

www.phoronix-test-suite.com

imaxion

Intel Core i7 840Q testing with a Dell 0R1203 (A10 BIOS) and NVIDIA Quadro FX 2800M 1GB on Ubuntu 20.04 via the Phoronix Test Suite.

Automated Executive Summary

n751jk-495.44+fan had the most wins, coming in first place for 28% of the tests.

Based on the geometric mean of all complete results, the fastest (dual-asymetric) was 6.147x the speed of the slowest (mythtv).

Test Systems:

imaxion before reboot

Processor: Intel Core i5-2400 @ 3.40GHz (4 Cores), Motherboard: Apple Mac-942B59F58194171B, Chipset: Intel 2nd Generation Core Family DRAM, Memory: 8192MB, Disk: 1000GB Western Digital WD1001FALS-4, Graphics: AMD BARTS (DRM 2.50.0 / 5.0.0-29-generic LLVM 8.0.0) 1024MB, Audio: Cirrus Logic CS4206, Monitor: iMac +

PLB2403WS, Network: Broadcom and subsidiaries NetXtreme BCM57765 Gigabit PCIe + Qualcomm Atheros AR93xx Wireless

OS: Ubuntu 18.04, Kernel: 5.0.0-29-generic (x86_64), Desktop: MATE 1.20.1, Display Driver: radeon 19.0.1, OpenGL: 3.3 Mesa 19.0.8, File-System: ext4, Screen Resolution: 4480x1440

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

after reboot perf+

Processor: Intel Core i5-2400 @ 3.40GHz (4 Cores), Motherboard: Apple Mac-942B59F58194171B, Chipset: Intel 2nd Generation Core Family DRAM, Memory: 8192MB, Disk: 1000GB Western Digital WD1001FALS-4, Graphics: AMD BARTS (DRM 2.50.0 / 5.0.0-29-generic LLVM 8.0.0) 1024MB, Audio: Cirrus Logic CS4206, Monitor: iMac, Network: Broadcom and subsidiaries NetXtreme BCM57765 Gigabit PCIe + Qualcomm Atheros AR93xx Wireless

OS: Ubuntu 18.04, Kernel: 5.0.0-29-generic (x86_64), Desktop: MATE 1.20.1, Display Driver: radeon 19.0.1, OpenGL: 3.3 Mesa 19.0.8, File-System: ext4, Screen Resolution: 2560x1440

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

after reboot perf+ ds

Processor: Intel Core i5-2400 @ 3.40GHz (4 Cores), Motherboard: Apple Mac-942B59F58194171B, Chipset: Intel 2nd Generation Core Family DRAM, Memory: 8192MB, Disk: 1000GB Western Digital WD1001FALS-4, Graphics: AMD BARTS (DRM 2.50.0 / 5.0.0-29-generic LLVM 8.0.0) 1024MB, Audio: Cirrus Logic CS4206, Monitor: iMac, Network: Broadcom and subsidiaries NetXtreme BCM57765 Gigabit PCIe + Qualcomm Atheros AR93xx Wireless

OS: Ubuntu 18.04, Kernel: 5.0.0-29-generic (x86_64), Desktop: MATE 1.20.1, Display Driver: radeon 19.0.1, OpenGL: 3.3 Mesa 19.0.8, File-System: ext4, Screen Resolution: 4480x1440

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

after multiple suspends

Processor: Intel Core i5-2400 @ 3.40GHz (4 Cores), Motherboard: Apple Mac-942B59F58194171B, Chipset: Intel 2nd Generation Core Family DRAM, Memory: 8192MB, Disk: 1000GB Western Digital WD1001FALS-4, Graphics: AMD BARTS (DRM 2.50.0 / 5.0.0-31-generic LLVM 8.0.0) 1024MB, Audio: Cirrus Logic CS4206, Monitor: iMac + PLB2403WS, Network: Broadcom and subsidiaries NetXtreme BCM57765 Gigabit PCIe + Qualcomm Atheros AR93xx Wireless

OS: Ubuntu 18.04, Kernel: 5.0.0-31-generic (x86_64), Desktop: MATE 1.20.1, Display Driver: radeon 19.0.1, OpenGL: 3.3 Mesa 19.0.8, File-System: ext4, Screen Resolution: 4480x1440

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

mythtv

Processor: Intel Xeon L5408 @ 2.13GHz (4 Cores), Motherboard: FOXCONN G41MX 2.0/G41MX-K 2.0 v1.0, Chipset: Intel 4 DRAM + ICH7, Memory: 4096MB, Disk: 500GB Western Digital WD5000AAKS-0 + 2 x 40GB OCZ REVODRIVE,

Graphics: NVE7 1024MB, Audio: Realtek ALC888, Monitor: 273EQH, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-169-generic (x86_64), Desktop: LXDE 0.8.2, Display Server: X Server 1.18.4, Display Driver: modesetting 1.18.4, OpenGL: 4.3 Mesa 18.0.5, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 1920x1080

Graphics Notes: EXA

mythtv-nvda

Processor: Intel Xeon L5408 @ 2.13GHz (4 Cores), Motherboard: FOXCONN G41MX 2.0/G41MX-K 2.0 v1.0, Chipset: Intel 4 DRAM + ICH7, Memory: 4096MB, Disk: 500GB Western Digital WD5000AAKS-0 + 2 x 40GB OCZ REVODRIVE, Graphics: ASUS NVIDIA GeForce GTX 650 1024MB (1058/2500MHz), Audio: Realtek ALC888, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-169-generic (x86_64), Desktop: LXDE 0.8.2, Display Driver: NVIDIA 384.130, OpenGL: 4.5.0, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 1920x1080

Graphics Notes: SNA

mythtv-nvda-inside

dual

Processor: Intel Xeon L5408 @ 2.13GHz (4 Cores), Motherboard: FOXCONN G41MX 2.0/G41MX-K 2.0 v1.0, Chipset: Intel 4 DRAM + ICH7, Memory: 4096MB, Disk: 500GB Western Digital WD5000AAKS-0, Graphics: ASUS NVIDIA GeForce GTX 650 1024MB (1058/2500MHz), Audio: Realtek ALC888, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-169-generic (x86_64), Desktop: LXDE 0.8.2, Display Driver: NVIDIA 384.130, OpenGL: 4.5.0, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 1920x1080

ver

Processor: Intel Xeon L5408 @ 2.13GHz (4 Cores), Motherboard: FOXCONN G41MX 2.0/G41MX-K 2.0 v1.0, Chipset: Intel 4 DRAM + ICH7, Memory: 4096MB, Disk: 500GB Western Digital WD5000AAKS-0, Graphics: ASUS NVIDIA GeForce GTX 650 1024MB (1058/2500MHz), Audio: Realtek ALC888, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-170-generic (x86_64), Desktop: LXDE 0.8.2, Display Driver: NVIDIA 384.130, OpenGL: 4.5.0, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 1920x1080

quad-display

Quad-display-1440p

Processor: Intel Xeon L5408 @ 2.13GHz (4 Cores), Motherboard: FOXCONN G41MX 2.0/G41MX-K 2.0 v1.0, Chipset: Intel 4 DRAM + ICH7, Memory: 4096MB, Disk: 500GB Western Digital WD5000AAKS-0, Graphics: ASUS NVIDIA GeForce GTX 650 1024MB (1058/2500MHz), Audio: Realtek ALC888, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-170-generic (x86_64), Desktop: LXDE 0.8.2, Display Driver: NVIDIA 384.130, OpenGL: 4.5.0, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 7040x1440

single-1440p

Processor: Intel Xeon L5408 @ 2.13GHz (4 Cores), Motherboard: FOXCONN G41MX 2.0/G41MX-K 2.0 v1.0, Chipset: Intel 4 DRAM + ICH7, Memory: 4096MB, Disk: 500GB Western Digital WD5000AAKS-0, Graphics: ASUS NVIDIA GeForce GTX 650 1024MB (1058/2500MHz), Audio: Realtek ALC888, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-170-generic (x86_64), Desktop: LXDE 0.8.2, Display Driver: NVIDIA 384.130, OpenGL: 4.5.0, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 2560x1440

single-1080p

Processor: Intel Xeon L5408 @ 2.13GHz (4 Cores), Motherboard: FOXCONN G41MX 2.0/G41MX-K 2.0 v1.0, Chipset: Intel 4 DRAM + ICH7, Memory: 4096MB, Disk: 500GB Western Digital WD5000AAKS-0, Graphics: ASUS NVIDIA GeForce GTX 650 1024MB (1058/2500MHz), Audio: Realtek ALC888, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-170-generic (x86_64), Desktop: LXDE 0.8.2, Display Driver: NVIDIA 384.130, OpenGL: 4.5.0, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 1920x1080

single-1024-5to4

Processor: Intel Xeon L5408 @ 2.13GHz (4 Cores), Motherboard: FOXCONN G41MX 2.0/G41MX-K 2.0 v1.0, Chipset: Intel 4 DRAM + ICH7, Memory: 4096MB, Disk: 500GB Western Digital WD5000AAKS-0, Graphics: ASUS NVIDIA GeForce GTX 650 1024MB (1058/2500MHz), Audio: Realtek ALC888, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-170-generic (x86_64), Desktop: LXDE 0.8.2, Display Driver: NVIDIA 384.130, OpenGL: 4.5.0, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 1280x1024

dual-1024-5to4

dual-1024-5to4-nosli

Processor: Intel Xeon L5408 @ 2.13GHz (4 Cores), Motherboard: FOXCONN G41MX 2.0/G41MX-K 2.0 v1.0, Chipset: Intel 4 DRAM + ICH7, Memory: 4096MB, Disk: 500GB Western Digital WD5000AAKS-0, Graphics: ASUS NVIDIA GeForce GTX 650 1024MB (1058/2500MHz), Audio: Realtek ALC888, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-170-generic (x86_64), Desktop: LXDE 0.8.2, Display Driver: NVIDIA 384.130, OpenGL: 4.5.0, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 2560x1024

dual-asymetric

Processor: Intel Xeon L5408 @ 2.13GHz (4 Cores), Motherboard: FOXCONN G41MX 2.0/G41MX-K 2.0 v1.0, Chipset:

Intel 4 DRAM + ICH7, Memory: 4096MB, Disk: 500GB Western Digital WD5000AAKS-0, Graphics: ASUS NVIDIA GeForce GTX 650 1024MB (1058/2500MHz), Audio: Realtek ALC888, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 16.04, Kernel: 4.4.0-170-generic (x86_64), Desktop: LXDE 0.8.2, Display Driver: NVIDIA 384.130, OpenGL: 4.5.0, Compiler: GCC 5.4.0 20160609, File-System: ext4, Screen Resolution: 2720x1024

Intel HD 5500

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: LENOVO Lenovo Z51-70 (C2CN21WWV2.02 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 2 x 8192 MB DDR3-1600MT/s Kingston, Disk: 500GB Samsung SSD 860, Graphics: Intel HD 5500 3GB (900MHz), Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Realtek RTL8723BE PCIe

OS: Ubuntu 20.04, Kernel: 5.8.0-49-generic (x86_64), Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.6, Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: intel_cpufreq schedutil - CPU Microcode: 0x2f - Thermald 1.9.1
Graphics Notes: GLAMOR
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + 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 generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

Lenovo-uni

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: LENOVO Lenovo Z51-70 (C2CN21WWV2.02 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 2 x 8192 MB DDR3-1600MT/s Kingston, Disk: 500GB Samsung SSD 860, Graphics: Intel HD 5500 3GB (900MHz), Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Realtek RTL8723BE PCIe

OS: Ubuntu 20.04, Kernel: 5.8.0-50-generic (x86_64), Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.6, Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: intel_cpufreq ondemand - CPU Microcode: 0x2f - Thermald 1.9.1
Graphics Notes: GLAMOR
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + 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 generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

cw1xxx

Processor: AMD Ryzen 5 3500U @ 2.10GHz (4 Cores / 8 Threads), Motherboard: HP 8615 v46.24 (F.42 BIOS), Chipset: AMD Raven/Raven2, Memory: 6GB, Disk: 256GB Kioxia KBG30ZMV256G, Graphics: AMD Picasso 2GB (1200/1200MHz), Audio: AMD Raven/Raven2/Fenghuang, Network: Realtek RTL8111/8168/8411 + Realtek RTL8821CE 802.11ac PCIe

OS: Ubuntu 20.04, Kernel: 5.8.0-50-generic (x86_64), Desktop: MATE 1.24.0, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.6 (LLVM 11.0.0), Vulkan: 1.2.131, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq ondemand (Boost: Enabled) - CPU Microcode: 0x8108102

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: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

n751jk-495.44+fan

Processor: Intel Core i7-4710HQ @ 3.50GHz (4 Cores / 8 Threads), Motherboard: ASUS N751JK v1.0 (N751JK.207 BIOS), Chipset: Intel Xeon E3-1200 v3/4th, Memory: 1 x 8192 MB DDR3-1600MT/s, Disk: 1000GB Seagate ST1000LM024 HN-M, Graphics: ASUS NVIDIA GeForce GTX 850M 2GB, Audio: Intel Xeon E3-1200 v3/4th, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR9462

OS: Ubuntu 20.04, Kernel: 5.11.0-42-generic (x86_64), Display Server: X Server 1.20.13, Display Driver: NVIDIA 495.44, OpenGL: 4.6.0, Vulkan: 1.2.145, Compiler: GCC 9.4.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: intel_cpufreq schedutil - CPU Microcode: 0x28 - Thermald 1.9.1
Graphics Notes: BAR1 / Visible vRAM Size: 256 MiB
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + 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 generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

n751jk-495.44+fan-multi

Processor: Intel Core i7-4710HQ @ 3.50GHz (4 Cores / 8 Threads), Motherboard: ASUS N751JK v1.0 (N751JK.207 BIOS), Chipset: Intel Xeon E3-1200 v3/4th, Memory: 1 x 8192 MB DDR3-1600MT/s, Disk: 1000GB Seagate ST1000LM024 HN-M, Graphics: ASUS NVIDIA GeForce GTX 850M 2GB, Audio: Intel Xeon E3-1200 v3/4th, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros AR9462

OS: Ubuntu 20.04, Kernel: 5.11.0-42-generic (x86_64), Display Server: X Server 1.20.13, Display Driver: NVIDIA 495.44, OpenGL: 4.6.0, Vulkan: 1.2.145, Compiler: GCC 9.4.0, File-System: ext4, Screen Resolution: 9600x2160

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: intel_cpufreq schedutil - CPU Microcode: 0x28 - Thermald 1.9.1
Graphics Notes: BAR1 / Visible vRAM Size: 256 MiB
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + 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 generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

m6500

Processor: Intel Core i7 840Q @ 1.87GHz (4 Cores / 8 Threads), Motherboard: Dell 0R1203 (A10 BIOS), Chipset: Intel Core DMI, Memory: 4096 MB + 4096 MB + 2048 MB + 4096 MB DDR3-1333MT/s, Disk: 256GB TOSHIBA KSG60ZSE + 32GB SAMSUNG MZMPC032, Graphics: NVIDIA Quadro FX 2800M 1GB, Audio: IDT 92HD81B1C5, Network: Broadcom NetXtreme BCM5761e PCIe + Intel Centrino Ultimate-N 6300

OS: Ubuntu 20.04, Kernel: 5.4.0-92-generic (x86_64), Display Server: X Server 1.20.13, Display Driver: NVIDIA 340.108, OpenGL: 3.3.0, Compiler: GCC 9.4.0, File-System: ext4, Screen Resolution: 1920x1200

Kernel Notes: Transparent Huge Pages: madvise
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Vulnerable: Clear buffers attempted no microcode; SMT vulnerable + meltdown: Mitigation of PTI + 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 generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

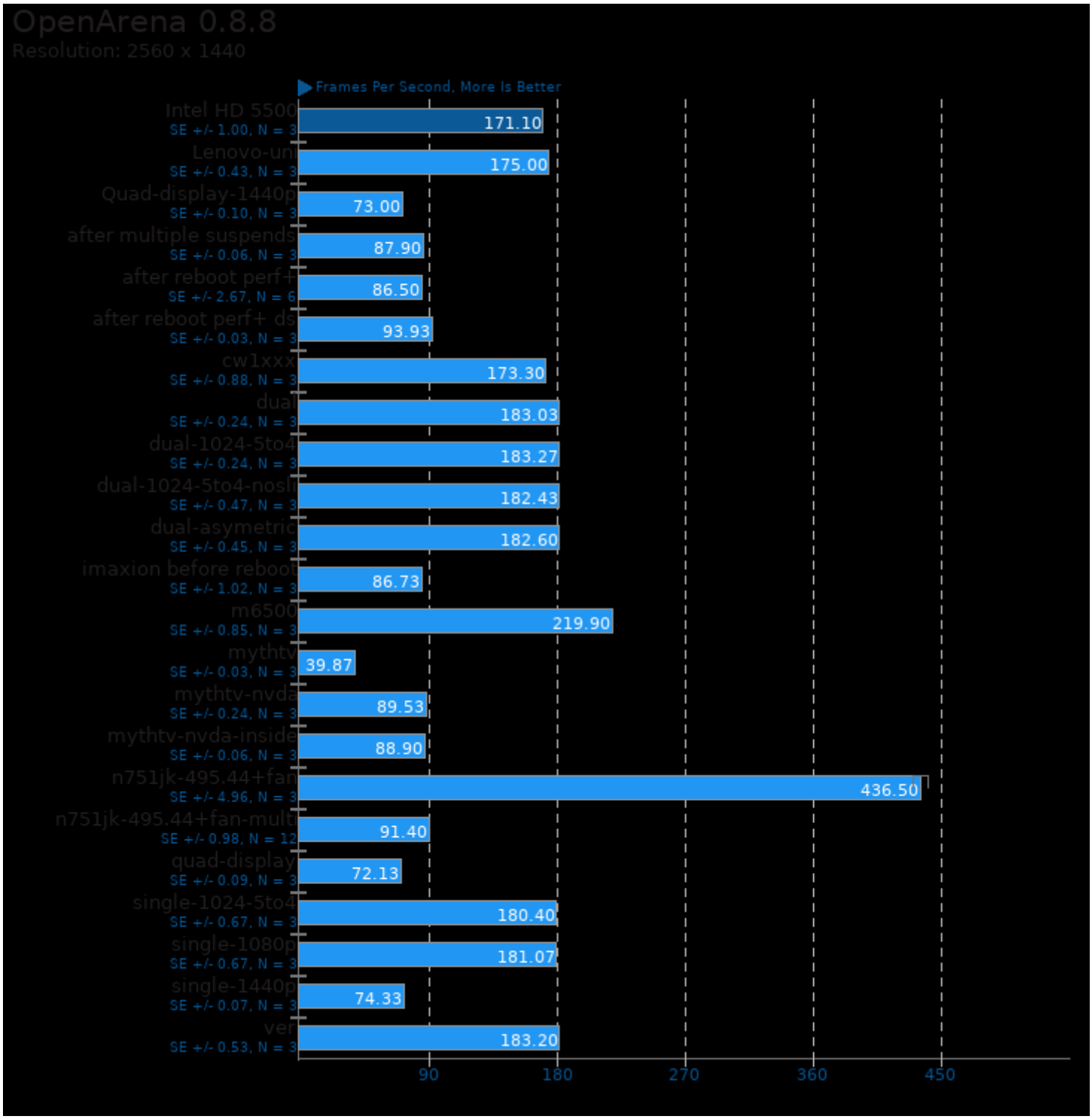
imaxion

	imaxion before reboot	after reboot perf+	after reboot perf+ds	after multiple suspen	mythtv	mythtv-nvda	mythtv-nvda-inside	dual	ver	quad-display	Quad-display-1440p	single-1440p	single-1080p	single-1024-5to4	dual-1024-5to4	dual-1024-5to4-nosli	dual-asymetric	Intel HD 5500	Lenovo-uni	cw1xxx	n751jk-495.44+fan	n751jk-495.44+fan-multi	m6500
OpenArena - 2560 x 1440 (FPS)	86.73	86.50	93.93	87.90	**39.87**	89.53	88.90	183.03	183.20	72.13	73.00	74.33	181.07	180.40	183.27	182.43	182.60	171.1	175.0	173.3	**436.5**	91.4	219.9
Normalized	19.87%	19.82%	21.52%	20.14%	9.13%	20.51%	20.37%	41.93%	41.97%	16.52%	16.72%	17.02%	41.48%	41.33%	41.99%	41.79%	41.83%	39.23%	40.09%	39.79%	100%	20.94%	50.38%
Standard Deviation	2%	7.6%	0.1%	0.1%	0.1%	0.5%	0.1%	0.2%	0.5%	0.2%	0.2%	0.2%	0.6%	0.6%	0.2%	0.4%	0.4%	1%	0.4%	0.9%	2%	3.7%	0.7%
Tesseract - 2560 x 1440 (FPS)	75.04	49.43	76.77	74.47	**22.99**	92.13	93.38	113.37	113.34	109.05	77.66	80.62	111.65	**133.30**	131.50	131.29	131.25	40.12945	40.54387	81.13893	131.4326	128.3374	55.80161
Normalized	56.29%	37.08%	57.59%	55.87%	17.25%	69.17%	70.05%	85.03%	85.03%	81.85%	58.26%	60.47%	83.76%	100%	98.61%	98.47%	98.47%	30.17%	30.47%	60.87%	98.61%	96.25%	41.86%
Standard Deviation	0.8%	0.5%	0.2%	1.2%	0.7%	0.7%	0.7%	0.5%	0.7%	2.2%	0.5%	0.1%	0.2%	1%	0.4%	0.5%	0.7%	0.7%	2.4%	0.3%	1.6%	0.9%	0.5%
Unigine Valley - 2560 x 1440 - Windowed - D3D11 (FPS)	10.25	6.23	10.27	10.27	**1.75**	10.60	10.55	11.47	11.51	**12.16**	11.16	11.19	11.49	11.66	11.38	11.38	11.39						
Normalized	84.29%	51.23%	84.46%	84.46%	14.39%	87.17%	86.76%	94.36%	94.61%	100%	91.78%	92.02%	94.49%	95.89%	93.58%	93.58%	93.67%						
Standard Deviation	0.1%	0.1%	0%	0.1%	0.1%	0.3%	0.1%	0.9%	0.2%	21.6%	0.1%	0.1%	0.2%	0.1%	0.1%	0.2%	0.1%						
Unigine Valley - 2560 x 1440 - Fullscreen - D3D11 (FPS)	10.19	6.21	10.22	10.19	**2.97**	16.73	16.68	18.92	18.90	11.06	11.13	11.22	18.92	**26.65**	15.45	15.44	14.65						
Normalized	38.24%	23.30%	38.35%	38.24%	11.14%	62.79%	62.59%	70.99%	70.92%	41.56%	41.76%	42.13%	70.99%	100%	57.97%	57.93%	54.97%						
Standard Deviation	0.1%	0%	0%	0.1%	0.1%	0%	0%	0%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0%	0%						

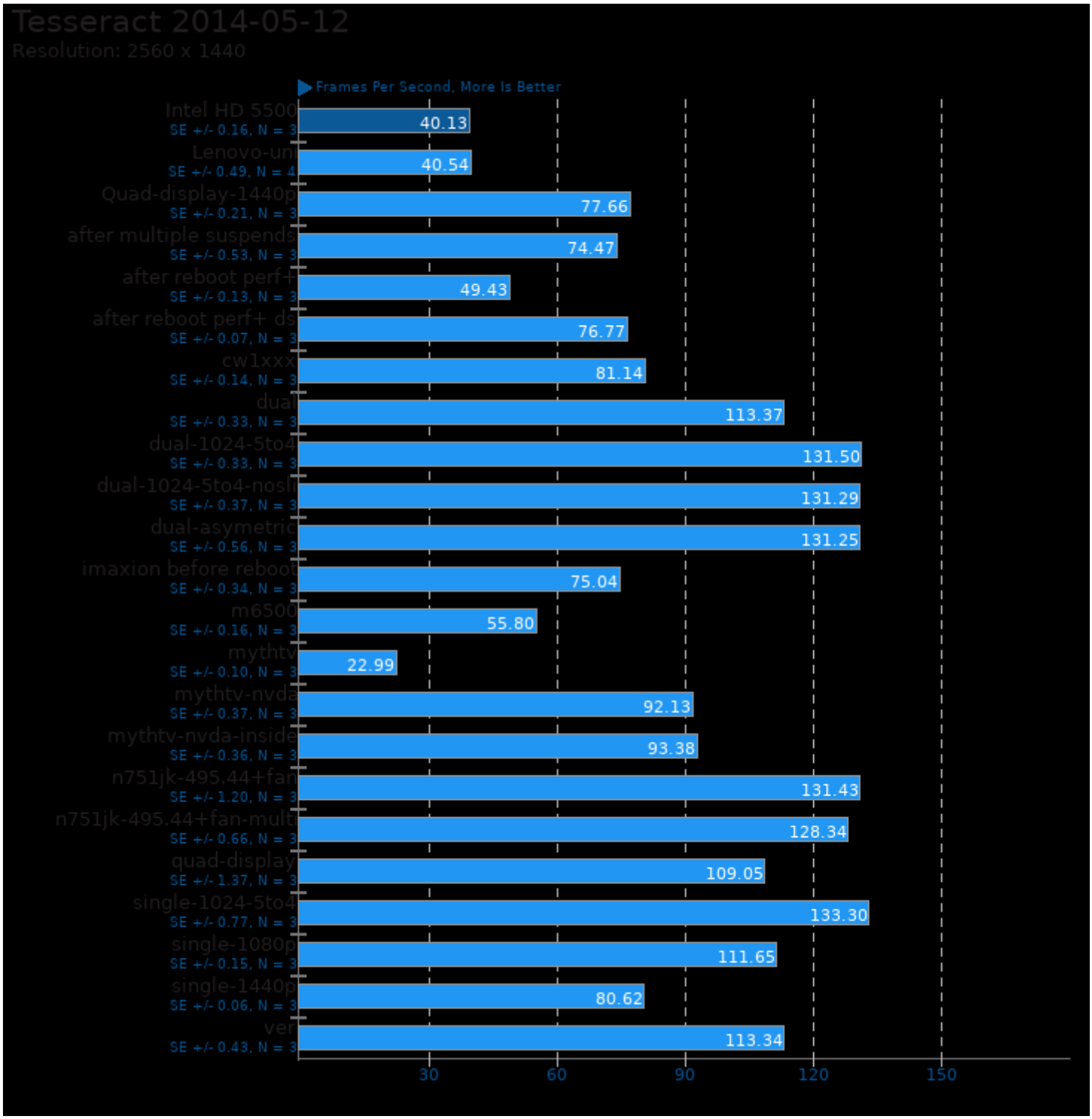
imaxion

Xonotic - 2560 x 1440 - Ultimate (FPS)	60.09	40.35	62.29	60.11	**11.76**	35.42	35.24	73.50	73.54	58.40	57.96	71.25	73.66	80.04	80.33	80.55	80.22	41.1264607	41.7102920	64.0173561	**100.00472**	26.7960093	32.2637169
Normalized	60.09%	40.35%	62.29%	60.11%	11.76%	35.42%	35.24%	73.50%	73.54%	58.40%	57.96%	71.25%	73.66%	80.04%	80.33%	80.55%	80.22%	41.12%	41.71%	64.01%	100%	26.79%	32.26%
Standard Deviation	0%	0%	0%	0.1%	0%	0.3%	0.8%	0.3%	0.7%	0.5%	0.3%	29.9%	0.3%	0.5%	0.4%	1%	1.3%	0.3%	0.3%	3.4%	0.7%	1.4%	0.3%
GpuTest - Plot3D - 2560 x 1440 - Windowed	130.84	72.20	131.22	130.83	68.94	**555.64**	400.98	403.83	404.39	277.69	282.45	284.60	393.60	480.97	481.43	482.19	484.31	**383.4**	385.9	129.42	246.44	243.05	160.72
Normalized	23.55%	12.99%	23.62%	23.55%	12.41%	100%	72.11%	72.66%	72.77%	49.90%	50.81%	51.22%	70.86%	86.56%	86.63%	86.76%	87.14%	6.90%	6.95%	23.29%	44.39%	43.74%	28.93%
Standard Deviation	0%	0%	0%	0%	0.2%	12.2%	0%	0%	0%	0%	0%	0.2%	0.1%	0%	0.1%	0%	0%	0.1%	0.3%	0.7%	0.1%	3.3%	0.1%
GpuTest - Plot3D - 2560 x 1440 - Fullscreen	125.14	71.66	128.26	122.31	69.07	482.30	401.05	403.84	404.47	277.22	282.42	284.03	393.33	481.06	481.13	482.18	**483.93**	**383.5**	401.1	121.02	239.53	237.24	160.01
Normalized	25.86%	14.81%	26.51%	25.27%	14.27%	99.66%	82.87%	83.47%	83.58%	57.29%	58.31%	58.69%	81.21%	99.41%	99.43%	99.63%	100%	7.92%	8.29%	25.01%	49.50%	49.02%	33.06%
Standard Deviation	7%	0%	5.4%	7.6%	0.5%	16.2%	0%	0%	0%	0.1%	0%	0%	0%	0%	0%	0%	0.2%	0.2%	2.5%	0.6%	0.1%	2.9%	0.6%

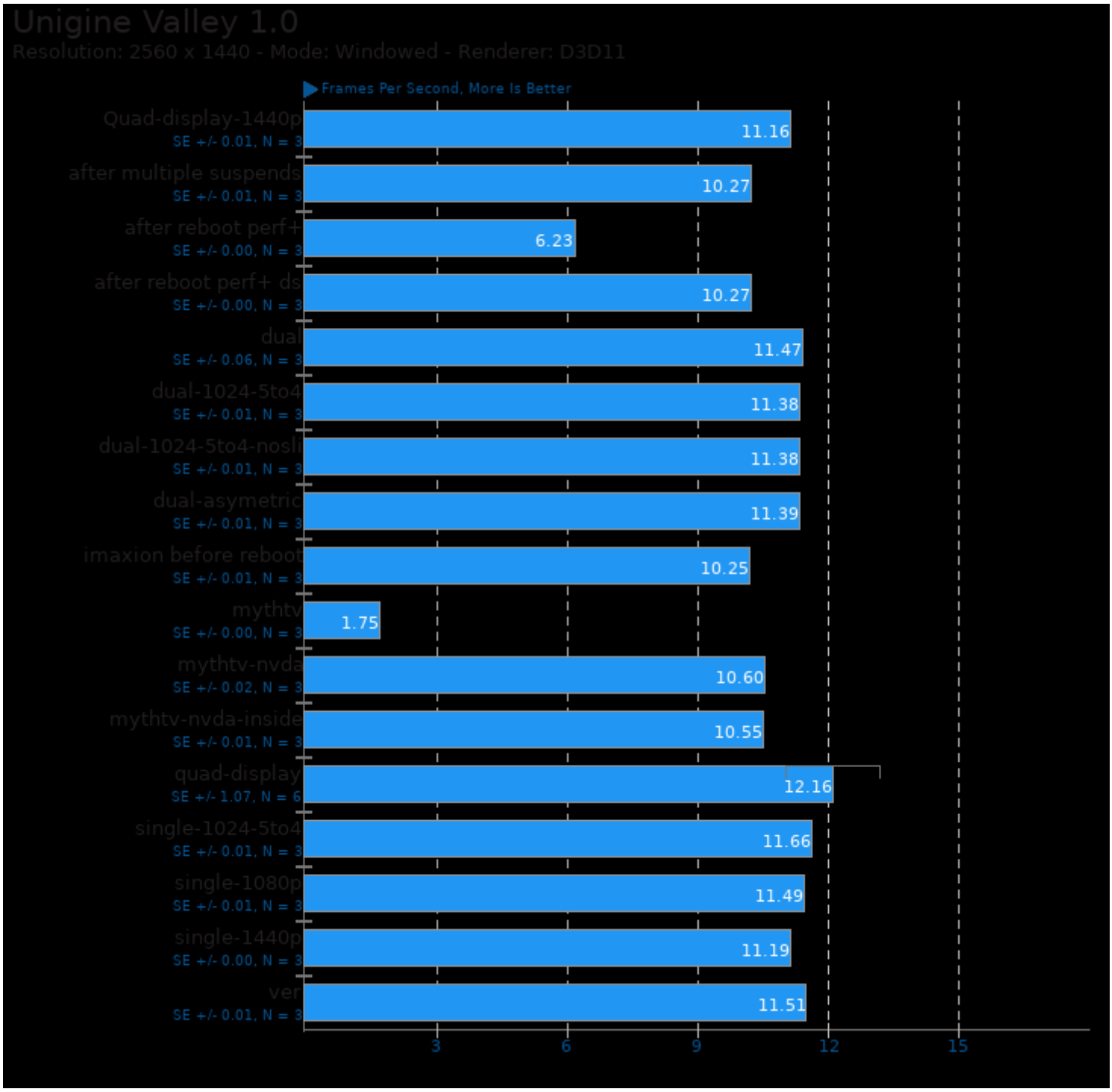
imaxion


OpenArena 0.8.8
Resolution: 2560 x 1440
Frames Per Second, More Is Better
Intel HD 5500
SE +/- 1.00, N = 3
171.10
Lenovo-un
SE +/- 0.43, N = 3
175.00
Quad-display-1440p
SE +/- 0.10, N = 3
73.00
after multiple suspends
SE +/- 0.06, N = 3
87.90
after reboot perf+
SE +/- 2.67, N = 6
86.50
after reboot perf+ ds
SE +/- 0.03, N = 3
93.93
cw1xxx
SE +/- 0.88, N = 3
173.30
dual
SE +/- 0.24, N = 3
183.03
dual-1024-5to4
SE +/- 0.24, N = 3
183.27
dual-1024-5to4-nosh
SE +/- 0.47, N = 3
182.43
dual-asymetric
SE +/- 0.45, N = 3
182.60
imaxion before reboot
SE +/- 1.02, N = 3
86.73
m6500
SE +/- 0.85, N = 3
219.90
mythtv
SE +/- 0.03, N = 3
39.87
mythtv-nvda
SE +/- 0.24, N = 3
89.53
mythtv-nvda-inside
SE +/- 0.06, N = 3
88.90
n751jk-495.44+fan
SE +/- 4.96, N = 3
436.50
n751jk-495.44+fan-mult
SE +/- 0.98, N = 12
91.40
quad-display
SE +/- 0.09, N = 3
72.13
single-1024-5to4
SE +/- 0.67, N = 3
180.40
single-1080p
SE +/- 0.67, N = 3
181.07
single-1440p
SE +/- 0.07, N = 3
74.33
ver
SE +/- 0.53, N = 3
183.20
90
180
270
360
450

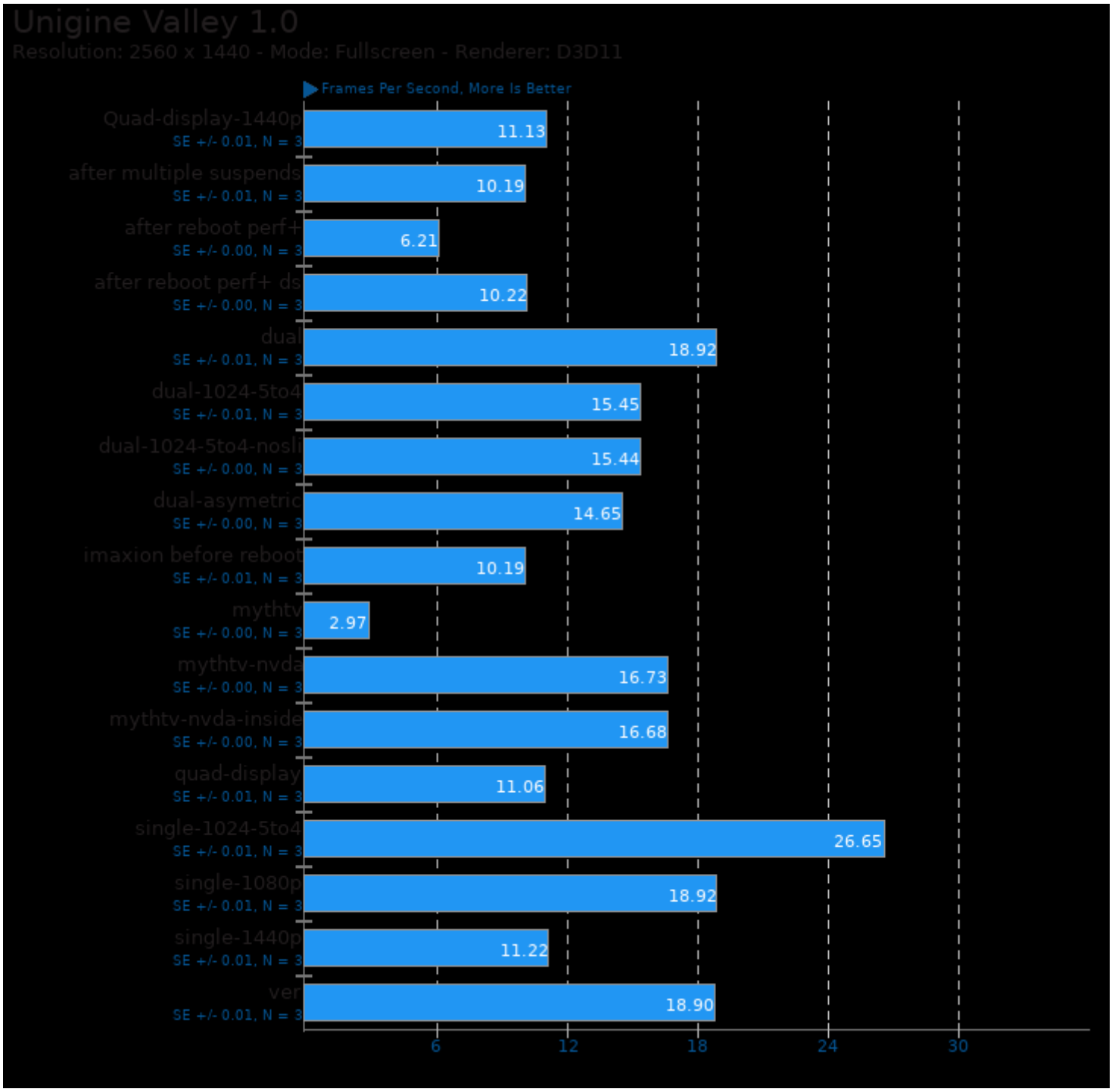
imaxion


Tesseract 2014-05-12
Resolution: 2560 x 1440
Frames Per Second, More Is Better
Intel HD 5500
SE +/- 0.16, N = 3
40.13
Lenovo-un
SE +/- 0.49, N = 4
40.54
Quad-display-1440p
SE +/- 0.21, N = 3
77.66
after multiple suspends
SE +/- 0.53, N = 3
74.47
after reboot perf+
SE +/- 0.13, N = 3
49.43
after reboot perf+ ds
SE +/- 0.07, N = 3
76.77
cw1xxx
SE +/- 0.14, N = 3
81.14
dual
SE +/- 0.33, N = 3
113.37
dual-1024-5to4
SE +/- 0.33, N = 3
131.50
dual-1024-5to4-nosh
SE +/- 0.37, N = 3
131.29
dual-asymetric
SE +/- 0.56, N = 3
131.25
imaxion before reboot
SE +/- 0.34, N = 3
75.04
m6500
SE +/- 0.16, N = 3
55.80
mythtv
SE +/- 0.10, N = 3
22.99
mythtv-nvda
SE +/- 0.37, N = 3
92.13
mythtv-nvda-inside
SE +/- 0.36, N = 3
93.38
n751jk-495.44+fan
SE +/- 1.20, N = 3
131.43
n751jk-495.44+fan-mult
SE +/- 0.66, N = 3
128.34
quad-display
SE +/- 1.37, N = 3
109.05
single-1024-5to4
SE +/- 0.77, N = 3
133.30
single-1080p
SE +/- 0.15, N = 3
111.65
single-1440p
SE +/- 0.06, N = 3
80.62
ver
SE +/- 0.43, N = 3
113.34
30
60
90
120
150

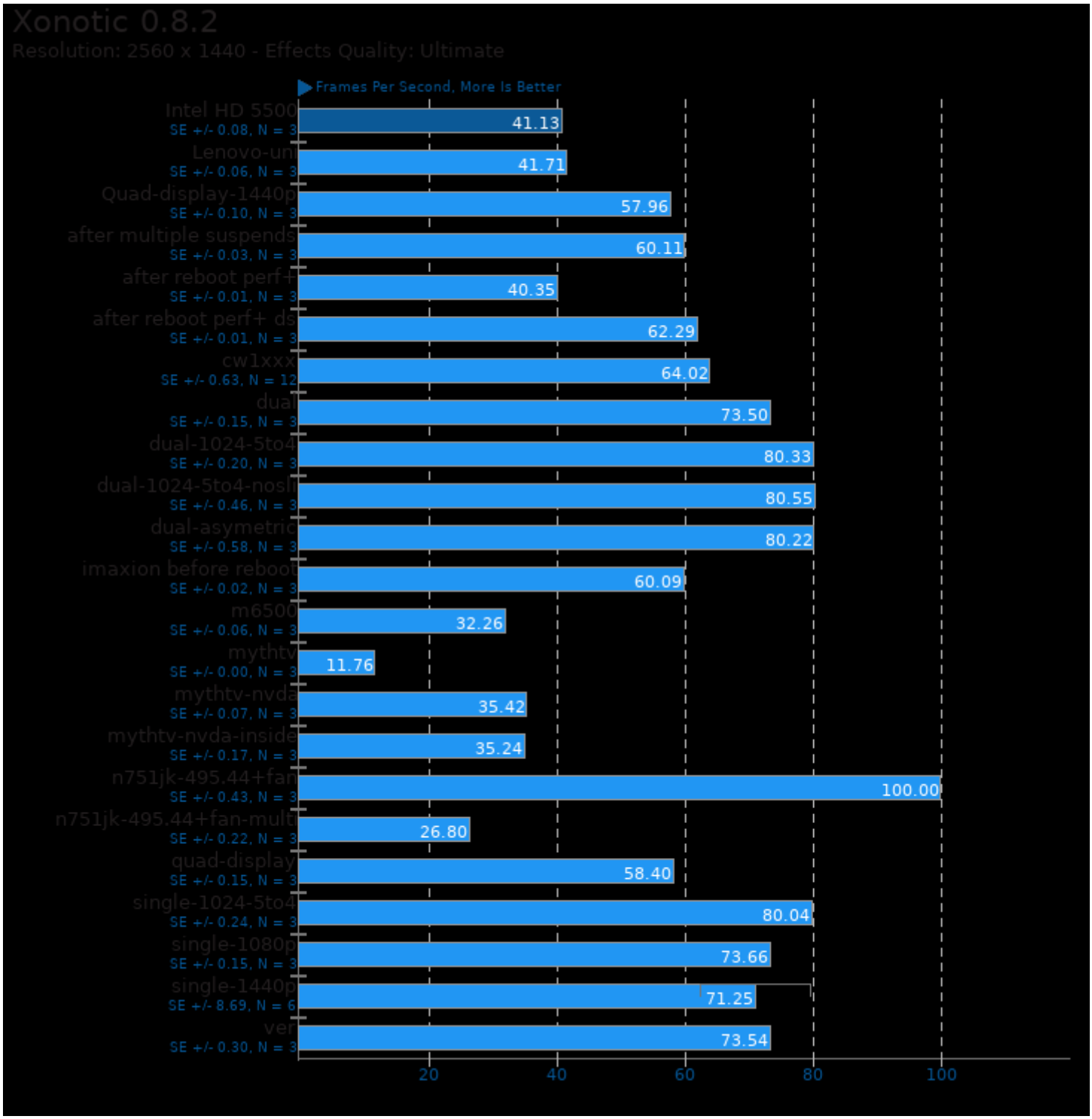
imaxion


Unigine Valley 1.0
Resolution: 2560 x 1440 - Mode: Windowed - Renderer: D3D11
Frames Per Second, More Is Better
Quad-display-1440p
SE +/- 0.01, N = 3
11.16
after multiple suspends
SE +/- 0.01, N = 3
10.27
after reboot perf+
SE +/- 0.00, N = 3
6.23
after reboot perf+ ds
SE +/- 0.00, N = 3
10.27
dual
SE +/- 0.06, N = 3
11.47
dual-1024-5to4
SE +/- 0.01, N = 3
11.38
dual-1024-5to4-nosli
SE +/- 0.01, N = 3
11.38
dual-asymetric
SE +/- 0.01, N = 3
11.39
imaxion before reboot
SE +/- 0.01, N = 3
10.25
mythtv
SE +/- 0.00, N = 3
1.75
mythtv-nvda
SE +/- 0.02, N = 3
10.60
mythtv-nvda-inside
SE +/- 0.01, N = 3
10.55
quad-display
SE +/- 1.07, N = 6
12.16
single-1024-5to4
SE +/- 0.01, N = 3
11.66
single-1080p
SE +/- 0.01, N = 3
11.49
single-1440p
SE +/- 0.00, N = 3
11.19
ver
SE +/- 0.01, N = 3
11.51
3
6
9
12
15

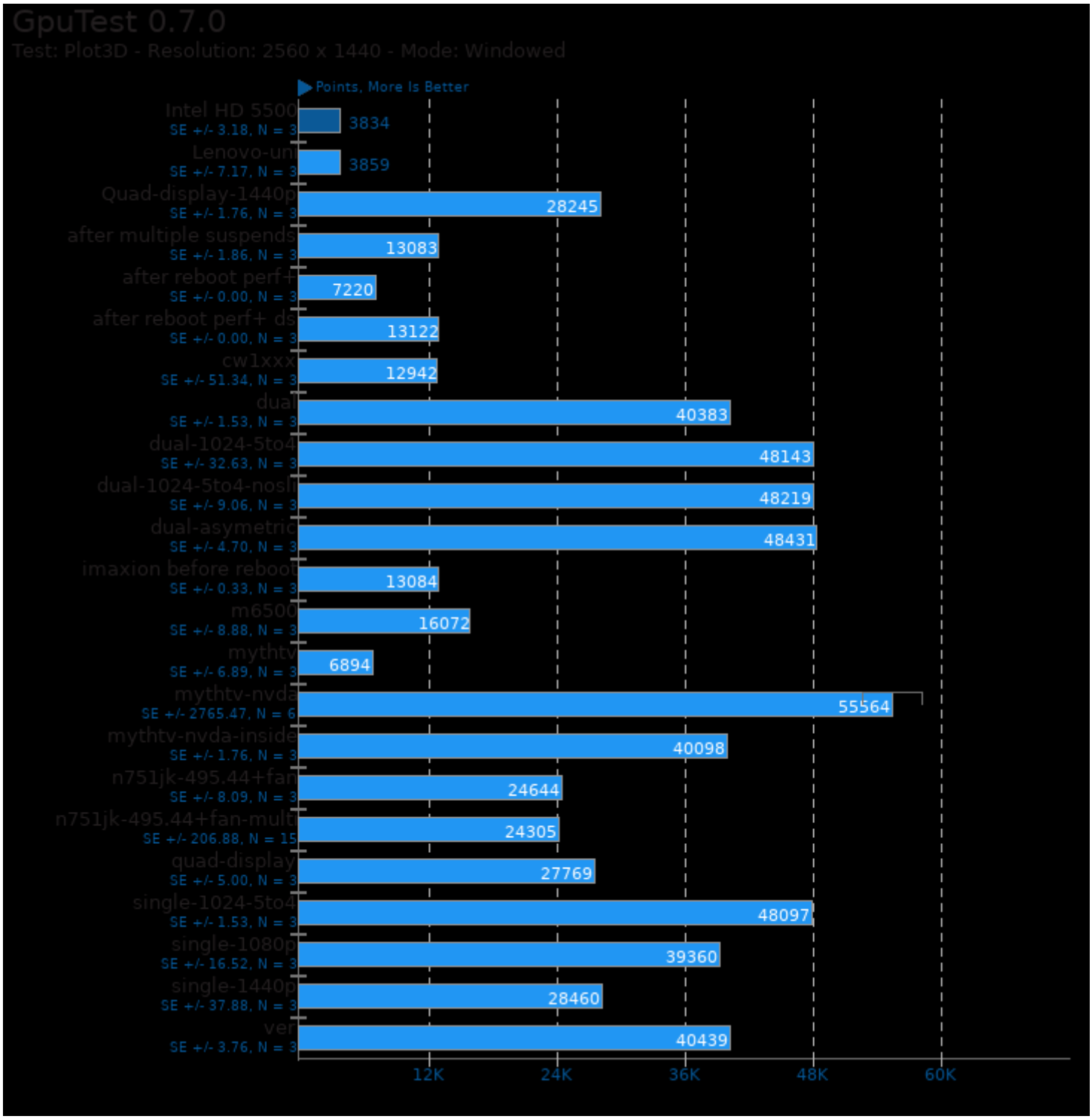
imaxion


Unigine Valley 1.0
Resolution: 2560 x 1440 - Mode: Fullscreen - Renderer: D3D11
Frames Per Second, More Is Better
Quad-display-1440p
SE +/- 0.01, N = 3
11.13
after multiple suspends
SE +/- 0.01, N = 3
10.19
after reboot perf+
SE +/- 0.00, N = 3
6.21
after reboot perf+ ds
SE +/- 0.00, N = 3
10.22
dual
SE +/- 0.01, N = 3
18.92
dual-1024-5to4
SE +/- 0.01, N = 3
15.45
dual-1024-5to4-nosli
SE +/- 0.00, N = 3
15.44
dual-asymetric
SE +/- 0.00, N = 3
14.65
imaxion before reboot
SE +/- 0.01, N = 3
10.19
mythtv
SE +/- 0.00, N = 3
2.97
mythtv-nvda
SE +/- 0.00, N = 3
16.73
mythtv-nvda-inside
SE +/- 0.00, N = 3
16.68
quad-display
SE +/- 0.01, N = 3
11.06
single-1024-5to4
SE +/- 0.01, N = 3
26.65
single-1080p
SE +/- 0.01, N = 3
18.92
single-1440p
SE +/- 0.01, N = 3
11.22
ver
SE +/- 0.01, N = 3
18.90
6
12
18
24
30

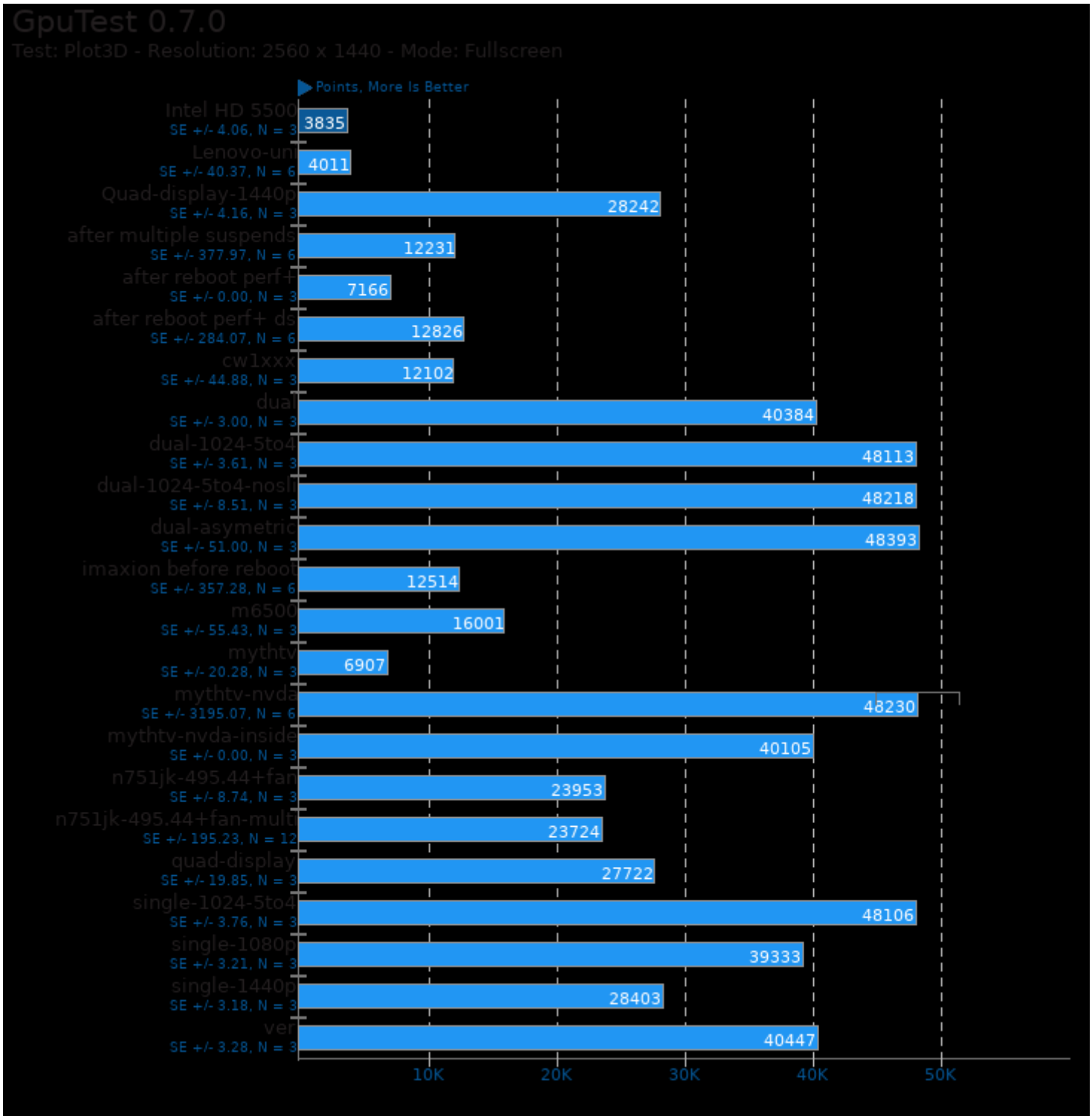
imaxion


Xonotic 0.8.2
Resolution: 2560 x 1440 - Effects Quality: Ultimate
Frames Per Second, More Is Better
Intel HD 5500
SE +/- 0.08, N = 3
41.13
Lenovo-un
SE +/- 0.06, N = 3
41.71
Quad-display-1440p
SE +/- 0.10, N = 3
57.96
after multiple suspends
SE +/- 0.03, N = 3
60.11
after reboot perf+
SE +/- 0.01, N = 3
40.35
after reboot perf+ ds
SE +/- 0.01, N = 3
62.29
cw1xxx
SE +/- 0.63, N = 12
64.02
dual
SE +/- 0.15, N = 3
73.50
dual-1024-5to4
SE +/- 0.20, N = 3
80.33
dual-1024-5to4-nosli
SE +/- 0.46, N = 3
80.55
dual-asymetric
SE +/- 0.58, N = 3
80.22
imaxion before reboot
SE +/- 0.02, N = 3
60.09
m6500
SE +/- 0.06, N = 3
32.26
mythtv
SE +/- 0.00, N = 3
11.76
mythtv-nvda
SE +/- 0.07, N = 3
35.42
mythtv-nvda-inside
SE +/- 0.17, N = 3
35.24
n751jk-495.44+fan
SE +/- 0.43, N = 3
100.00
n751jk-495.44+fan-mult
SE +/- 0.22, N = 3
26.80
quad-display
SE +/- 0.15, N = 3
58.40
single-1024-5to4
SE +/- 0.24, N = 3
80.04
single-1080p
SE +/- 0.15, N = 3
73.66
single-1440p
SE +/- 8.69, N = 6
71.25
ver
SE +/- 0.30, N = 3
73.54
20
40
60
80
100

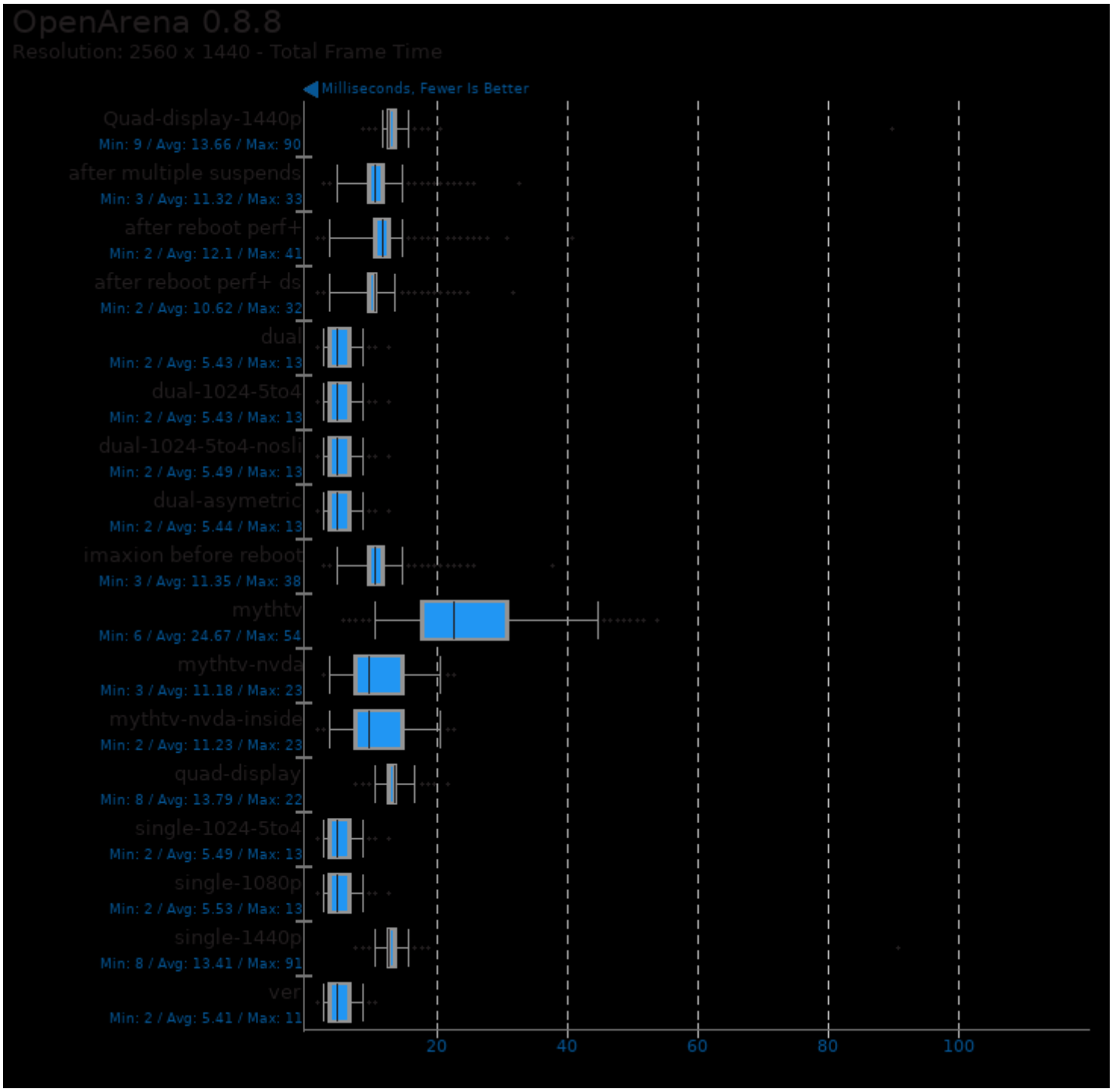
imaxion


GpuTest 0.7.0
Test: Plot3D - Resolution: 2560 x 1440 - Mode: Windowed
Points, More Is Better
Intel HD 5500
SE +/- 3.18, N = 3
3834
Lenovo-un
SE +/- 7.17, N = 3
3859
Quad-display-1440p
SE +/- 1.76, N = 3
28245
after multiple suspends
SE +/- 1.86, N = 3
13083
after reboot perf+
SE +/- 0.00, N = 3
7220
after reboot perf+ ds
SE +/- 0.00, N = 3
13122
cw1xxx
SE +/- 51.34, N = 3
12942
dual
SE +/- 1.53, N = 3
40383
dual-1024-5to4
SE +/- 32.63, N = 3
48143
dual-1024-5to4-nosli
SE +/- 9.06, N = 3
48219
dual-asymetric
SE +/- 4.70, N = 3
48431
imaxion before reboot
SE +/- 0.33, N = 3
13084
m6500
SE +/- 8.88, N = 3
16072
mythtv
SE +/- 6.89, N = 3
6894
mythtv-nvda
SE +/- 2765.47, N = 6
55564
mythtv-nvda-inside
SE +/- 1.76, N = 3
40098
n751jk-495.44+fan
SE +/- 8.09, N = 3
24644
n751jk-495.44+fan-mult
SE +/- 206.88, N = 15
24305
quad-display
SE +/- 5.00, N = 3
27769
single-1024-5to4
SE +/- 1.53, N = 3
48097
single-1080p
SE +/- 16.52, N = 3
39360
single-1440p
SE +/- 37.88, N = 3
28460
ver
SE +/- 3.76, N = 3
40439
12K
24K
36K
48K
60K

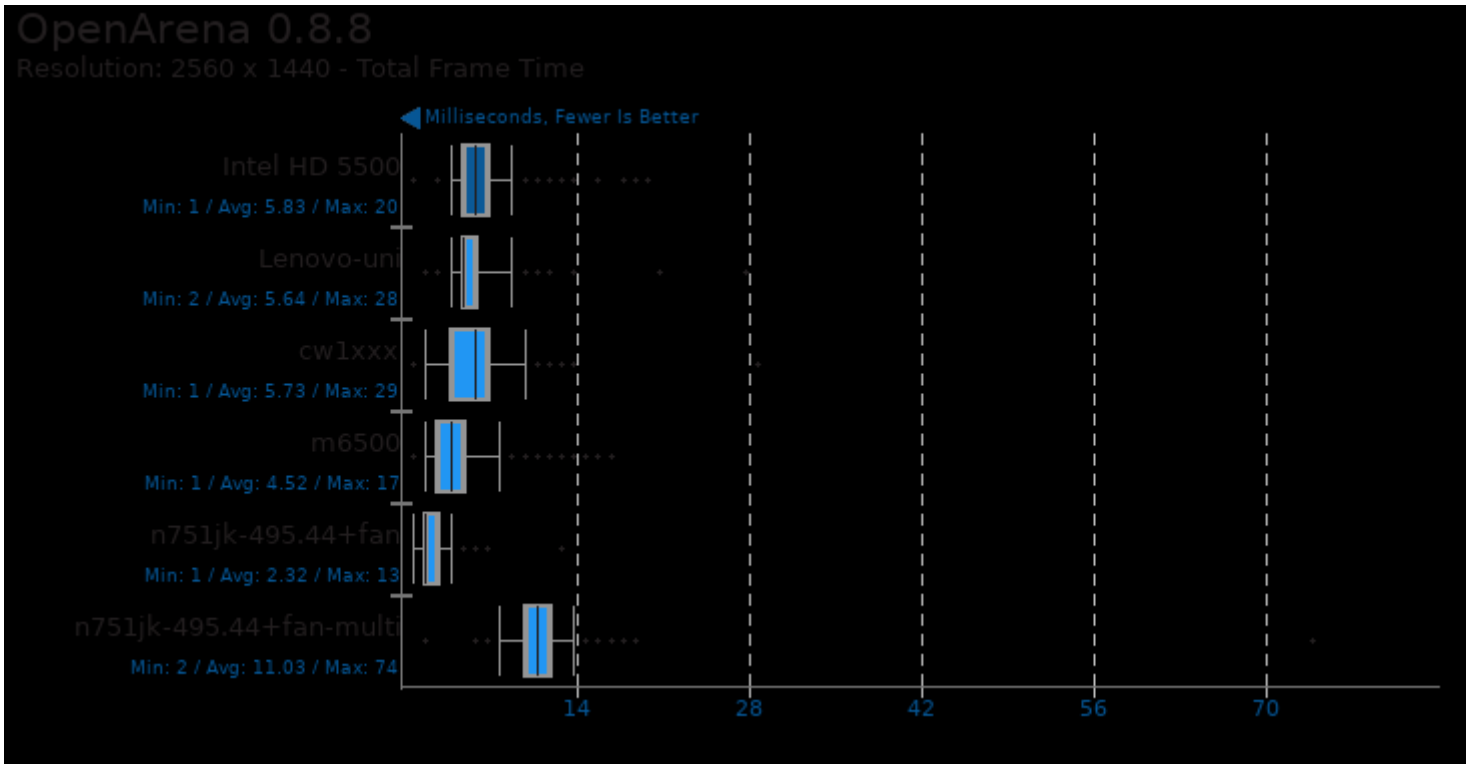
imaxion


GpuTest 0.7.0
Test: Plot3D - Resolution: 2560 x 1440 - Mode: Fullscreen
Points, More Is Better
Intel HD 5500
SE +/- 4.06, N = 3
3835
Lenovo-un
SE +/- 40.37, N = 6
4011
Quad-display-1440p
SE +/- 4.16, N = 3
28242
after multiple suspends
SE +/- 377.97, N = 6
12231
after reboot perf+
SE +/- 0.00, N = 3
7166
after reboot perf+ ds
SE +/- 284.07, N = 6
12826
cw1xxx
SE +/- 44.88, N = 3
12102
dual
SE +/- 3.00, N = 3
40384
dual-1024-5to4
SE +/- 3.61, N = 3
48113
dual-1024-5to4-nosli
SE +/- 8.51, N = 3
48218
dual-asymetric
SE +/- 51.00, N = 3
48393
imaxion before reboot
SE +/- 357.28, N = 6
12514
m6500
SE +/- 55.43, N = 3
16001
mythtv
SE +/- 20.28, N = 3
6907
mythtv-nvda
SE +/- 3195.07, N = 6
48230
mythtv-nvda-inside
SE +/- 0.00, N = 3
40105
n751jk-495.44+fan
SE +/- 8.74, N = 3
23953
n751jk-495.44+fan-mult
SE +/- 195.23, N = 12
23724
quad-display
SE +/- 19.85, N = 3
27722
single-1024-5to4
SE +/- 3.76, N = 3
48106
single-1080p
SE +/- 3.21, N = 3
39333
single-1440p
SE +/- 3.18, N = 3
28403
ver
SE +/- 3.28, N = 3
40447
10K
20K
30K
40K
50K

imaxion

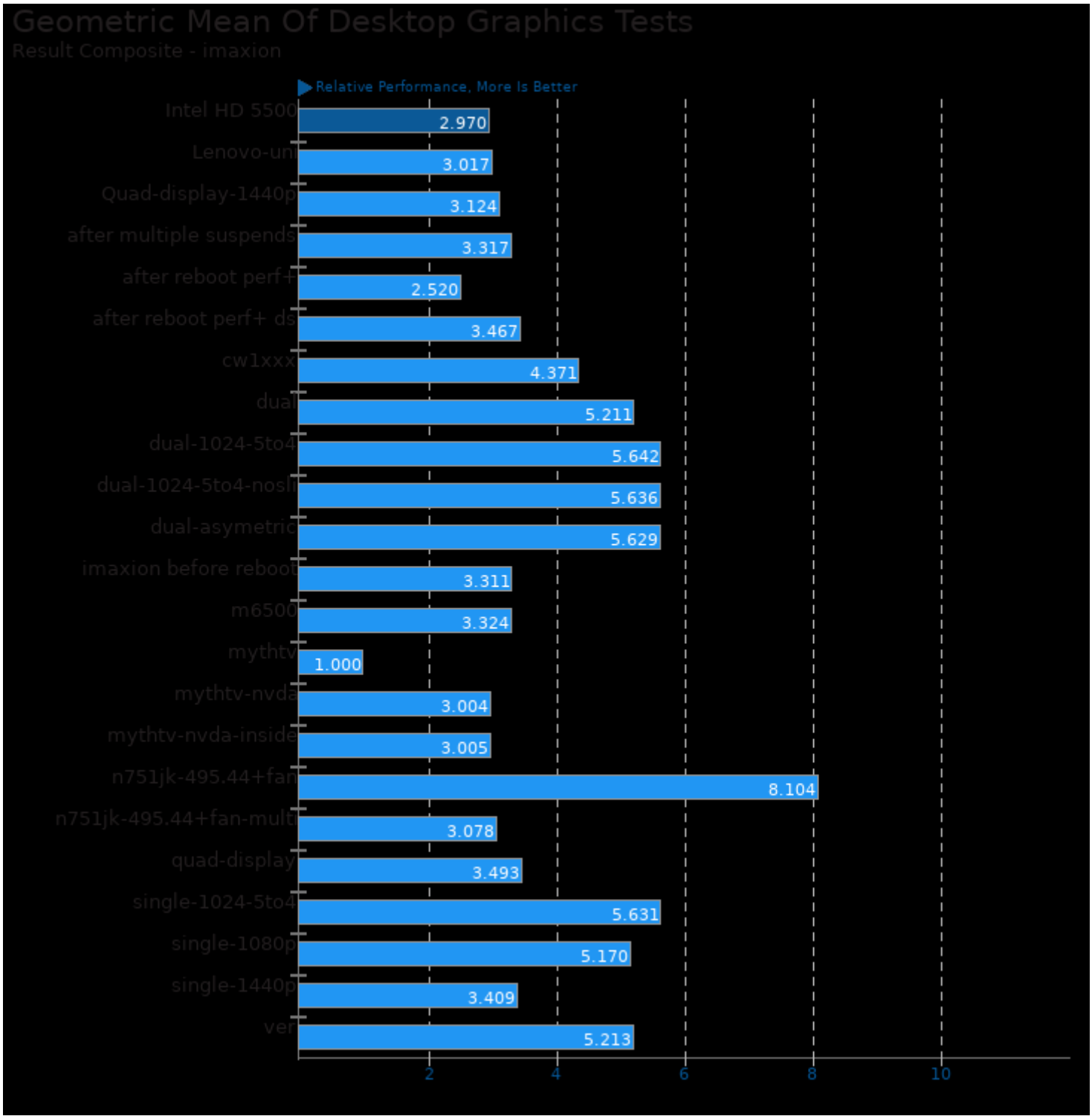

OpenArena 0.8.8
Resolution: 2560 x 1440 - Total Frame Time
Milliseconds, Fewer Is Better
Quad-display-1440p
Min: 9 / Avg: 13.66 / Max: 90
after multiple suspends
Min: 3 / Avg: 11.32 / Max: 33
after reboot perf+
Min: 2 / Avg: 12.1 / Max: 41
after reboot perf+ ds
Min: 2 / Avg: 10.62 / Max: 32
dual
Min: 2 / Avg: 5.43 / Max: 13
dual-1024-5to4
Min: 2 / Avg: 5.43 / Max: 13
dual-1024-5to4-nosli
Min: 2 / Avg: 5.49 / Max: 13
dual-asymetric
Min: 2 / Avg: 5.44 / Max: 13
imaxion before reboot
Min: 3 / Avg: 11.35 / Max: 38
mythtv
Min: 6 / Avg: 24.67 / Max: 54
mythtv-nvda
Min: 3 / Avg: 11.18 / Max: 23
mythtv-nvda-inside
Min: 2 / Avg: 11.23 / Max: 23
quad-display
Min: 8 / Avg: 13.79 / Max: 22
single-1024-5to4
Min: 2 / Avg: 5.49 / Max: 13
single-1080p
Min: 2 / Avg: 5.53 / Max: 13
single-1440p
Min: 8 / Avg: 13.41 / Max: 91
ver
Min: 2 / Avg: 5.41 / Max: 11
20
40
60
80
100

imaxion


OpenArena 0.8.8
Resolution: 2560 x 1440 - Total Frame Time
Milliseconds, Fewer Is Better
Intel HD 5500
Min: 1 / Avg: 5.83 / Max: 20
Lenovo-uni
Min: 2 / Avg: 5.64 / Max: 28
cwlxxx
Min: 1 / Avg: 5.73 / Max: 29
m6500
Min: 1 / Avg: 4.52 / Max: 17
n751jk-495.44+fan
Min: 1 / Avg: 2.32 / Max: 13
n751jk-495.44+fan-multi
Min: 2 / Avg: 11.03 / Max: 74
14
28
42
56
70

imaxion

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



Geometric mean based upon tests: pts/xonotic, pts/openarena, pts/tesseract and pts/unigine-valley

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 22:29.