

www.phoronix-test-suite.com

new stuff

AMD Ryzen 9 5950X 16-Core testing with a ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3801 BIOS) and zink 12GB on Ubuntu 21.10 via the Phoronix Test Suite.

Automated Executive Summary

C had the most wins, coming in first place for 33% of the tests.

Based on the geometric mean of all complete results, the fastest (C) was 1.002x the speed of the slowest (A). B was 1x the speed of C and A was 0.998x the speed of B.

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

Left 4 Dead 2 (Resolution: 1920 x 1200 - Renderer: Vulkan) at 1.022x
Left 4 Dead 2 (Resolution: 1920 x 1080 - Renderer: OpenGL) at 1.019x
Left 4 Dead 2 (Resolution: 2560 x 1440 - Renderer: OpenGL) at 1.018x
Half-Life 2: Episode Two (Resolution: 1920 x 1080 - Renderer: OpenGL) at 1.017x
Left 4 Dead 2 (Resolution: 1920 x 1200 - Renderer: OpenGL) at 1.012x
Half-Life 2: Episode Two (Resolution: 2560 x 1440 - Renderer: OpenGL) at 1.01x
Left 4 Dead 2 (Resolution: 2560 x 1440 - Renderer: Vulkan) at 1.008x
Left 4 Dead 2 (Resolution: 1920 x 1080 - Renderer: Vulkan) at 1.008x
Left 4 Dead 2 (Resolution: 3840 x 2160 - Renderer: OpenGL) at 1.006x

Half-Life 2: Episode Two (Resolution: 1920 x 1200 - Renderer: OpenGL) at 1.005x.

Test Systems:

A

B

C

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3801 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB Sabrent Rocket 4.0 Plus + 2000GB, Graphics: zink 12GB (2855/1000MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 21.10, Kernel: 5.16.0-051600rc2daily20211128-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server 1.20.13 + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-add883b 2021-11-26 impish-oibaf-ppa) (LLVM 13.0.0 DRM 3.44 5.16.0-051600rc2daily20211128-generic), Vulkan: 1.2.199, Compiler: GCC 11.2.0 + Clang 13.0.0-2, File-System: ext4, Screen Resolution: 3840x2160

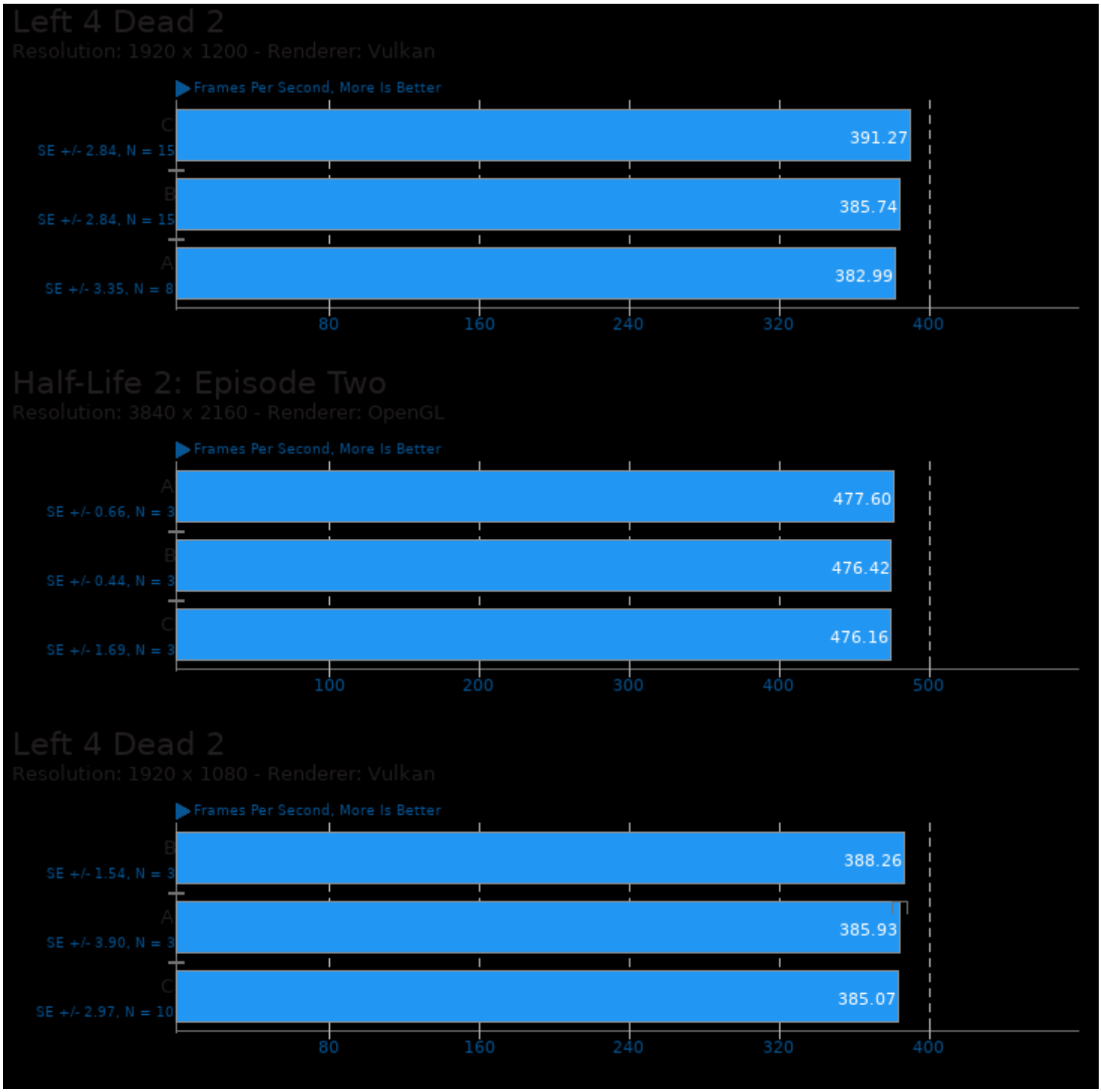
Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016
Graphics Notes: GLAMOR - BAR1 / Visible vRAM Size: 12272 MB
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: 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 Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	A	B	C
Left 4 Dead 2 - 1920 x 1200 - Vulkan (FPS)	**382.99**	385.74	**391.27**
Normalized	97.88%	98.59%	100%
Standard Deviation	2.5%	2.8%	2.8%
Half-Life 2: Episode Two - 3840 x 2160 - OpenGL (FPS)	**477.60**	476.42	**476.16**
Normalized	100%	99.75%	99.7%
Standard Deviation	0.2%	0.2%	0.6%
Left 4 Dead 2 - 1920 x 1080 - Vulkan (FPS)	385.93	**388.26**	**385.07**
Normalized	99.4%	100%	99.18%
Standard Deviation	1.7%	0.7%	2.4%
Half-Life 2: Episode Two - 2560 x 1440 - OpenGL (FPS)	517.34	**513.15**	**518.47**
Normalized	99.78%	98.97%	100%
Standard Deviation	0.7%	0.3%	0.7%

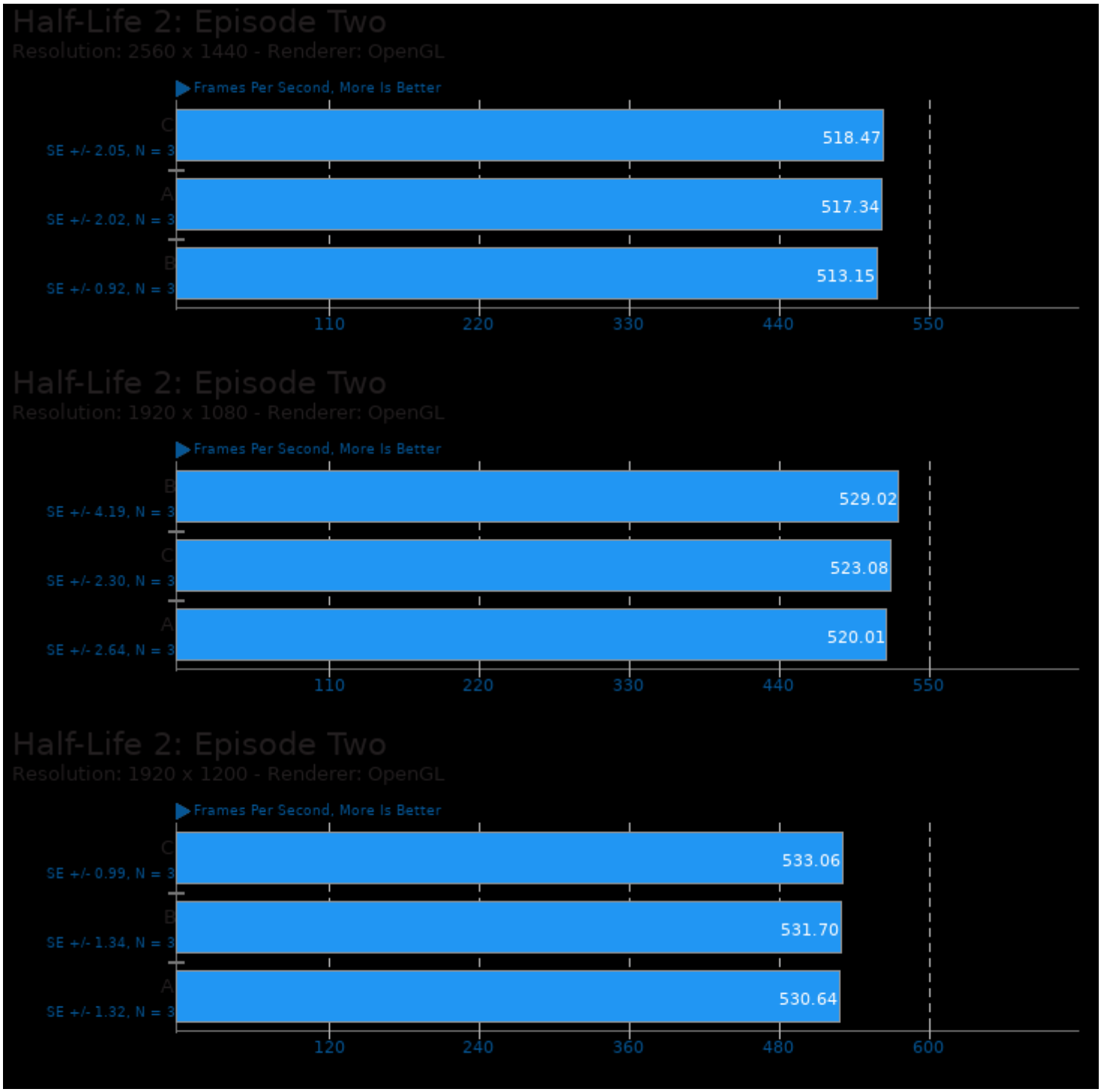
new stuff

Half-Life 2: Episode Two - 1920 x 1080 - OpenGL (FPS)	**520.01**	**529.02**	523.08
Normalized	98.3%	100%	98.88%
Standard Deviation	0.9%	1.4%	0.8%
Half-Life 2: Episode Two - 1920 x 1200 - OpenGL (FPS)	**530.64**	531.70	**533.06**
Normalized	99.55%	99.74%	100%
Standard Deviation	0.4%	0.4%	0.3%
Left 4 Dead 2 - 3840 x 2160 - OpenGL (FPS)	**288.29**	286.78	**286.68**
Normalized	100%	99.48%	99.44%
Standard Deviation	0.3%	0.5%	0.7%
Left 4 Dead 2 - 2560 x 1440 - OpenGL (FPS)	295.32	**297.01**	**291.75**
Normalized	99.43%	100%	98.23%
Standard Deviation	0.5%	1%	1.1%
Left 4 Dead 2 - 1920 x 1080 - OpenGL (FPS)	**291.90**	**297.34**	295.62
Normalized	98.17%	100%	99.42%
Standard Deviation	1.5%	0.8%	0.3%
Left 4 Dead 2 - 1920 x 1200 - OpenGL (FPS)	**299.27**	**295.82**	298.76
Normalized	100%	98.85%	99.83%
Standard Deviation	2%	1.2%	2%
Left 4 Dead 2 - 2560 x 1440 - Vulkan (FPS)	391.37	**390.72**	**393.96**
Normalized	99.34%	99.18%	100%
Standard Deviation	1.3%	2.1%	1.3%
Left 4 Dead 2 - 3840 x 2160 - Vulkan (FPS)	**325.73**	325.04	**324.85**
Normalized	100%	99.79%	99.73%
Standard Deviation	0.3%	0.3%	0.3%

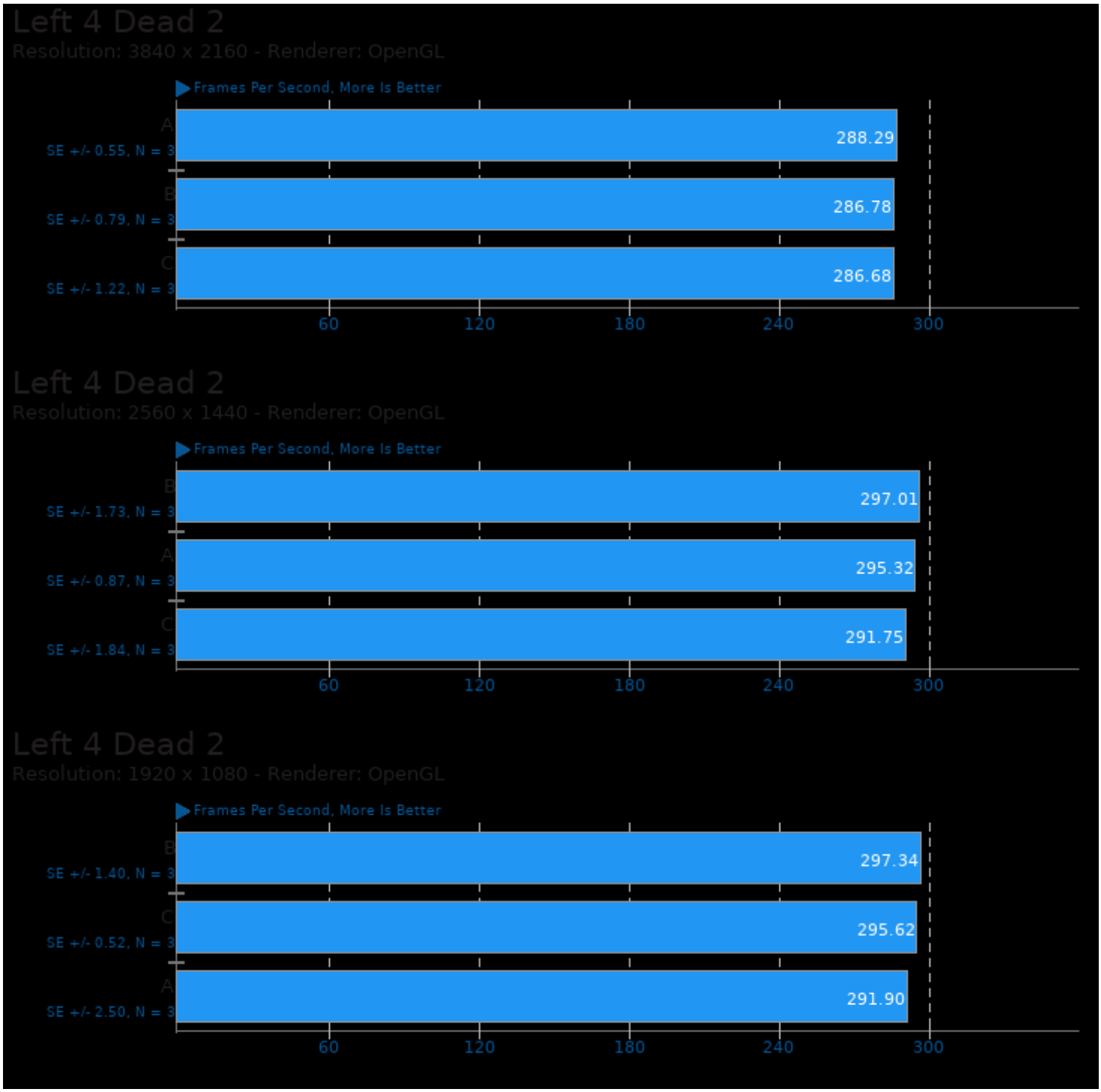
new stuff

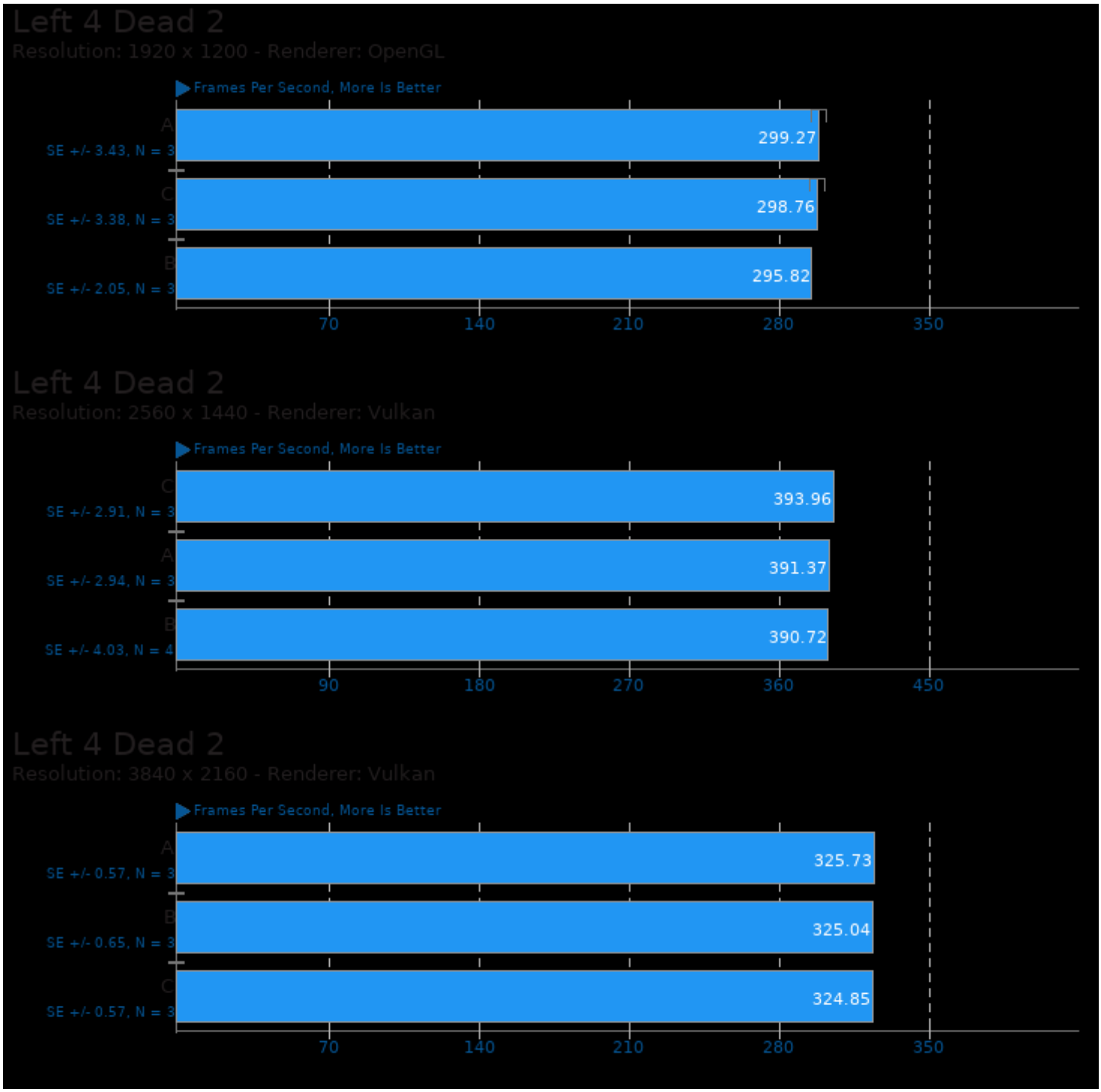

Left 4 Dead 2
Resolution: 1920 x 1200 - Renderer: Vulkan
Frames Per Second, More Is Better
C
SE +/- 2.84, N = 15
391.27
B
SE +/- 2.84, N = 15
385.74
A
SE +/- 3.35, N = 8
382.99
80
160
240
320
400
Half-Life 2: Episode Two
Resolution: 3840 x 2160 - Renderer: OpenGL
Frames Per Second, More Is Better
A
SE +/- 0.66, N = 3
477.60
B
SE +/- 0.44, N = 3
476.42
C
SE +/- 1.69, N = 3
476.16
100
200
300
400
500
Left 4 Dead 2
Resolution: 1920 x 1080 - Renderer: Vulkan
Frames Per Second, More Is Better
B
SE +/- 1.54, N = 3
388.26
A
SE +/- 3.90, N = 3
385.93
C
SE +/- 2.97, N = 10
385.07
80
160
240
320
400

new stuff


Half-Life 2: Episode Two
Resolution: 2560 x 1440 - Renderer: OpenGL
Frames Per Second, More Is Better
C
SE +/- 2.05, N = 3
518.47
A
SE +/- 2.02, N = 3
517.34
B
SE +/- 0.92, N = 3
513.15
110
220
330
440
550
Half-Life 2: Episode Two
Resolution: 1920 x 1080 - Renderer: OpenGL
Frames Per Second, More Is Better
B
SE +/- 4.19, N = 3
529.02
C
SE +/- 2.30, N = 3
523.08
A
SE +/- 2.64, N = 3
520.01
110
220
330
440
550
Half-Life 2: Episode Two
Resolution: 1920 x 1200 - Renderer: OpenGL
Frames Per Second, More Is Better
C
SE +/- 0.99, N = 3
533.06
B
SE +/- 1.34, N = 3
531.70
A
SE +/- 1.32, N = 3
530.64
120
240
360
480
600

new stuff


Left 4 Dead 2
Resolution: 3840 x 2160 - Renderer: OpenGL
Frames Per Second, More Is Better
A
SE +/- 0.55, N = 3
288.29
B
SE +/- 0.79, N = 3
286.78
C
SE +/- 1.22, N = 3
286.68
60
120
180
240
300
Left 4 Dead 2
Resolution: 2560 x 1440 - Renderer: OpenGL
Frames Per Second, More Is Better
B
SE +/- 1.73, N = 3
297.01
A
SE +/- 0.87, N = 3
295.32
C
SE +/- 1.84, N = 3
291.75
60
120
180
240
300
Left 4 Dead 2
Resolution: 1920 x 1080 - Renderer: OpenGL
Frames Per Second, More Is Better
B
SE +/- 1.40, N = 3
297.34
C
SE +/- 0.52, N = 3
295.62
A
SE +/- 2.50, N = 3
291.90
60
120
180
240
300


Left 4 Dead 2
Resolution: 1920 x 1200 - Renderer: OpenGL
Frames Per Second, More Is Better
A
SE +/- 3.43, N = 3
299.27
C
SE +/- 3.38, N = 3
298.76
B
SE +/- 2.05, N = 3
295.82
70
140
210
280
350
Left 4 Dead 2
Resolution: 2560 x 1440 - Renderer: Vulkan
Frames Per Second, More Is Better
C
SE +/- 2.91, N = 3
393.96
A
SE +/- 2.94, N = 3
391.37
B
SE +/- 4.03, N = 4
390.72
90
180
270
360
450
Left 4 Dead 2
Resolution: 3840 x 2160 - Renderer: Vulkan
Frames Per Second, More Is Better
A
SE +/- 0.57, N = 3
325.73
B
SE +/- 0.65, N = 3
325.04
C
SE +/- 0.57, N = 3
324.85
70
140
210
280
350

new stuff

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



Geometric mean based upon tests: pts/portal2, pts/l4d2 and pts/hl2-ep2

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 04:06.