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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

single-1024-5to4 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

Phoronix Test Suite

imaxion

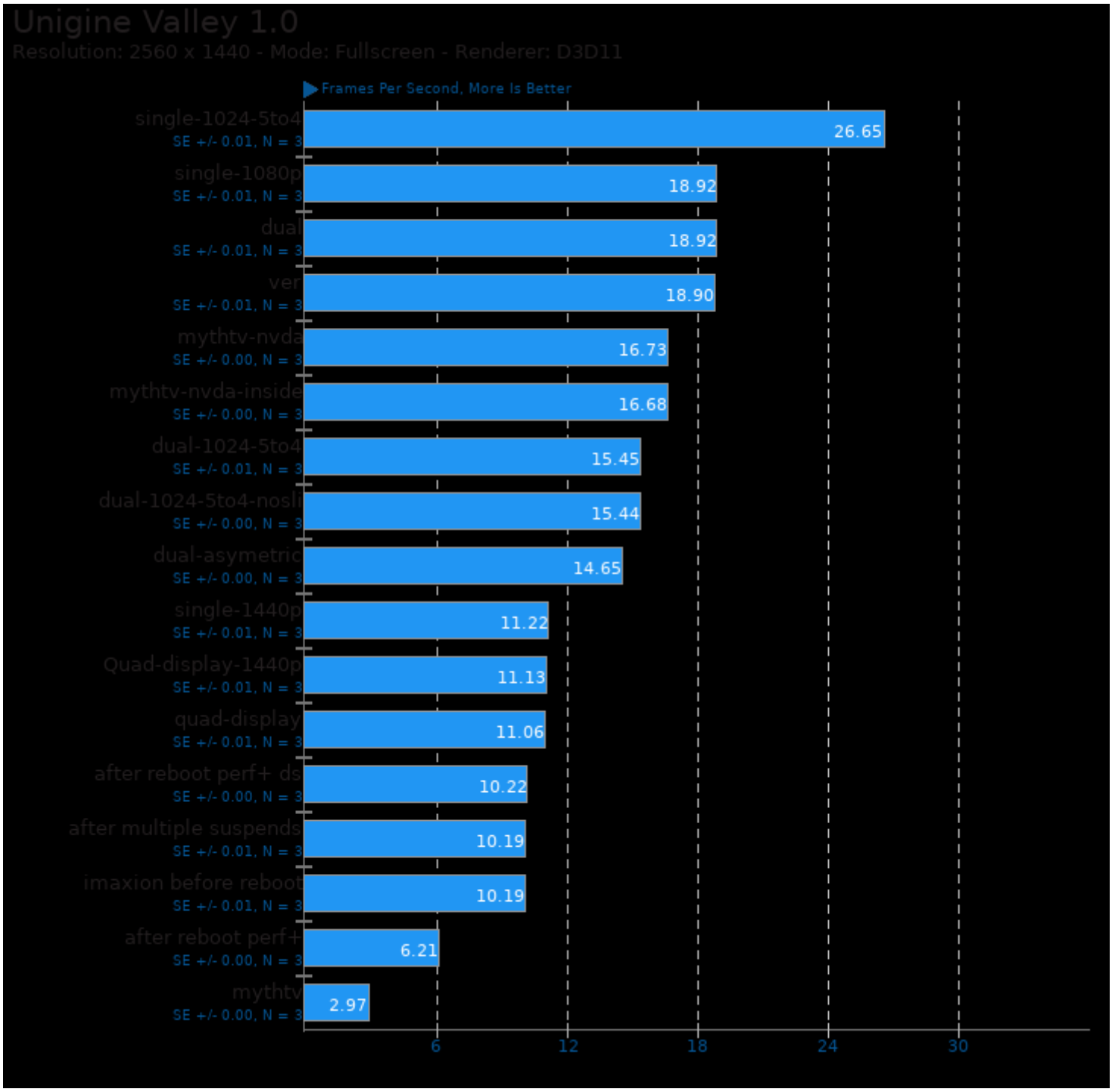
	imaxion before reboot	after reboot perf+	after reboot perf+ ds	after multiple suspen	myth htv	myth htv-nvda	myth htv-nvda-inside	dual	ver	quad-display	Quad-display-1440p	single-1440p	single-1080p	single-1024-5to4	dual-1024-5to4	dual-1024-5to4-nosli	dual-asymetric	Intel HD 5500	Lenovo-uni	cw1xxx	n751jk-495.44+fan	n751jk-495.44+fan-multi	m6500
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	38.2%	23.3%	38.3%	38.2%	11.1%	62.7%	62.5%	70.9%	70.9%	41.5%	41.7%	42.1%	70.9%	100%	57.9%	57.9%	54.9%						
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%						
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	41.126460 7	41.710292 0	64.017356 1	**100.00472 93**	26.796009 3	32.263716 9
Normalized	60.0%	40.3%	62.2%	60.1%	11.7%	35.4%	35.2%	73.5%	73.5%	58.4%	57.9%	71.2%	73.6%	80.0%	80.3%	80.5%	80.2%	41.1%	41.7%	64.0%	100%	26.7%	32.2%
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%
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	84.2%	51.2%	84.4%	84.4%	14.3%	87.1%	86.7%	94.3%	94.6%	100%	91.7%	92.0%	94.4%	95.8%	93.5%	93.5%	93.6%						
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%						
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	40.129 45	40.543 87	81.138 93	131.43 26	128.33 74	55.801 61
Normalized	56.2%	37.0%	57.5%	55.8%	17.2%	69.1%	70.0%	85.0%	85.0%	81.8%	58.2%	60.4%	83.7%	100%	98.6%	98.4%	98.4%	30.1%	30.4%	60.8%	98.6%	96.2%	41.8%
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%

Phoronix Test Suite

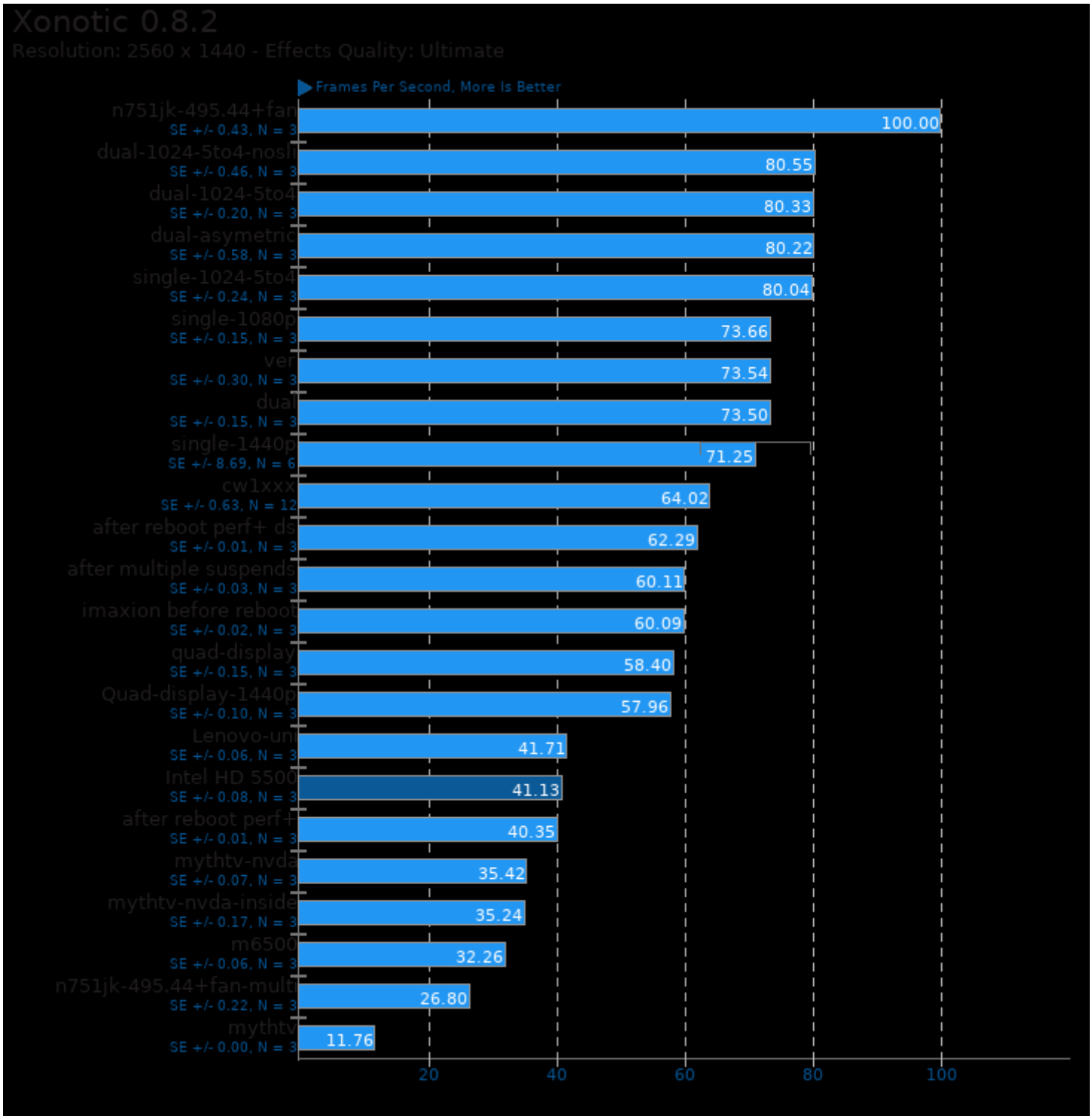
imaxion

GpuTest - Plot3D - 2560 x 1440 - Windowed	130	722	131	130	689	555	400	403	404	277	282	284	393	480	481	482	484	383	385	129	246	243	160
	84	0	22	83	4	64	98	83	39	69	45	60	60	97	43	19	31	4	9	42	44	05	72
Normalized	23.5	12.9	23.6	23.5	12.4	100	72.1	72.6	72.7	49.9	50.8	51.2	70.8	86.5	86.6	86.7	87.1	6.9%	6.95	23.2	44.3	43.7	28.9
Standard Deviation	5%	9%	2%	5%	1%	%	7%	8%	8%	8%	3%	2%	4%	6%	4%	8%	6%		%	9%	5%	4%	3%
	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	716	128	122	690	482	401	403	404	277	282	284	393	481	481	482	483	383	401	121	239	237	160
	14	6	26	31	7	30	05	84	47	22	42	03	33	06	13	18	93	5	1	02	53	24	01
Normalized	25.8	14.8	26.5	25.2	14.2	99.6	82.8	83.4	83.5	57.2	58.3	58.6	81.2	99.4	99.4	99.6	100	7.92	8.29	25.0	49.5	49.0	33.0
Standard Deviation	6%	1%	%	7%	7%	6%	7%	5%	8%	9%	6%	9%	8%	1%	2%	4%	%	%	%	1%	%	2%	6%
	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%
OpenArena - 2560 x 1440 (FPS)	86.	86.	93.	87.	39.	89.	88.	183	183	72.	73.	74.	181	180	183	182	182	171	175	173	436	91.	219
	73	50	93	90	87	53	90	.03	.20	13	00	33	.07	.40	.27	.43	.60	.1	.0	.3	.5	4	.9
Normalized	19.8	19.8	21.5	20.1	9.13	20.5	20.3	41.9	41.9	16.5	16.7	17.0	41.4	41.3	41.9	41.7	41.8	39.2	40.0	39.7	100	20.9	50.3
Standard Deviation	7%	2%	2%	4%	%	1%	7%	3%	7%	2%	2%	3%	8%	3%	9%	9%	3%	%	9%	%	%	4%	8%
	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%

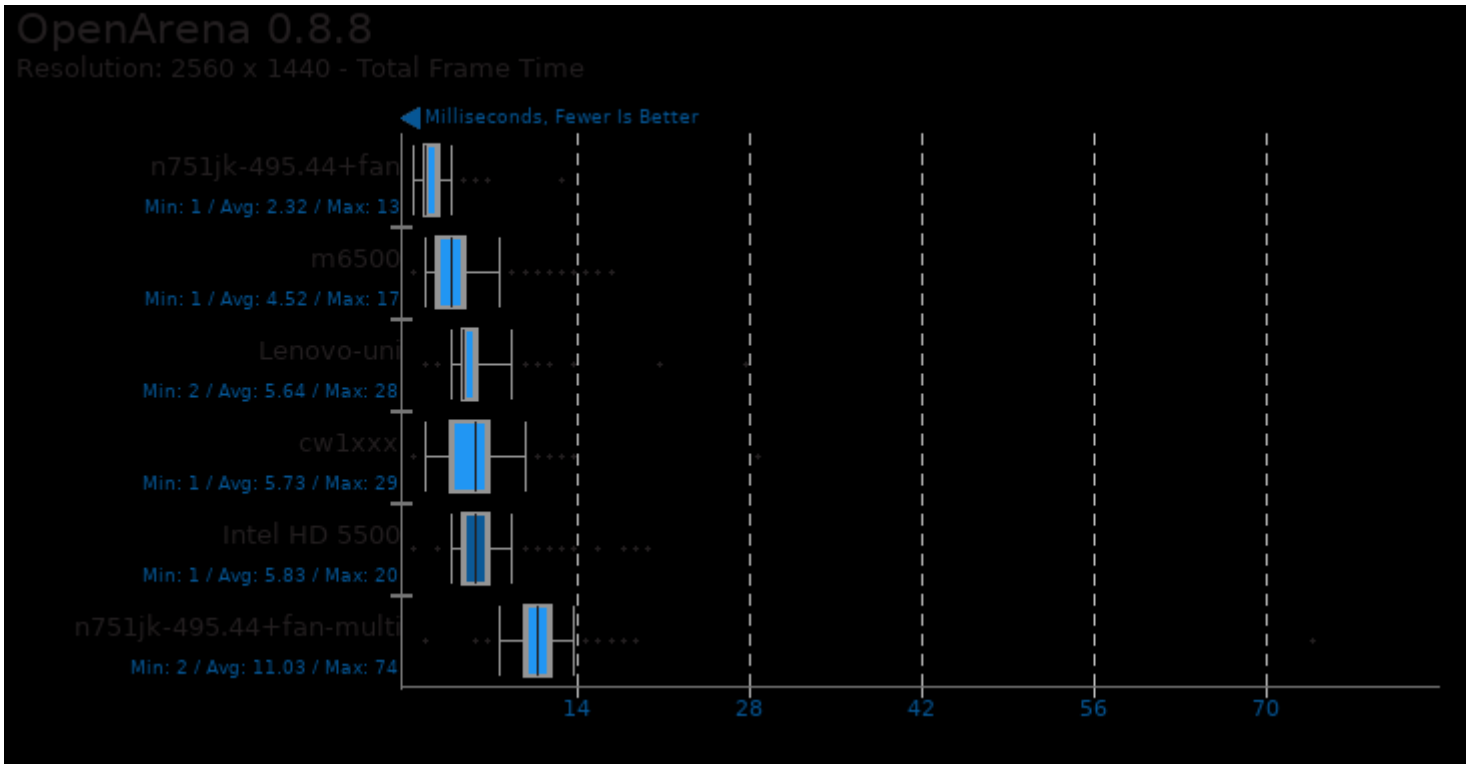
imaxion


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

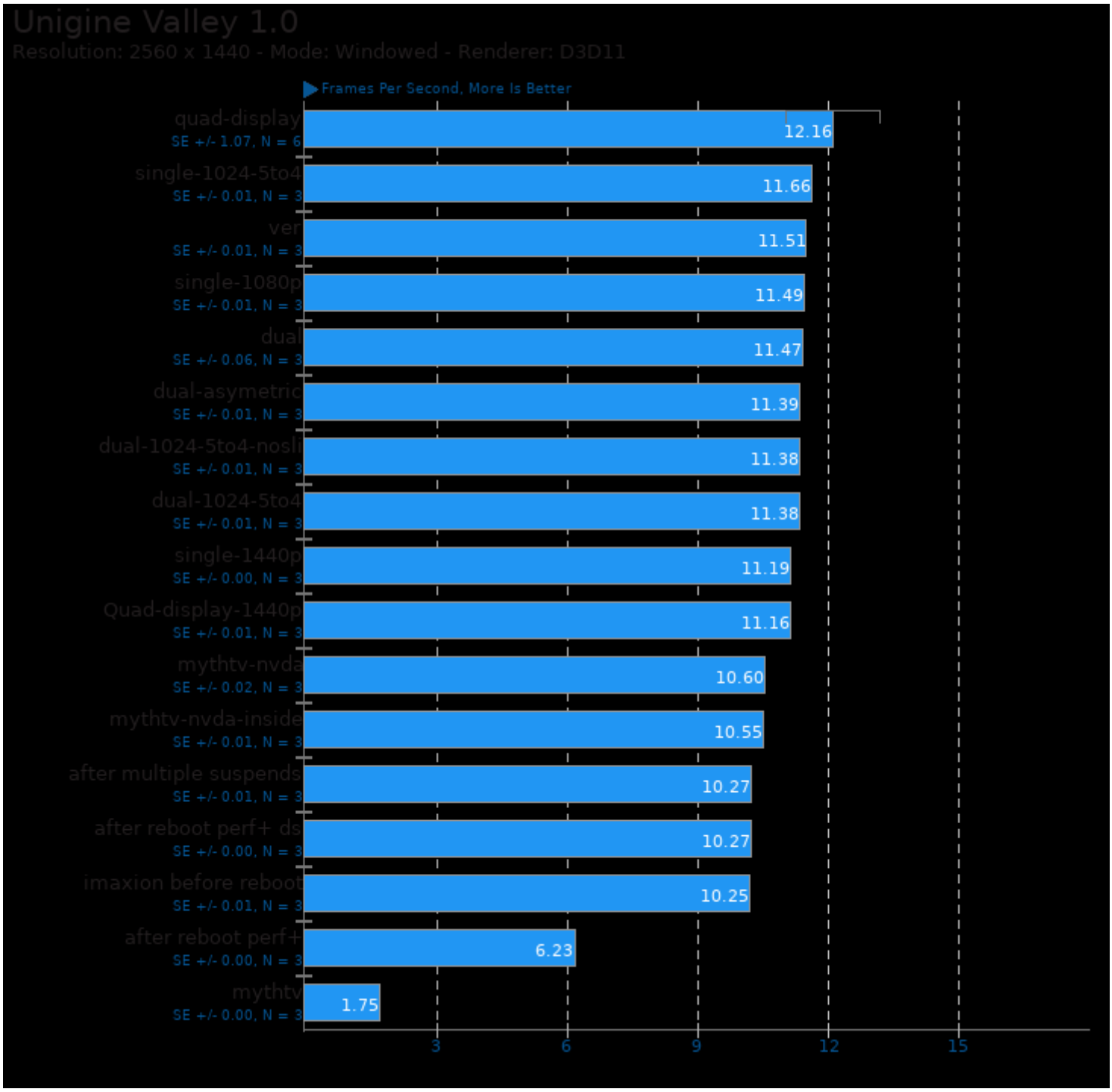
imaxion


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

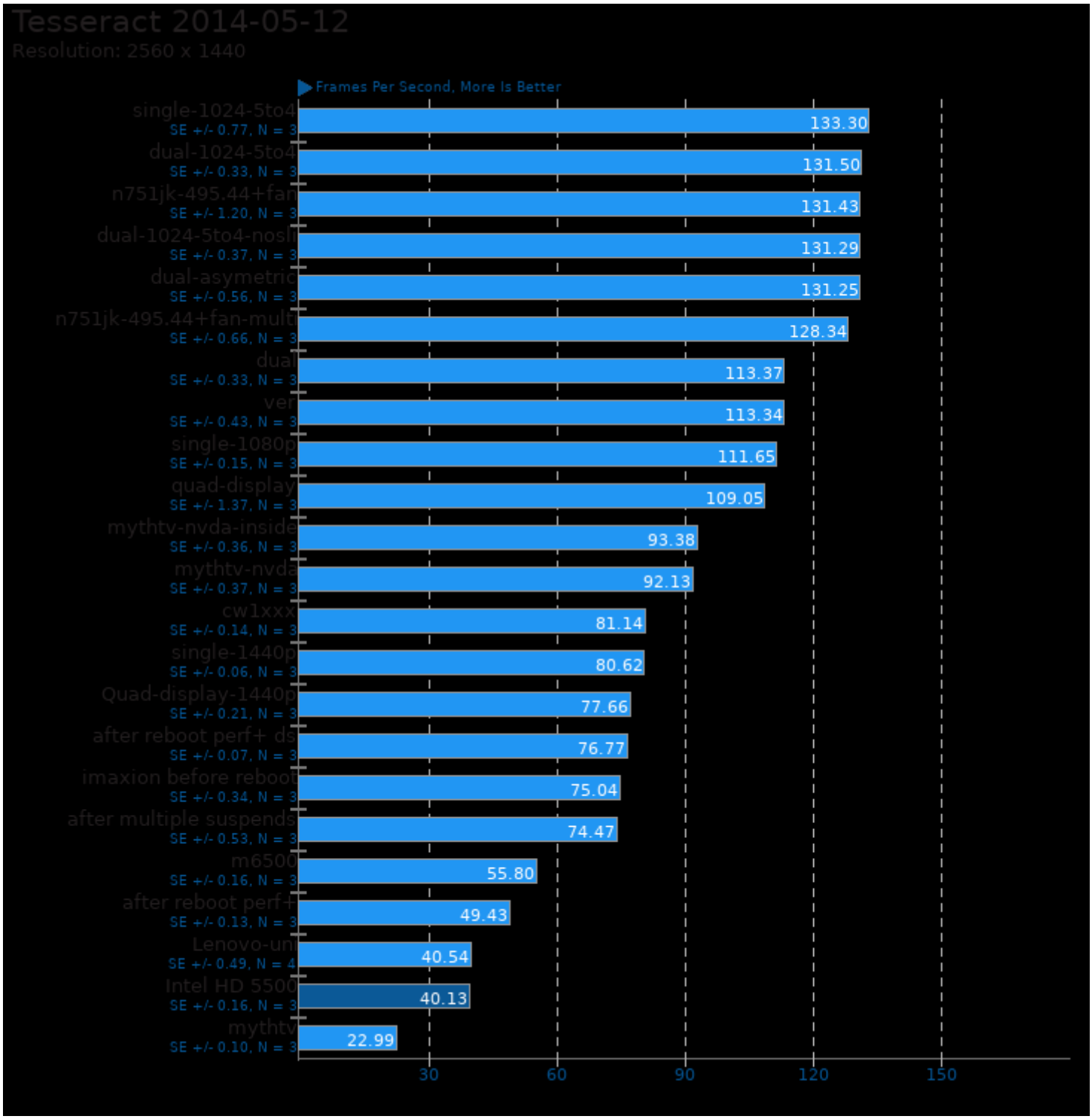
imaxion


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

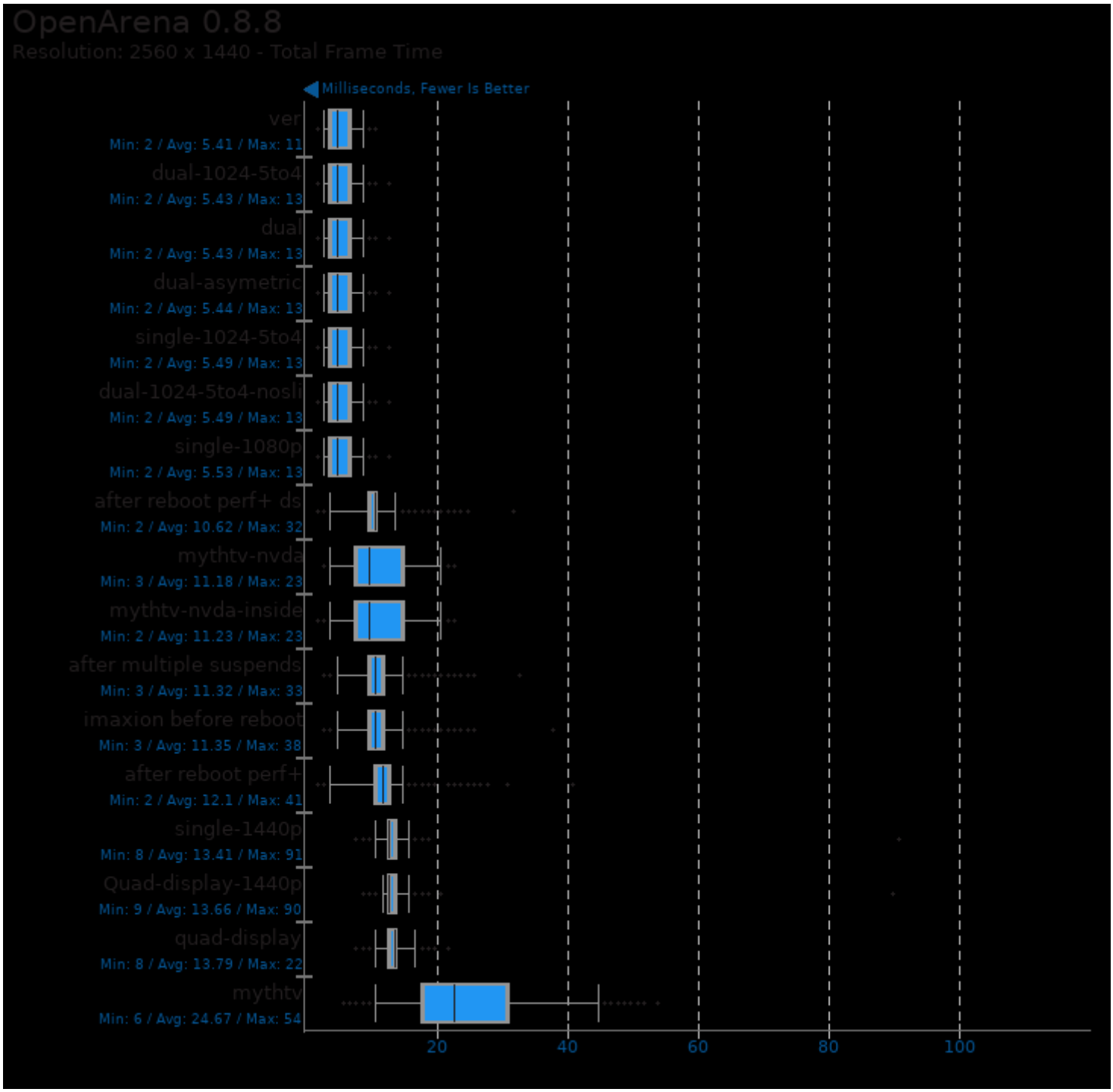
imaxion


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

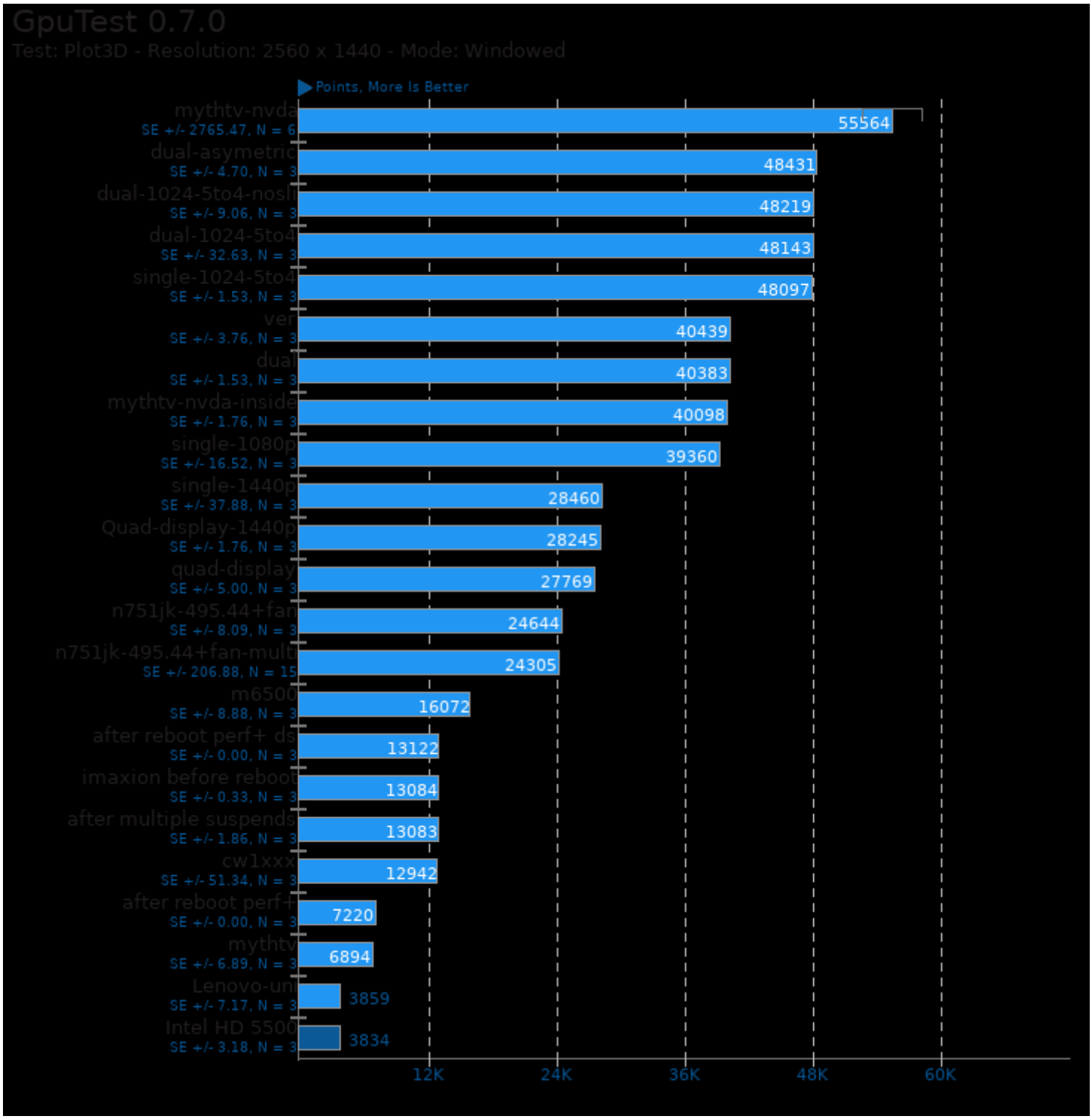
imaxion


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

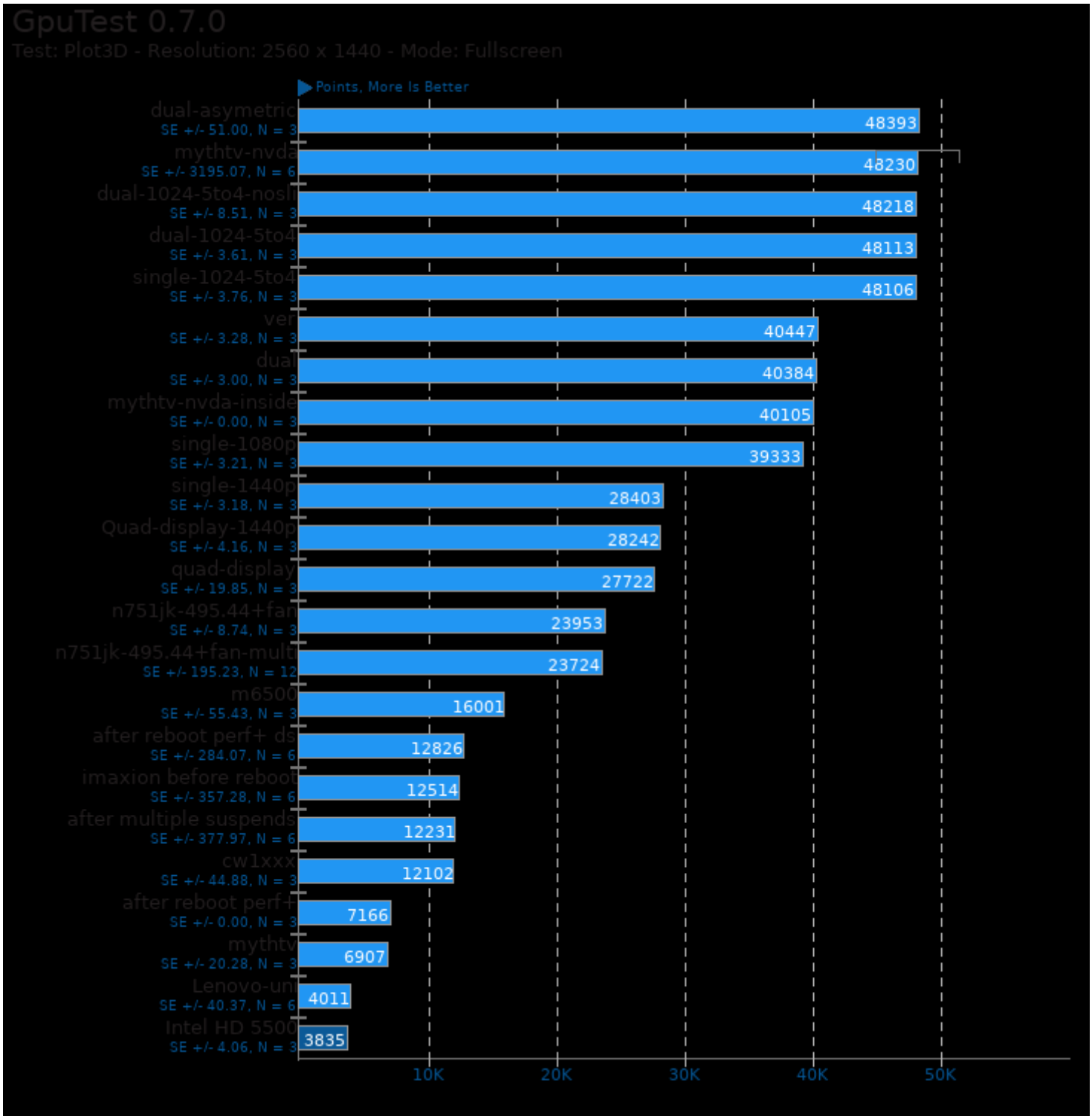
imaxion


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

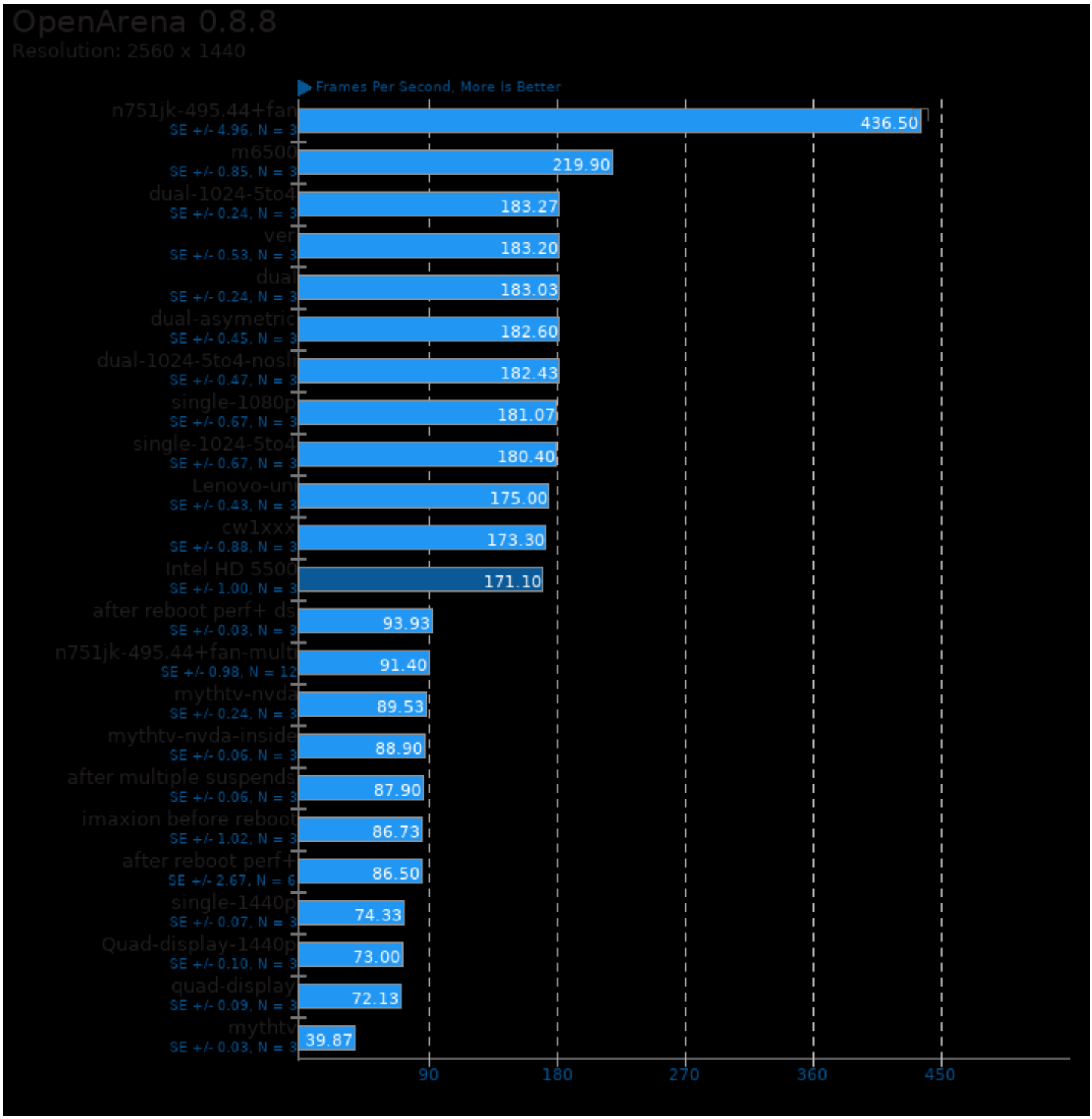
imaxion


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

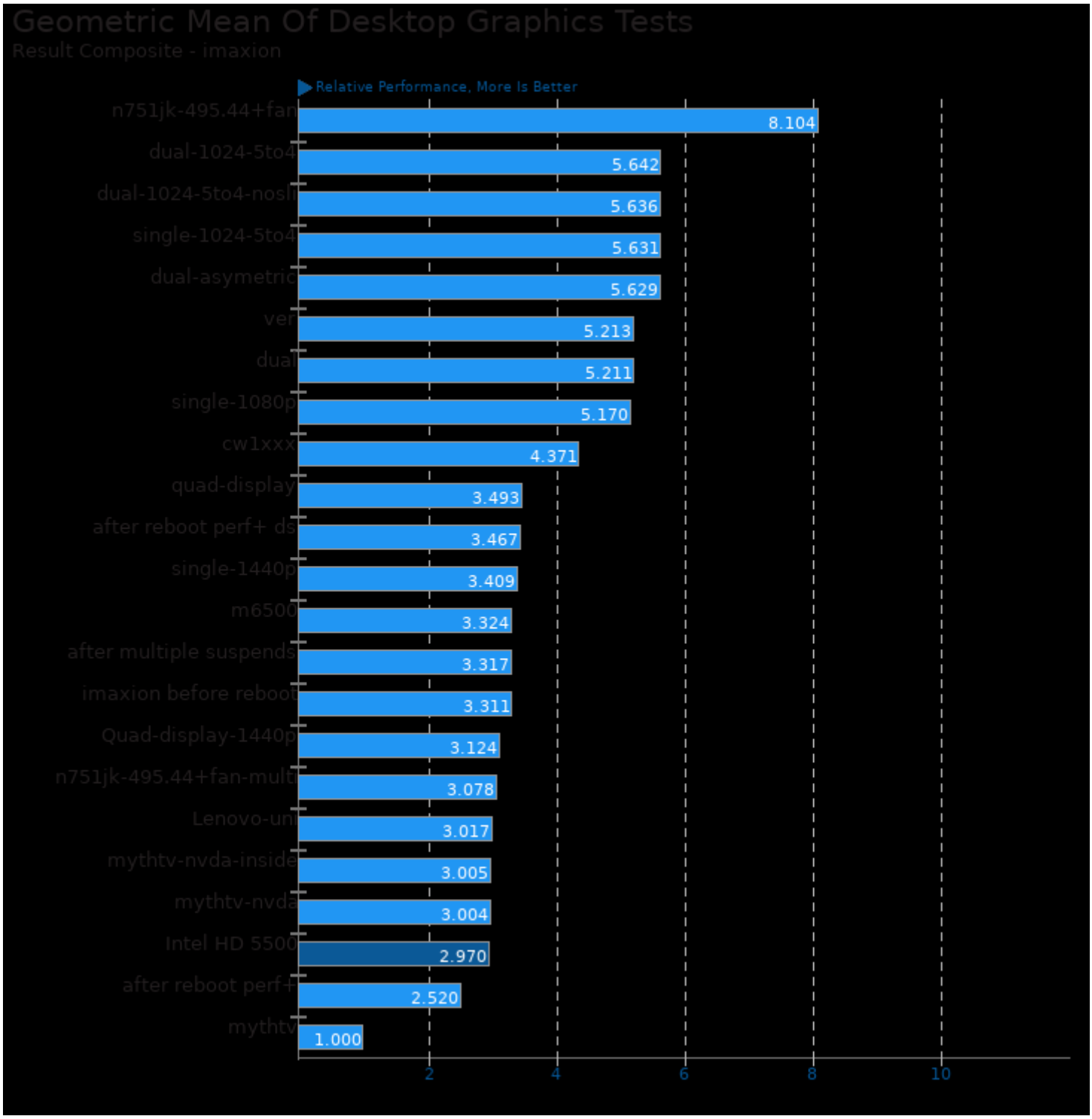
imaxion


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

imaxion


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

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 Friday, 29 March 2024 02:19.