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Civ VI Linux

AMD Ryzen 9 5950X 16-Core testing with a ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3202 BIOS) and NVIDIA GeForce RTX 3080 10GB on Ubuntu 20.10 via the Phoronix Test Suite.

Automated Executive Summary

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

Based on the geometric mean of all complete results, the fastest (2) was 1.128x the speed of the slowest (4). 3 was 0.946x the speed of 2, 1 was 0.991x the speed of 3, 4 was 0.945x the speed of 1.

Test Systems:

1

2

3

4

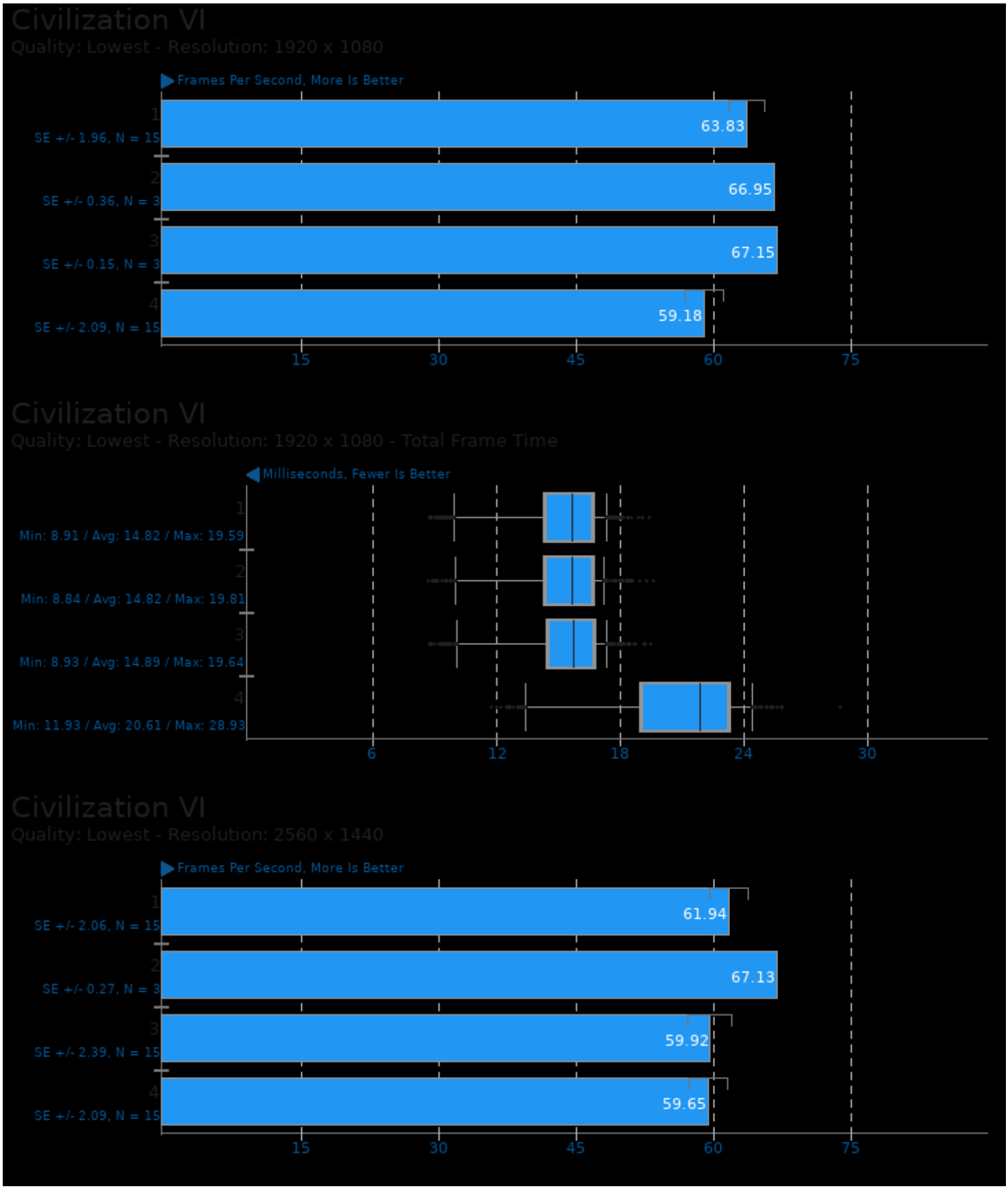
Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (3202 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: NVIDIA GeForce RTX 3080 10GB, Audio: NVIDIA Device 1aef, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.8.0-41-generic (x86_64), Desktop: GNOME Shell 3.38.2, Display Server: X Server 1.20.9, Display Driver: NVIDIA 460.39, OpenGL: 4.6.0, OpenCL: OpenCL 1.2 CUDA 11.2.136, Vulkan: 1.2.155, Compiler: GCC 10.2.0 + Clang 11.0.1-1~oibaf~g, File-System: ext4, Screen Resolution: 3840x2160

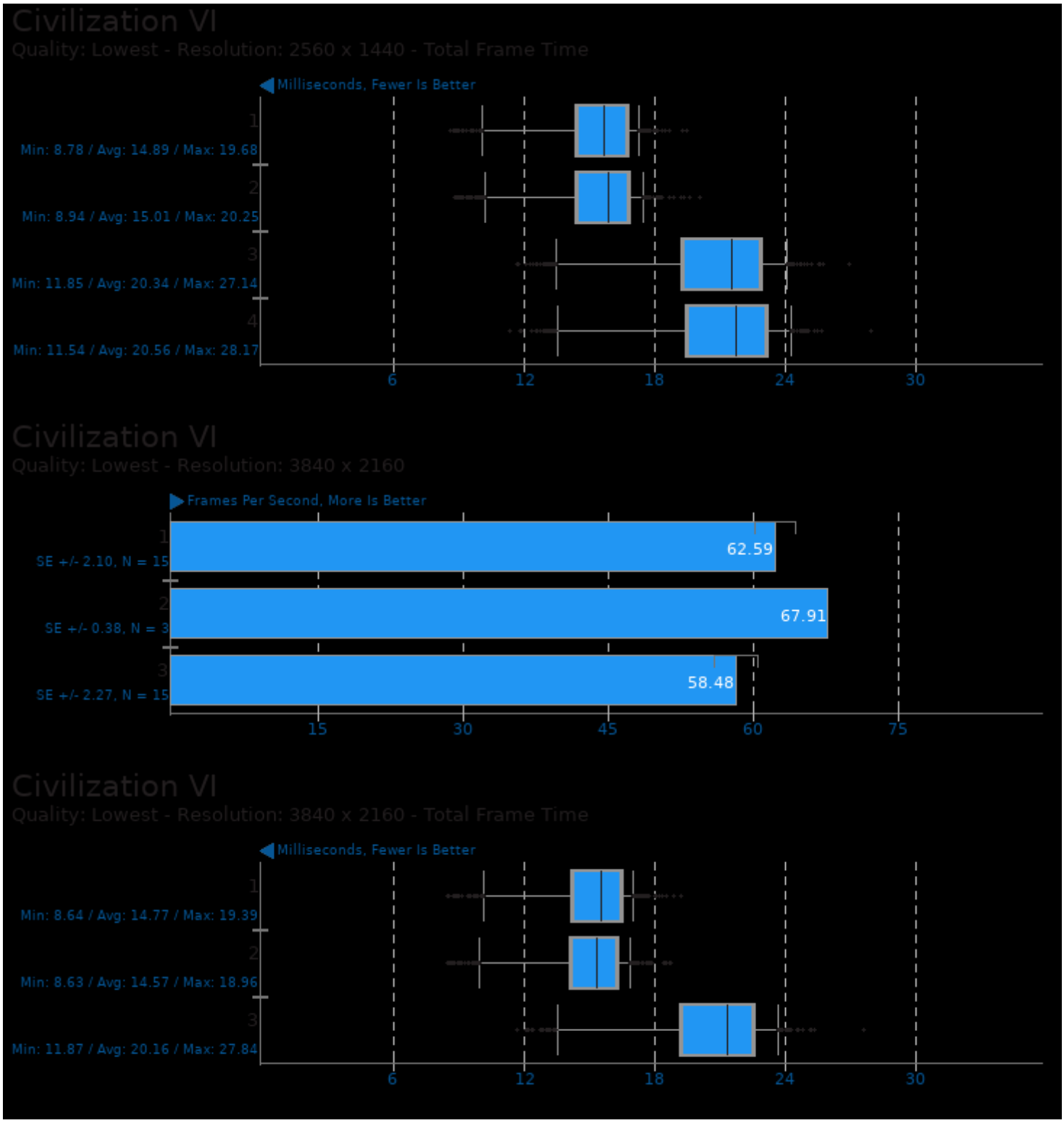
Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201009
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	1	2	3	4
Civilization VI - Lowest - 1920 x 1080 (FPS)	63.83	66.95	**67.15**	**59.18**
Normalized	95.06%	99.7%	100%	88.13%
Standard Deviation	11.9%	0.9%	0.4%	13.7%
Civilization VI - Lowest - 2560 x 1440 (FPS)	61.94	**67.13**	59.92	**59.65**
Normalized	92.27%	100%	89.26%	88.86%
Standard Deviation	12.9%	0.7%	15.4%	13.6%
Civilization VI - Lowest - 3840 x 2160 (FPS)	62.59	**67.91**	**58.48**	
Normalized	92.17%	100%	86.11%	
Standard Deviation	13%	1%	15.1%	
Civilization VI - Highest - 1920 x 1080 (FPS)	**46.83**	46.74	**46.35**	
Normalized	100%	99.81%	98.98%	
Standard Deviation	0.2%	1%	2.1%	
Civilization VI - Highest - 2560 x 1440 (FPS)	46.92	**46.86**	**47.15**	
Normalized	99.51%	99.38%	100%	
Standard Deviation	1.4%	1.1%	2.2%	
Civilization VI - Highest - 3840 x 2160 (FPS)	43.26	**44.06**	**43.18**	
Normalized	98.18%	100%	98%	
Standard Deviation	13.7%	12.3%	13.7%	

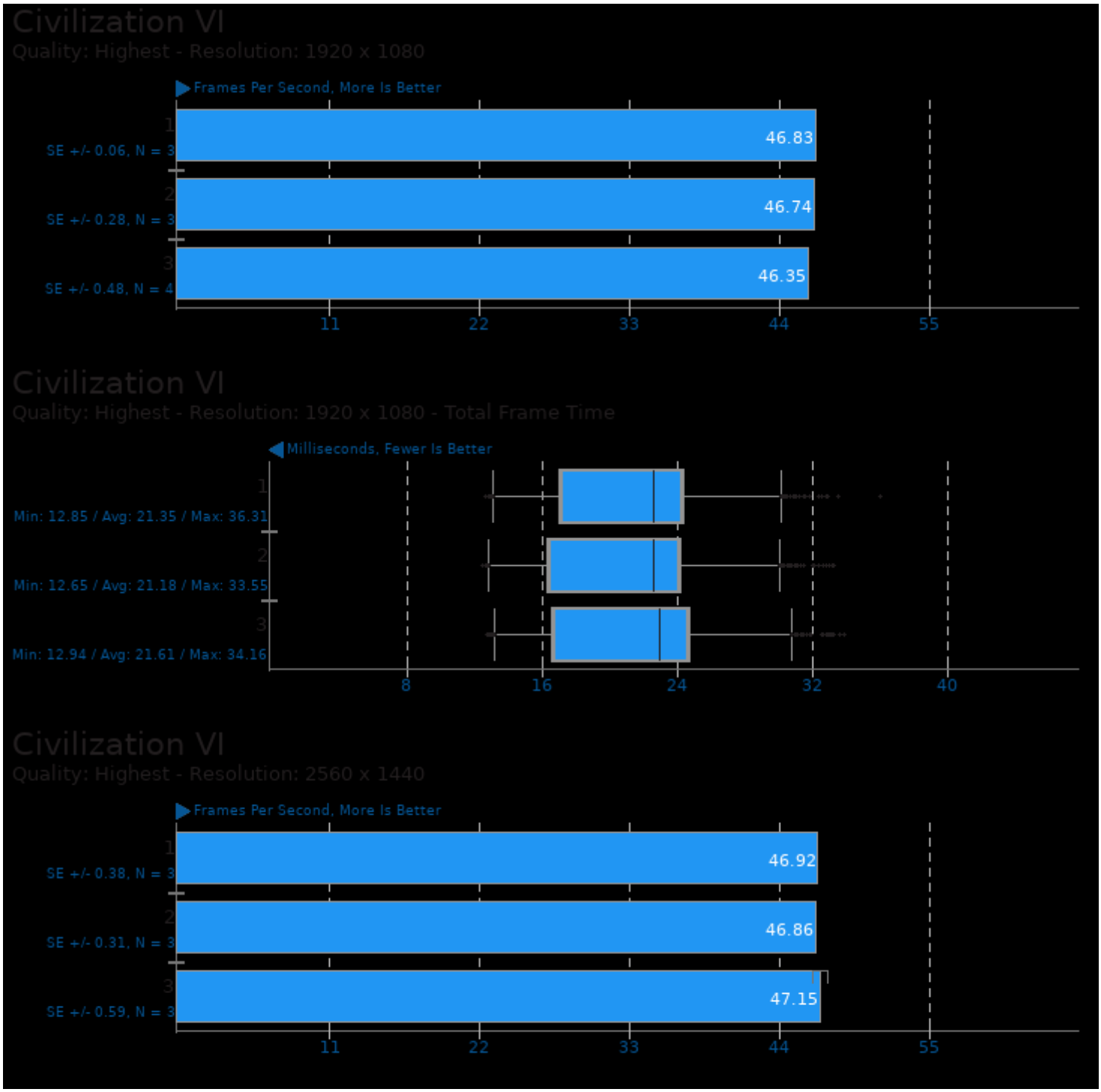
Civ VI Linux

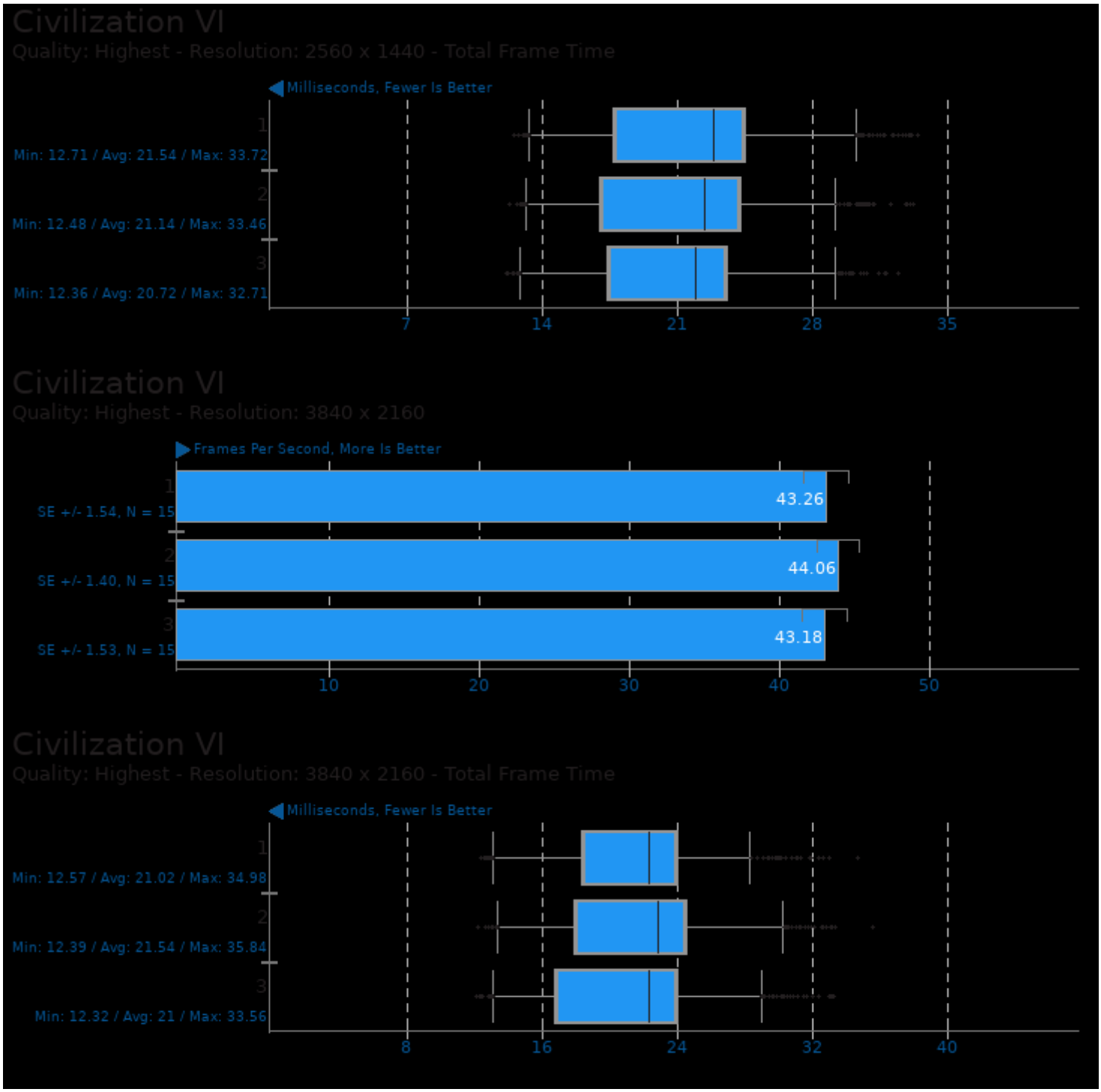

Civilization VI
Quality: Lowest - Resolution: 1920 x 1080
Frames Per Second, More Is Better
1
SE +/- 1.96, N = 15
63.83
2
SE +/- 0.36, N = 3
66.95
3
SE +/- 0.15, N = 3
67.15
4
SE +/- 2.09, N = 15
59.18
15
30
45
60
75
Civilization VI
Quality: Lowest - Resolution: 1920 x 1080 - Total Frame Time
Milliseconds, Fewer Is Better
1
Min: 8.91 / Avg: 14.82 / Max: 19.59
2
Min: 8.84 / Avg: 14.82 / Max: 19.81
3
Min: 8.93 / Avg: 14.89 / Max: 19.64
4
Min: 11.93 / Avg: 20.61 / Max: 28.93
6
12
18
24
30
Civilization VI
Quality: Lowest - Resolution: 2560 x 1440
Frames Per Second, More Is Better
1
SE +/- 2.06, N = 15
61.94
2
SE +/- 0.27, N = 3
67.13
3
SE +/- 2.39, N = 15
59.92
4
SE +/- 2.09, N = 15
59.65
15
30
45
60
75

Civ VI Linux


Civilization VI
Quality: Lowest - Resolution: 2560 x 1440 - Total Frame Time
Milliseconds, Fewer Is Better
1
Min: 8.78 / Avg: 14.89 / Max: 19.68
2
Min: 8.94 / Avg: 15.01 / Max: 20.25
3
Min: 11.85 / Avg: 20.34 / Max: 27.14
4
Min: 11.54 / Avg: 20.56 / Max: 28.17
6
12
18
24
30
Civilization VI
Quality: Lowest - Resolution: 3840 x 2160
Frames Per Second, More Is Better
1
SE +/- 2.10, N = 15
62.59
2
SE +/- 0.38, N = 3
67.91
3
SE +/- 2.27, N = 15
58.48
15
30
45
60
75
Civilization VI
Quality: Lowest - Resolution: 3840 x 2160 - Total Frame Time
Milliseconds, Fewer Is Better
1
Min: 8.64 / Avg: 14.77 / Max: 19.39
2
Min: 8.63 / Avg: 14.57 / Max: 18.96
3
Min: 11.87 / Avg: 20.16 / Max: 27.84
6
12
18
24
30

Civ VI Linux


Civilization VI
Quality: Highest - Resolution: 1920 x 1080
Frames Per Second, More Is Better
1
SE +/- 0.06, N = 3
46.83
2
SE +/- 0.28, N = 3
46.74
3
SE +/- 0.48, N = 4
46.35
11
22
33
44
55
Civilization VI
Quality: Highest - Resolution: 1920 x 1080 - Total Frame Time
Milliseconds, Fewer Is Better
1
Min: 12.85 / Avg: 21.35 / Max: 36.31
2
Min: 12.65 / Avg: 21.18 / Max: 33.55
3
Min: 12.94 / Avg: 21.61 / Max: 34.16
8
16
24
32
40
Civilization VI
Quality: Highest - Resolution: 2560 x 1440
Frames Per Second, More Is Better
1
SE +/- 0.38, N = 3
46.92
2
SE +/- 0.31, N = 3
46.86
3
SE +/- 0.59, N = 3
47.15
11
22
33
44
55



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 06:03.