



[www.phoronix-test-suite.com](http://www.phoronix-test-suite.com)

## Virgl1024x768

All optimizations without uniform uploads opt and shader skipping

### Automated Executive Summary

*All-opt-revised had the most wins, coming in first place for 50% of the tests.*

*Based on the geometric mean of all complete results, the fastest (All-opt-revised) was 1.015x the speed of the slowest (All-opt). Baseline was 0.994x the speed of All-opt-revised and All-opt was 0.991x the speed of Baseline.*

## Test Systems:

### All-opt

### Baseline

Processor: 5 x QEMU Virtual 2.5+ (5 Cores), Motherboard: QEMU Standard PC (Q35 + ICH9 2009) (?-20190711\_202441-buildvm-armv7-10.arm.fedoraproject.org-2.fc31 BIOS), Chipset: Intel 82G33/G31/P35/P31 +

ICH9, Memory: 8GB, Disk: 49GB, Graphics: virgl, Monitor: QEMU Monitor, Network: Red Hat Virtio device

OS: Ubuntu 20.10, Kernel: 5.8.0-40-generic (x86\_64), Display Server: X Server 1.20.9, Display Driver: modesetting 1.20.9, OpenGL: 4.3 Mesa 21.1.0-devel (git-10b3eeecd36), Compiler: GCC 10.2.0 + LLVM 11.0.0, File-System: ext4, Screen Resolution: 1440x900, System Layer: KVM QEMU

Processor Notes: CPU Microcode: 0x1000065

Python Notes: Python 2.7.18 + Python 3.8.6

Security Notes: itlb\_multihit: Not affected + I1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Vulnerable + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline STIBP: disabled RSB filling + srbs: Not affected + tsx\_async\_abort: Not affected

## All-opts-revised

Processor: 5 x QEMU Virtual 2.5+ (5 Cores), Motherboard: QEMU Standard PC (Q35 + ICH9 2009) (rel-1.12.1-0-ga5cab58e9a3f-prebuilt.qemu.org BIOS), Chipset: Intel 82G33/G31/P35/P31 + ICH9, Memory: 8GB, Disk: 49GB, Graphics: virgl, Monitor: QEMU Monitor, Network: Red Hat Virtio device

OS: Ubuntu 20.10, Kernel: 5.8.0-40-generic (x86\_64), Display Server: X Server 1.20.9, Display Driver: modesetting 1.20.9, OpenGL: 4.3 Mesa 21.1.0-devel (git-10b3eeecd36), Compiler: GCC 10.2.0 + LLVM 11.0.0, File-System: ext4, Screen Resolution: 1440x900, System Layer: KVM QEMU

Processor Notes: CPU Microcode: 0x1000065

Python Notes: Python 2.7.18 + Python 3.8.6

Security Notes: itlb\_multihit: Not affected + I1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Vulnerable + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline STIBP: disabled RSB filling + srbs: Not affected + tsx\_async\_abort: Not affected

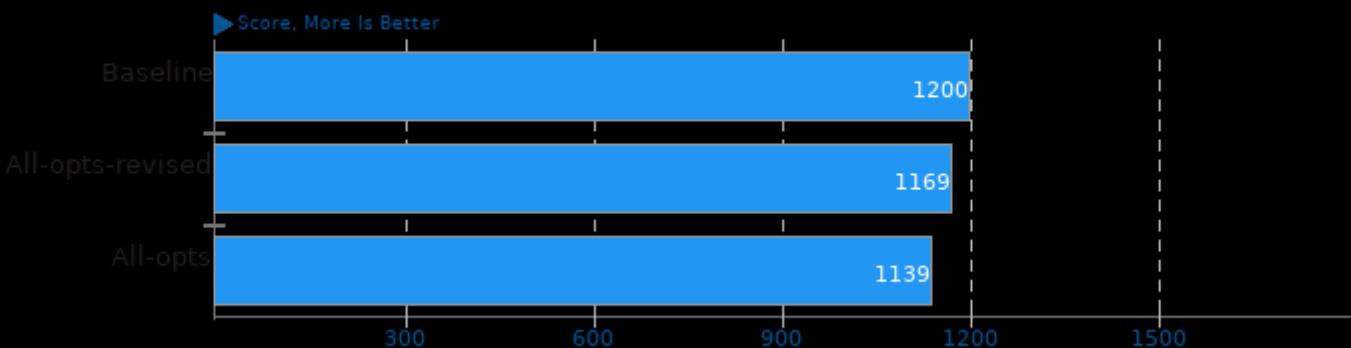
	All-opts	Baseline	All-opts-revised
<b>GLmark2 - 1024 x 768 (Score)</b>	<b>1139</b>	<b>1200</b>	1169
Normalized	94.92%	100%	97.42%
<b>GpuTest - 1024 x 768 - Fullscreen (Points)</b>	<b>6462</b>	6440	<b>6430</b>
Normalized	100%	99.66%	99.5%
Standard Deviation	1.9%	1.1%	2.4%
<b>OpenArena - 1024 x 768 (FPS)</b>	<b>86.6</b>	<b>88.4</b>	87.8
Normalized	97.96%	100%	99.32%
Standard Deviation	1.6%	0.7%	0.4%
<b>Unigine Heaven - 1024 x 768 - Fullscreen - OpenGL (FPS)</b>	59.5055	<b>58.4973</b>	<b>60.8824</b>
Normalized	97.74%	96.08%	100%
Standard Deviation	0.2%	0.4%	0.3%
<b>Unigine Sanctuary - 1024 x 768 - Fullscreen (FPS)</b>	<b>130.222</b>	132.690	<b>133.706</b>
Normalized	97.39%	99.24%	100%
Standard Deviation	4.1%	1.3%	6.2%
<b>Unigine Tropics - 1024 x 768 - Fullscreen</b>	<b>111.165</b>	111.710	<b>113.171</b>
Normalized	98.23%	98.71%	100%
Standard Deviation	0.3%	1.1%	0.2%
<b>Unigine Valley - 1024 x 768 - Fullscreen - OpenGL (FPS)</b>	39.8850	<b>39.2209</b>	<b>40.4970</b>
Normalized	98.49%	96.85%	100%

---

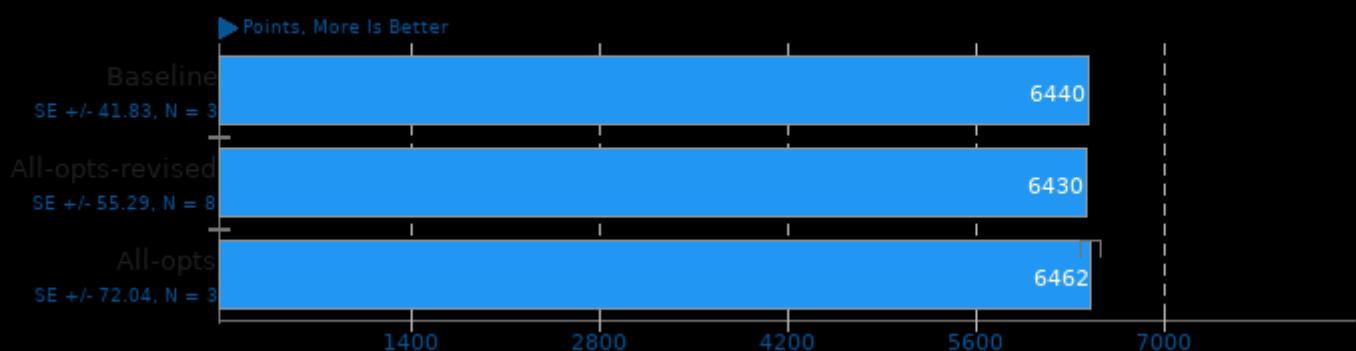
	Standard Deviation	1.7%	0.8%	0.1%
Xonotic - 1024 x 768 - Ultimate (FPS)	<b>74.2739851</b>	<b>75.3775912</b>	74.6575138	
	Normalized	98.54%	100%	99.04%
	Standard Deviation	0.5%	0.3%	0.3%

**GLmark2 2020.04**

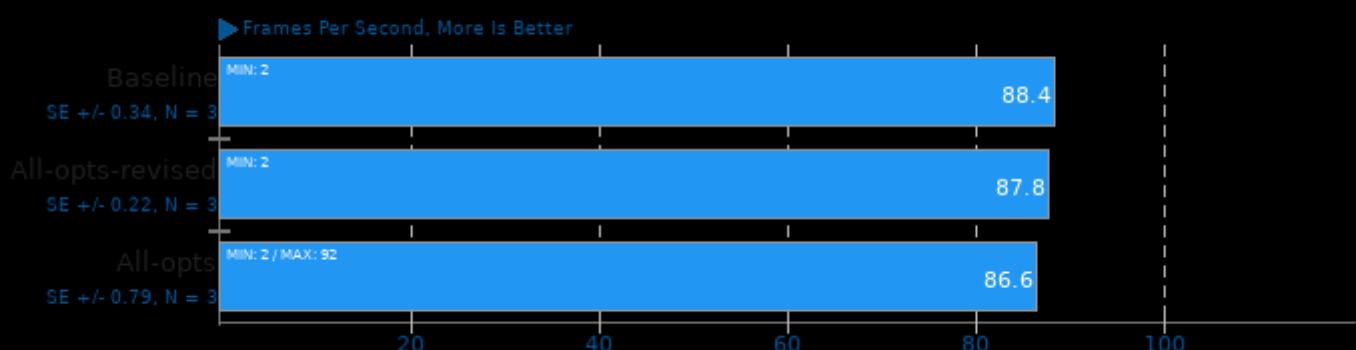
Resolution: 1024 x 768

**GpuTest 0.7.0**

Resolution: 1024 x 768 - Mode: Fullscreen

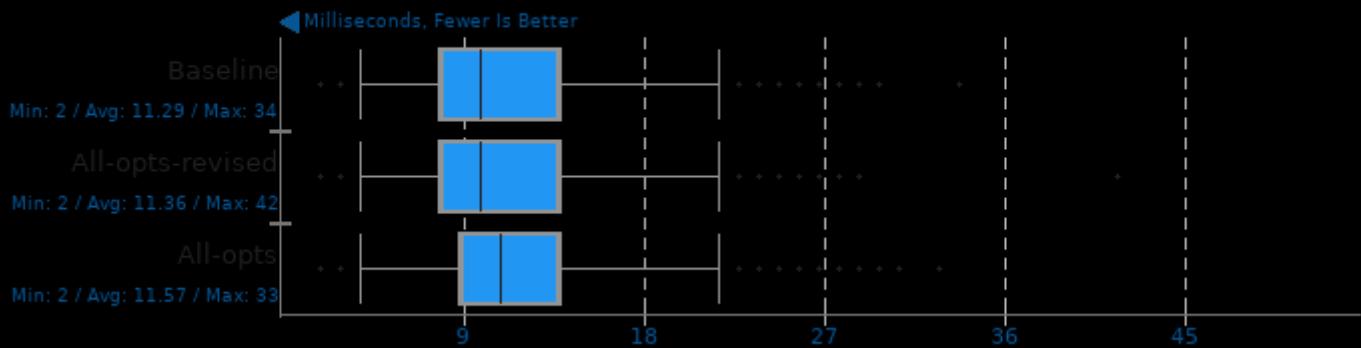
**OpenArena 0.8.8**

Resolution: 1024 x 768



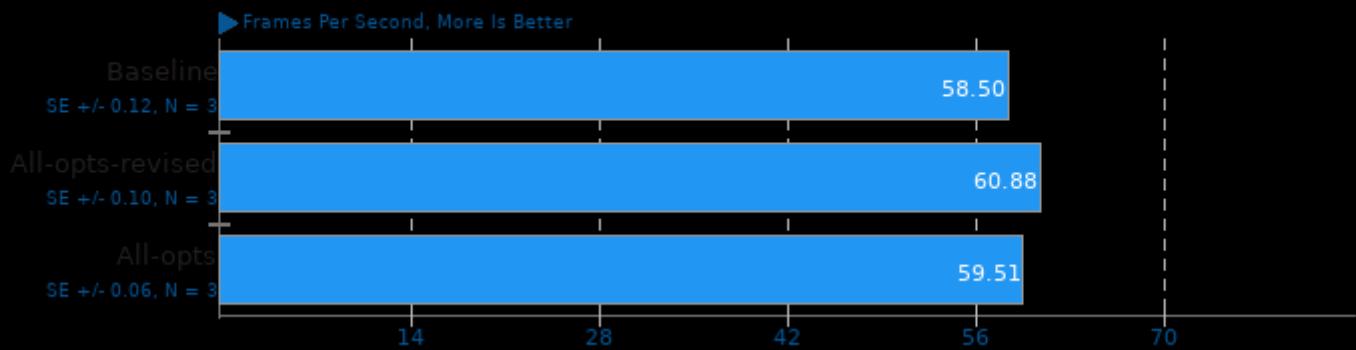
## OpenArena 0.8.8

Resolution: 1024 x 768 - Total Frame Time



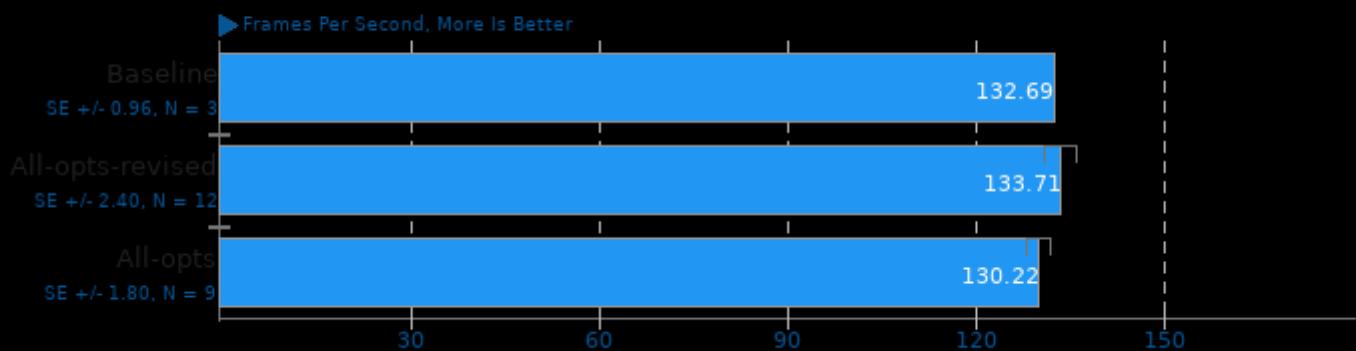
## Unigine Heaven 4.0

Resolution: 1024 x 768 - Mode: Fullscreen - Renderer: OpenGL



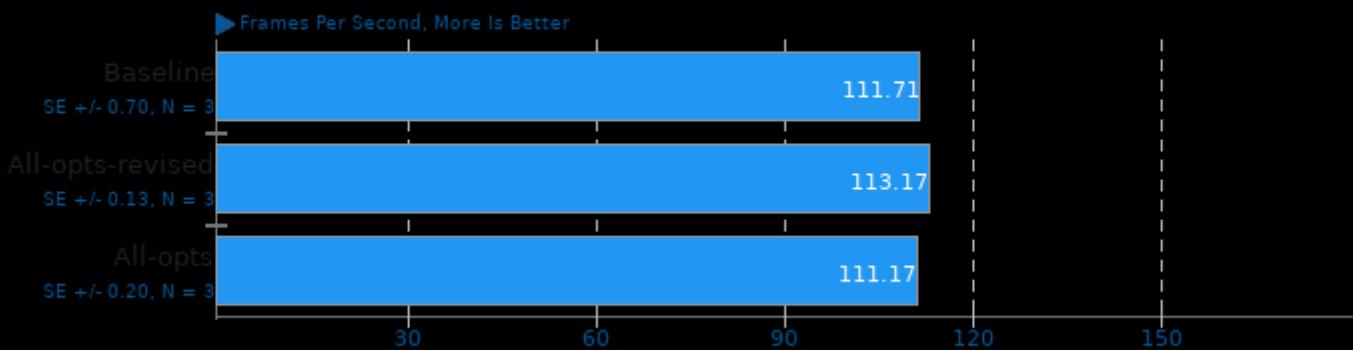
## Unigine Sanctuary 2.3

Resolution: 1024 x 768 - Mode: Fullscreen



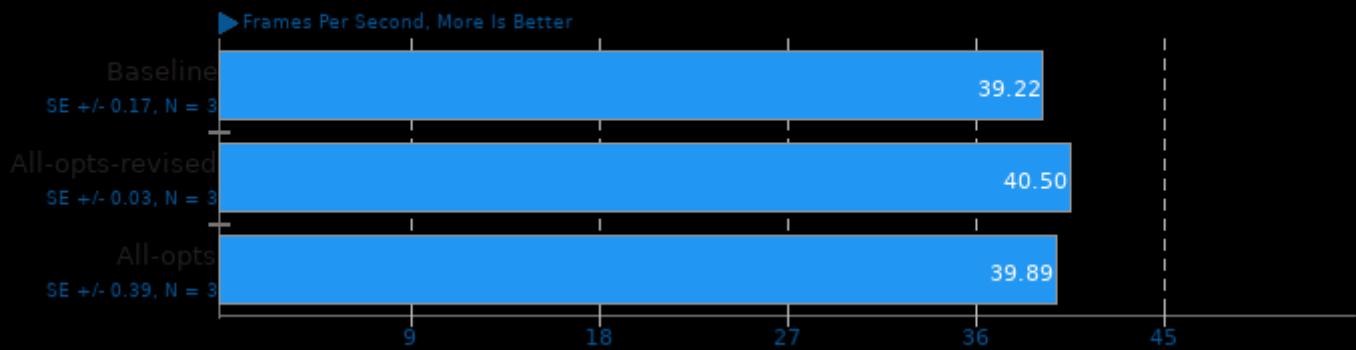
## Unigine Tropics 1.3

Resolution: 1024 x 768 - Mode: Fullscreen



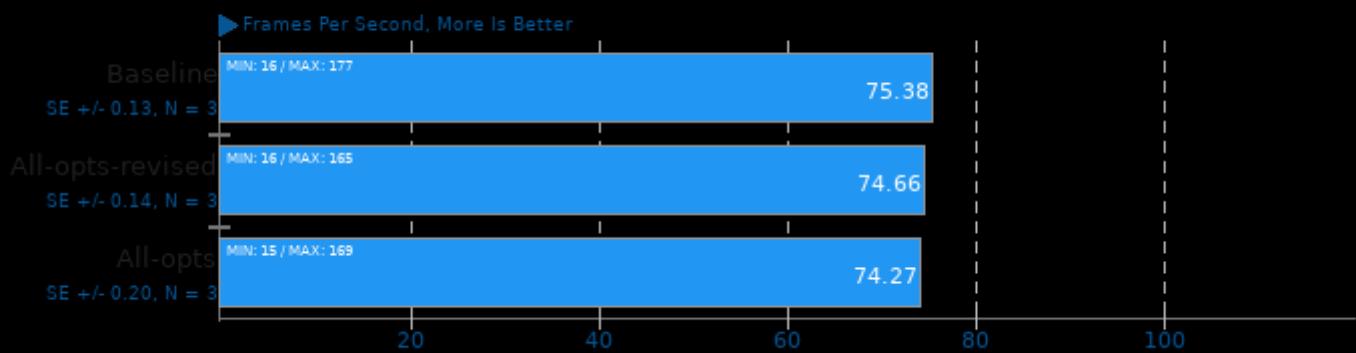
## Unigine Valley 1.0

Resolution: 1024 x 768 - Mode: Fullscreen - Renderer: OpenGL

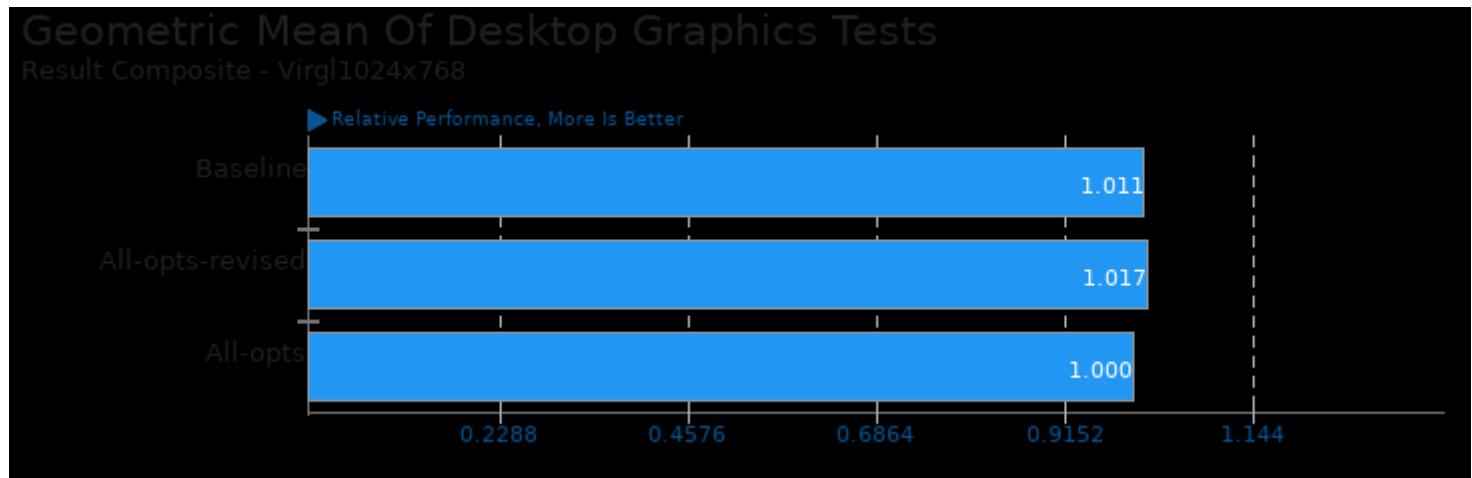


## Xonotic 0.8.2

Resolution: 1024 x 768 - Effects Quality: Ultimate



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



Geometric mean based upon tests: pts/xonotic, pts/openarena, pts/unigine-valley, pts/unigine-heaven and pts/glmark2



Geometric mean based upon tests: pts/unigine-valley, pts/unigine-heaven, pts/unigine-sanctuary and pts/unigine-tropics



Geometric mean based upon tests: pts/unigine-valley, pts/unigine-heaven, pts/unigine-sanctuary and pts/unigine-tropics

*This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 22:31.*