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Linux 4.15 Radeon Vulkan OpenGL Testing

Intel Core i7-8700K testing with a ASUS PRIME Z370-A and AMD Radeon RX Vega 8192MB on Ubuntu 16.04 via the Phoronix Test Suite.

Automated Executive Summary

Post had the most wins, coming in first place for 63% of the tests.

Based on the geometric mean of all complete results, the fastest (Post) was 1.007x the speed of the slowest (Pre).

Test Systems:

Pre

Processor: Intel Core i7-8700K @ 4.70GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A, Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

OS: Ubuntu 16.04, Kernel: 4.15.0-041500rc5-generic (x86_64) 20171224, Desktop: Unity 7.4.0, Display Driver: amdgpu 1.3.0, OpenGL: 4.5 Mesa 17.4.0-devel- padoka PPA (LLVM 6.0.0), Vulkan: 1.0.42, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 3840x2160

Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: GLAMOR

Post

Processor: Intel Core i7-8700K @ 4.70GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A, Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: Realtek ALC1220, Monitor: DELL P2415Q, Network: Intel Connection

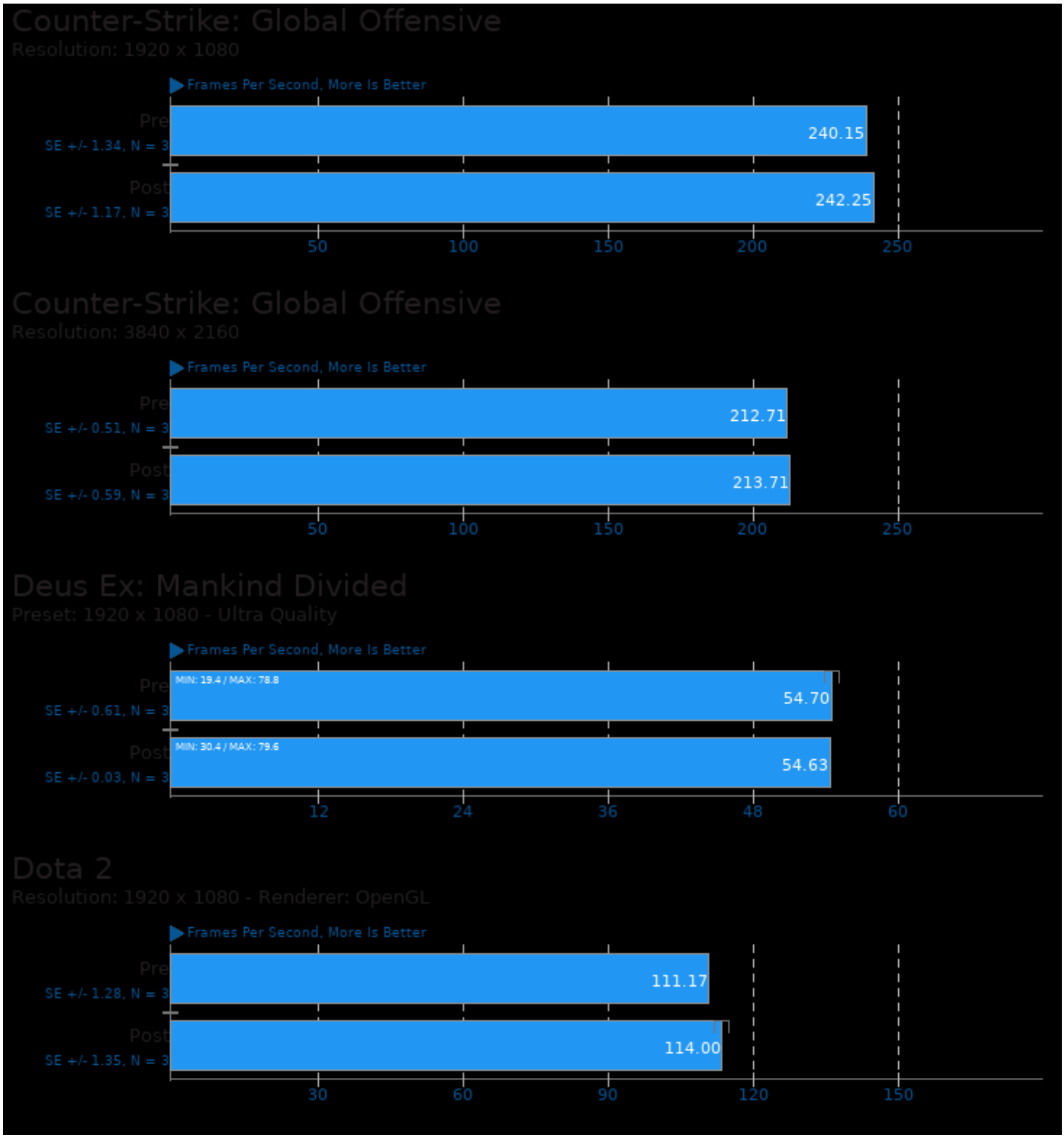
OS: Ubuntu 16.04, Kernel: 4.15.0-999-generic (x86_64) 20171231, Desktop: Unity 7.4.0, Display Driver: amdgpu 1.3.0, OpenGL: 4.5 Mesa 17.4.0-devel- padoka PPA (LLVM 6.0.0), Vulkan: 1.0.42, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 3840x2160

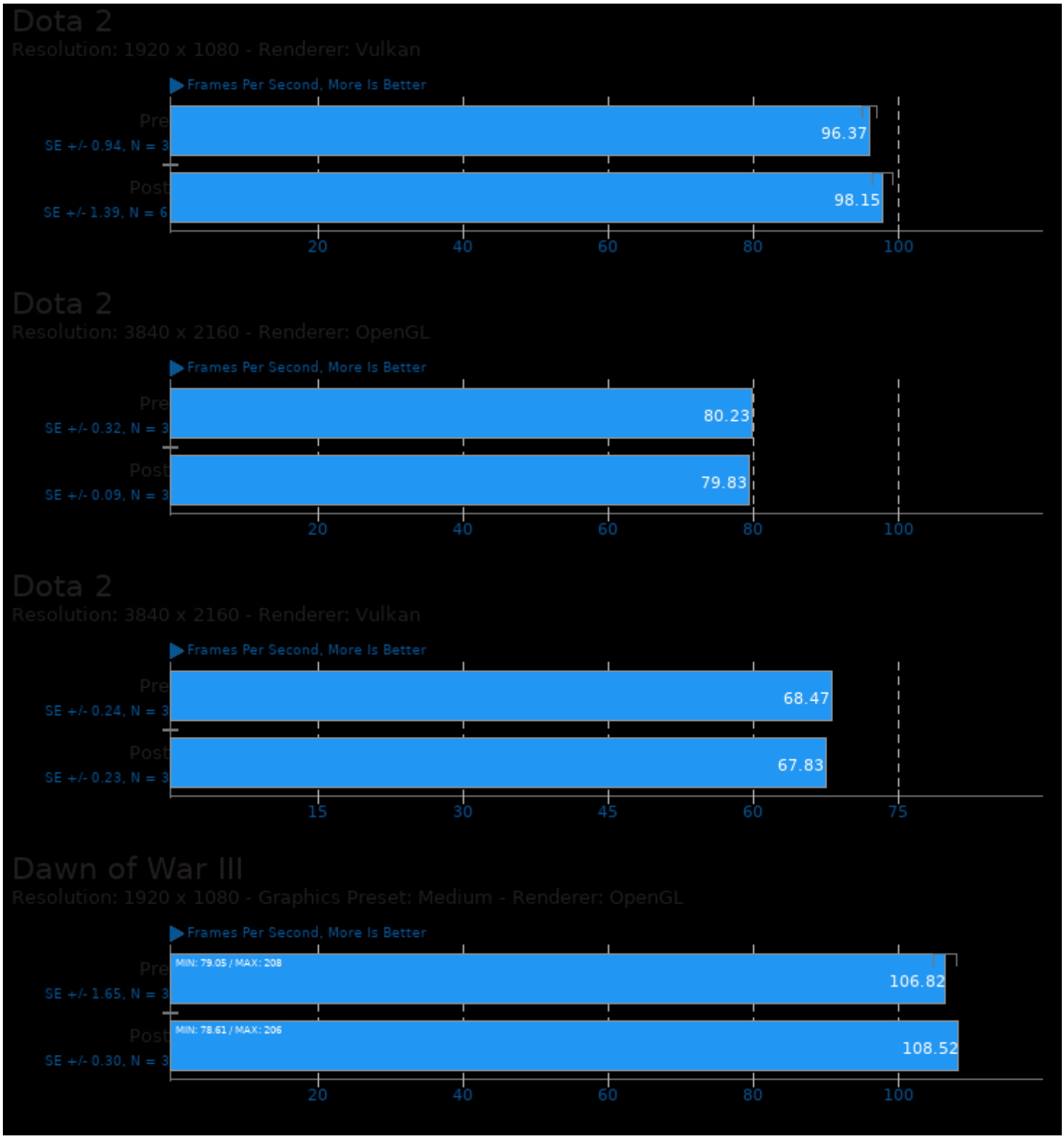
Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: GLAMOR

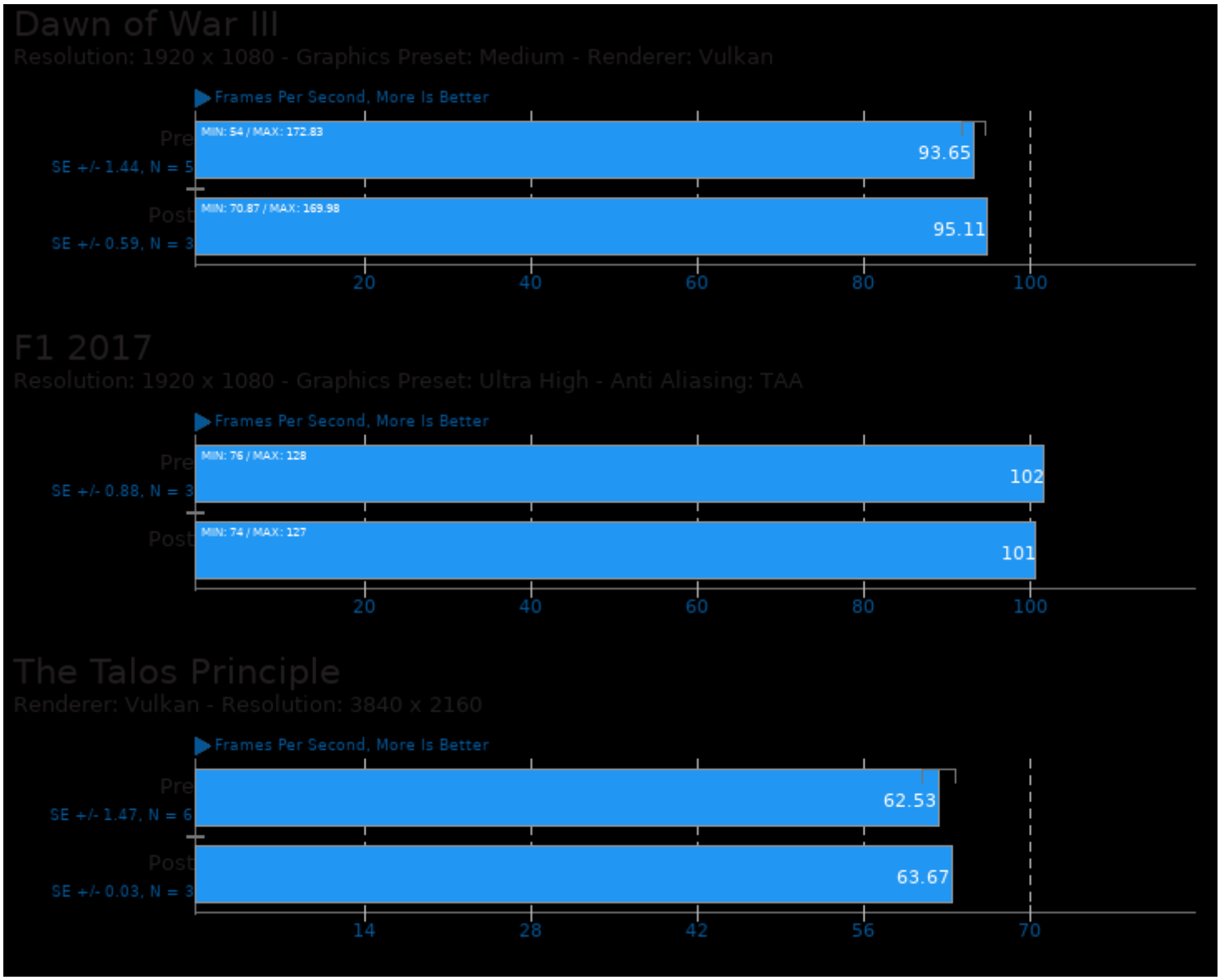
	Pre	Post
Counter-Strike: Global Offensive - 1920 x 1080 (FPS)	**240.15**	**242.25**
Normalized	99.13%	100%
Standard Deviation	1%	0.8%
Counter-Strike: Global Offensive - 3840 x 2160 (FPS)	**212.71**	**213.71**
Normalized	99.53%	100%
Standard Deviation	0.4%	0.5%
Deus Ex: Mankind Divided - 1920 x 1080 - Ultra Quality (FPS)	**54.70**	**54.63**
Normalized	100%	99.87%
Standard Deviation	1.9%	0.1%
Dota 2 - 1920 x 1080 - OpenGL (FPS)	**111.17**	**114.00**
Normalized	97.52%	100%
Standard Deviation	2%	2.1%
Dota 2 - 1920 x 1080 - Vulkan (FPS)	**96.37**	**98.15**
Normalized	98.19%	100%
Standard Deviation	1.7%	3.5%
Dota 2 - 3840 x 2160 - OpenGL (FPS)	**80.23**	**79.83**
Normalized	100%	99.5%
Standard Deviation	0.7%	0.2%
Dota 2 - 3840 x 2160 - Vulkan (FPS)	**68.47**	**67.83**
Normalized	100%	99.07%
Standard Deviation	0.6%	0.6%
Dawn of War III - 1920 x 1080 - Medium - OpenGL	**106.82**	**108.52**
Normalized	98.43%	100%
Standard Deviation	2.7%	0.5%
Dawn of War III - 1920 x 1080 - Medium - Vulkan (FPS)	**93.65**	**95.11**
Normalized	98.46%	100%
Standard Deviation	3.4%	1.1%
F1 2017 - 1920 x 1080 - Ultra High - TAA (FPS)	**102**	**101**

Linux 4.15 Radeon Vulkan OpenGL Testing

Normalized	100%	99.02%
Standard Deviation	1.5%	
The Talos Principle - Vulkan - 3840 x 2160 (FPS)	**62.53**	**63.67**
Normalized	98.21%	100%
Standard Deviation	5.7%	0.1%

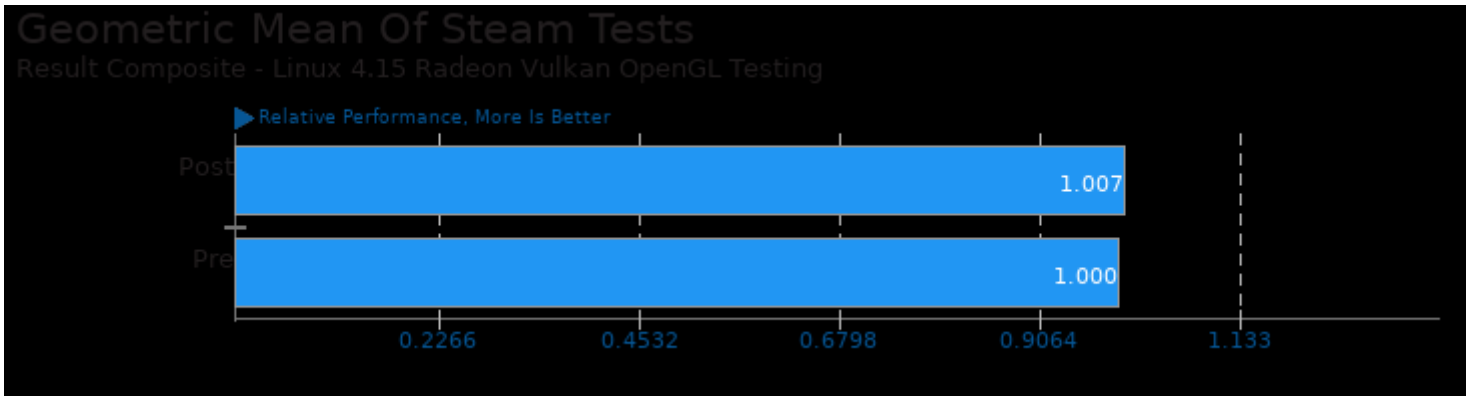

Counter-Strike: Global Offensive
Resolution: 1920 x 1080
Frames Per Second, More Is Better
Pre
SE +/- 1.34, N = 3
240.15
Post
SE +/- 1.17, N = 3
242.25
50
100
150
200
250
Counter-Strike: Global Offensive
Resolution: 3840 x 2160
Frames Per Second, More Is Better
Pre
SE +/- 0.51, N = 3
212.71
Post
SE +/- 0.59, N = 3
213.71
50
100
150
200
250
Deus Ex: Mankind Divided
Preset: 1920 x 1080 - Ultra Quality
Frames Per Second, More Is Better
Pre
SE +/- 0.61, N = 3
MIN: 19.4 / MAX: 78.8
54.70
Post
SE +/- 0.03, N = 3
MIN: 30.4 / MAX: 79.6
54.63
12
24
36
48
60
Dota 2
Resolution: 1920 x 1080 - Renderer: OpenGL
Frames Per Second, More Is Better
Pre
SE +/- 1.28, N = 3
111.17
Post
SE +/- 1.35, N = 3
114.00
30
60
90
120
150


Dota 2
Resolution: 1920 x 1080 - Renderer: Vulkan
Frames Per Second, More Is Better
Pre
SE +/- 0.94, N = 3
96.37
Post
SE +/- 1.39, N = 6
98.15
20
40
60
80
100
Dota 2
Resolution: 3840 x 2160 - Renderer: OpenGL
Frames Per Second, More Is Better
Pre
SE +/- 0.32, N = 3
80.23
Post
SE +/- 0.09, N = 3
79.83
20
40
60
80
100
Dota 2
Resolution: 3840 x 2160 - Renderer: Vulkan
Frames Per Second, More Is Better
Pre
SE +/- 0.24, N = 3
68.47
Post
SE +/- 0.23, N = 3
67.83
15
30
45
60
75
Dawn of War III
Resolution: 1920 x 1080 - Graphics Preset: Medium - Renderer: OpenGL
Frames Per Second, More Is Better
Pre
SE +/- 1.65, N = 3
MIN: 79.05 / MAX: 208
106.82
Post
SE +/- 0.30, N = 3
MIN: 78.61 / MAX: 206
108.52
20
40
60
80
100


Dawn of War III
Resolution: 1920 x 1080 - Graphics Preset: Medium - Renderer: Vulkan
Frames Per Second, More Is Better
MIN: 54 / MAX: 172.83
93.65
SE +/- 1.44, N = 5
MIN: 70.87 / MAX: 169.98
95.11
SE +/- 0.59, N = 3
20
40
60
80
100
F1 2017
Resolution: 1920 x 1080 - Graphics Preset: Ultra High - Anti Aliasing: TAA
Frames Per Second, More Is Better
MIN: 76 / MAX: 128
102
SE +/- 0.88, N = 3
MIN: 74 / MAX: 127
101
20
40
60
80
100
The Talos Principle
Renderer: Vulkan - Resolution: 3840 x 2160
Frames Per Second, More Is Better
62.53
SE +/- 1.47, N = 6
63.67
SE +/- 0.03, N = 3
14
28
42
56
70

Linux 4.15 Radeon Vulkan OpenGL Testing

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



Geometric mean based upon tests: pts/csgo, pts/dota2, pts/dow3, pts/f12017, pts/talos-principle and pts/deus-exmd

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 10:19.