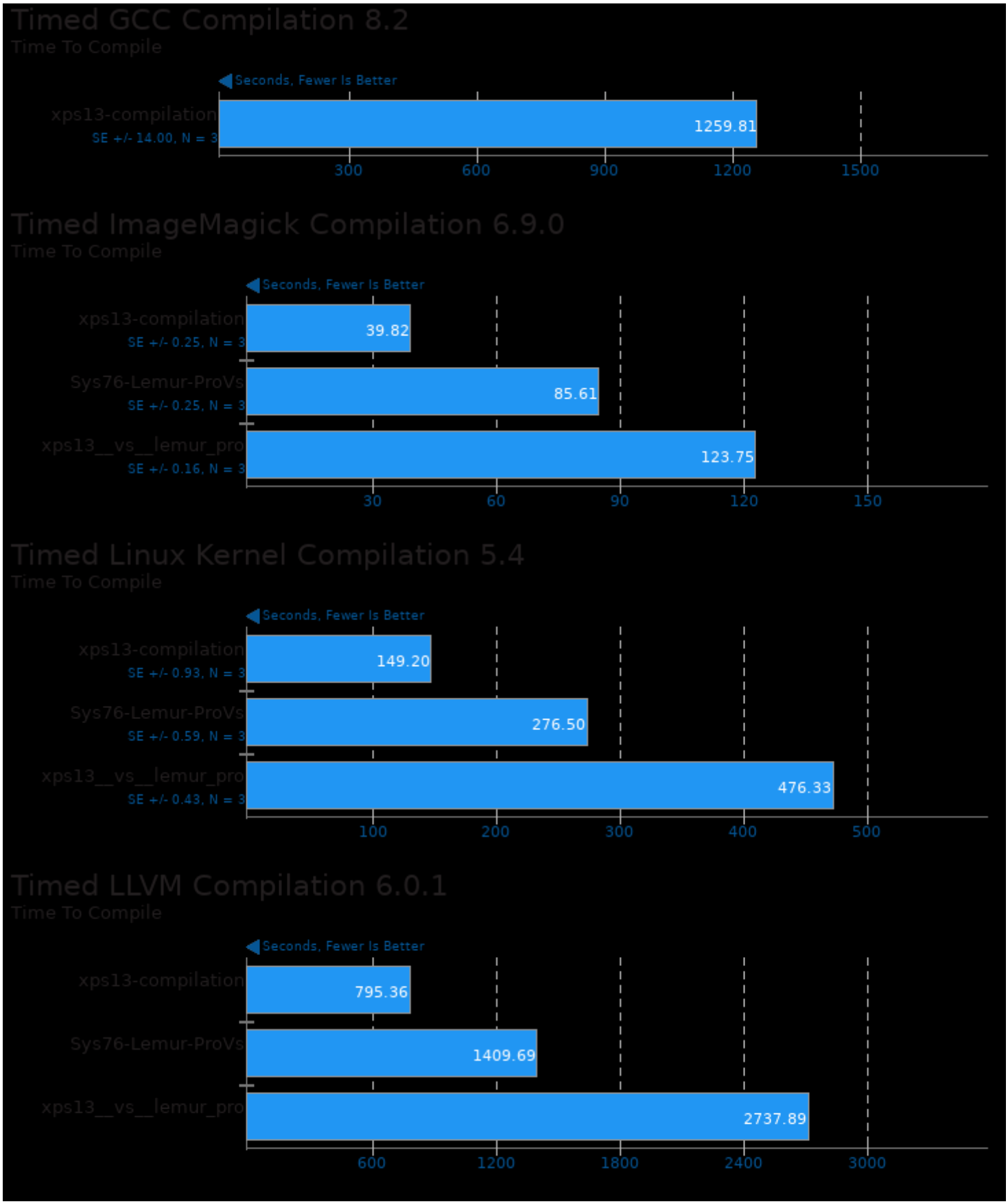
OS: Ubuntu 20.04, Kernel: 5.4.0-33-generic (x86_64), Desktop: GNOME Shell 3.36.2, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.0.4, Compiler: GCC 9.3.0, File-System: zfs, Screen Resolution: 3840x2400

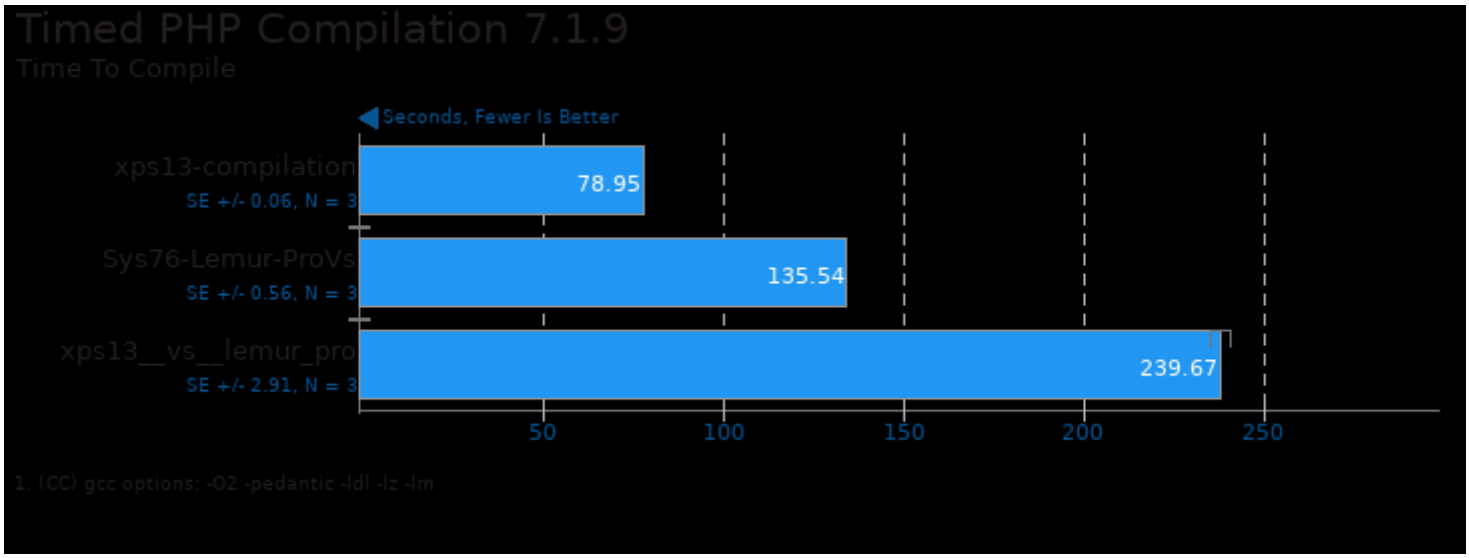
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none,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: intel_pstate performance - CPU Microcode: 0x56
Python Notes: Python 3.8.2
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 + tsx_async_abort: Not affected

	xps13-compilation	Sys76-Lemur-ProVs	xps13__vs__lemur_p
Timed GCC Compilation - Time To Compile (sec)	1260		
Standard Deviation	1.9%		
Timed ImageMagick Compilation - Time To Compile (sec)	**39.817**	85.613	**123.748**
Normalized	100%	46.51%	32.18%
Standard Deviation	1.1%	0.5%	0.2%

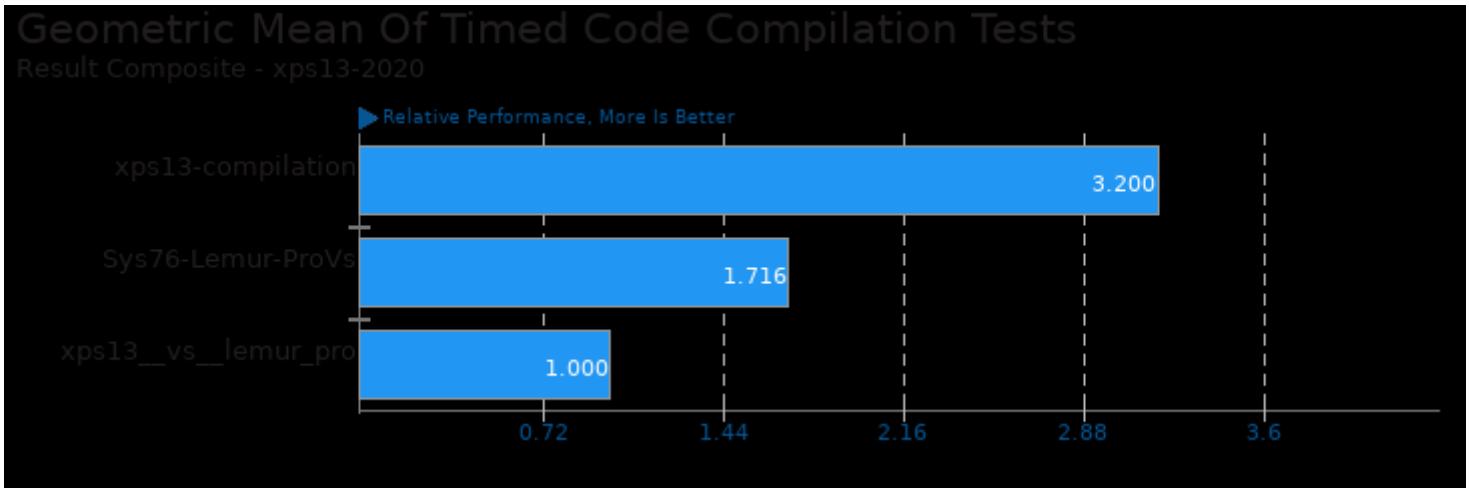
xps13-2020

Timed Linux Kernel Compilation - Time To Compile (sec)	**149.197**	276.499	**476.326**
Normalized	100%	53.96%	31.32%
Standard Deviation	1.1%	0.4%	0.2%
Timed LLVM Compilation - Time To Compile (sec)	**795.355**	1410	**2738**
Normalized	100%	56.42%	29.05%
Timed PHP Compilation - Time To Compile (sec)	**78.952**	135.537	**239.674**
Normalized	100%	58.25%	32.94%
Standard Deviation	0.1%	0.7%	2.1%

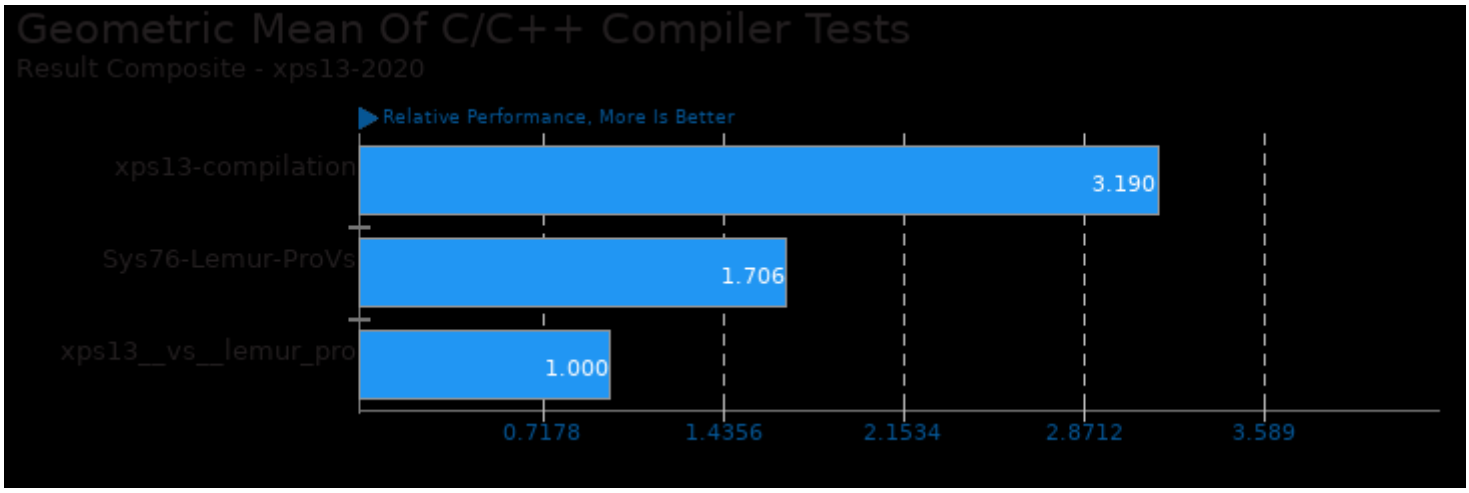

Timed GCC Compilation 8.2
Time To Compile
Seconds, Fewer Is Better
xps13-compilation
SE +/- 14.00, N = 3
1259.81
300
600
900
1200
1500
Timed ImageMagick Compilation 6.9.0
Time To Compile
Seconds, Fewer Is Better
xps13-compilation
SE +/- 0.25, N = 3
39.82
Sys76-Lemur-ProVs
SE +/- 0.25, N = 3
85.61
xps13__vs__lemur_pro
SE +/- 0.16, N = 3
123.75
30
60
90
120
150
Timed Linux Kernel Compilation 5.4
Time To Compile
Seconds, Fewer Is Better
xps13-compilation
SE +/- 0.93, N = 3
149.20
Sys76-Lemur-ProVs
SE +/- 0.59, N = 3
276.50
xps13__vs__lemur_pro
SE +/- 0.43, N = 3
476.33
100
200
300
400
500
Timed LLVM Compilation 6.0.1
Time To Compile
Seconds, Fewer Is Better
xps13-compilation
795.36
Sys76-Lemur-ProVs
1409.69
xps13__vs__lemur_pro
2737.89
600
1200
1800
2400
3000


Timed PHP Compilation 7.1.9
Time To Compile
Seconds, Fewer Is Better
xps13-compilation
SE +/- 0.06, N = 3
78.95
Sys76-Lemur-ProVs
SE +/- 0.56, N = 3
135.54
xps13__vs__lemur_pro
SE +/- 2.91, N = 3
239.67
50
100
150
200
250
1. (CC) gcc options: -O2 -pedantic -ldl -lz -lm

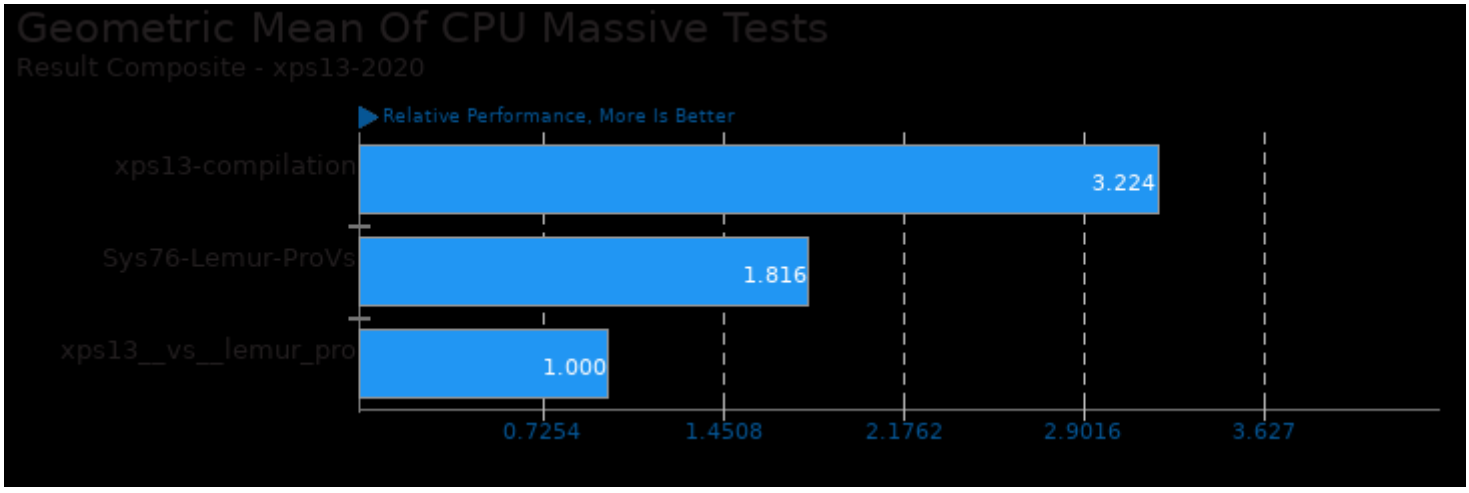
These geometric means are based upon test groupings / test suites for this result file.



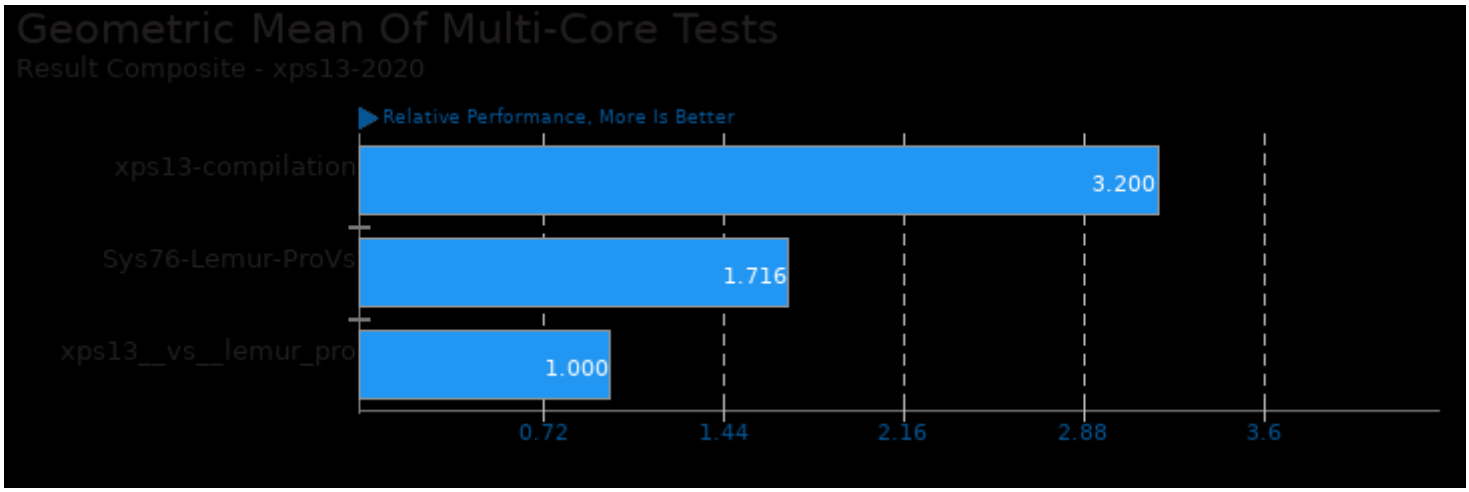
Geometric mean based upon tests: pts/build-php, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc and pts/build-llvm



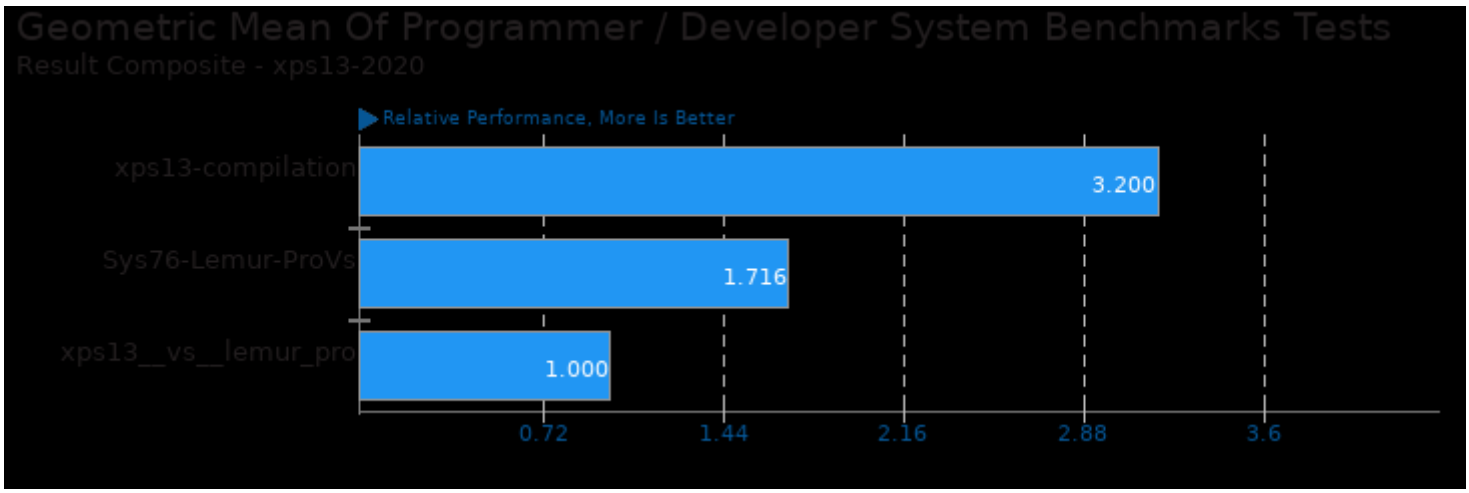
Geometric mean based upon tests: pts/build-php, pts/build-imagemagick and pts/build-llvm



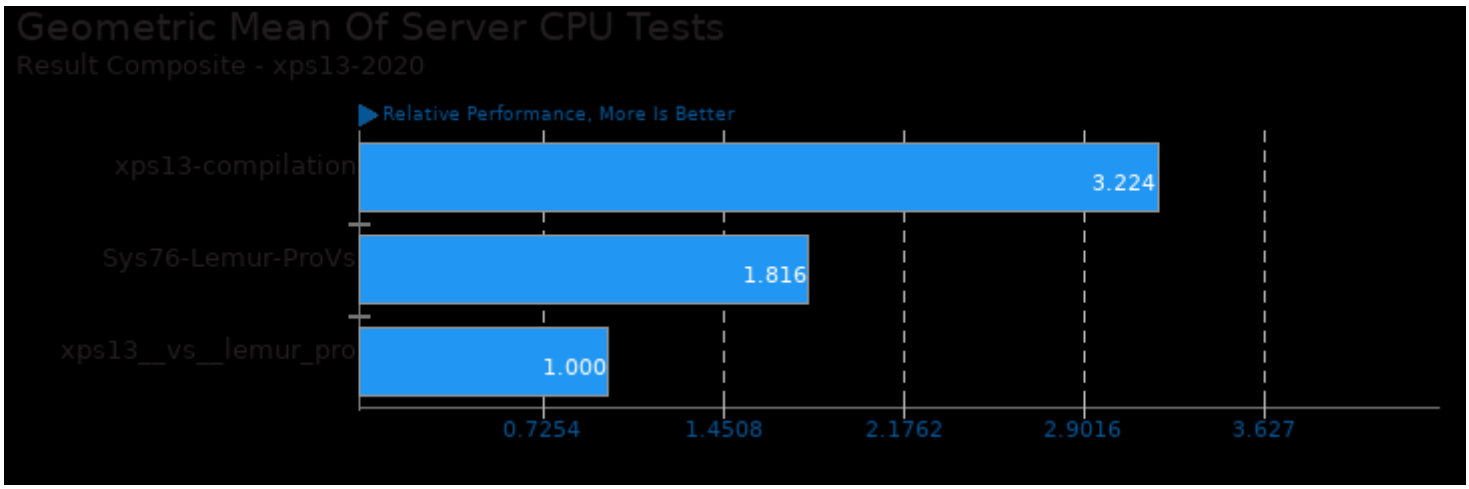
Geometric mean based upon tests: pts/build-gcc, pts/build-llvm, pts/build-linux-kernel and pts/build-php



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



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



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 Friday, 29 March 2024 04:21.