



## Mesa 9.2 Radeon R600 Gallium3D

Intel Core i7-3960X testing with a Radeon HD 4650 RV730 graphics card testing of Mesa 9.2 Git using R600 LLVM back-end and R600 SB shader optimization back-end. Benchmarking by Michael Larabel for a future article on phoronix.

### Test Systems:

#### Stock

Processor: Intel Core i7-3960X @ 2.54GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: Sapphire AMD Radeon HD 4650 512MB, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: Ubuntu 13.10, Kernel: 3.10.0-2-generic (x86\_64), Desktop: Xfce 4.10, Display Server: X Server 1.14.1, Display Driver: radeon 7.1.0, OpenGL: 3.1 Mesa 9.2.0-devel (git-b042aae) Gallium 0.4, Compiler: GCC 4.8 + Clang 3.3-3 + LLVM 3.3, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86\_64-linux-gnu --disable-browser-plugin --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object --enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86\_64-linux-gnu --target=x86\_64-linux-gnu --with-abi=m64

```
--with-arch-32=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre
--with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32
--with-tune=generic -v
Graphics Notes: EXA
```

## R600\_LLVM

Processor: Intel Core i7-3960X @ 1.58GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: Sapphire AMD Radeon HD 4650 512MB, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: Ubuntu 13.10, Kernel: 3.10.0-2-generic (x86\_64), Desktop: Xfce 4.10, Display Server: X Server 1.14.1, Display Driver: radeon 7.1.0, OpenGL: 3.1 Mesa 9.2.0-devel (git-b042aae) Gallium 0.4, Compiler: GCC 4.8 + Clang 3.3-3 + LLVM 3.3, File-System: ext4, Screen Resolution: 1920x1080

```
Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object
--enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdc++-debug --enable-libstdc++-time=yes
--enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64
--with-arch-32=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre
--with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32
--with-tune=generic -v
Graphics Notes: EXA
```

## R600\_DEBUG=sb

Processor: Intel Core i7-3960X @ 1.78GHz (12 Cores), Motherboard: Intel DX79SI, Chipset: Intel Xeon E5/Core, Memory: 8192MB, Disk: 64GB OCZ VERTEX, Graphics: Sapphire AMD Radeon HD 4650 512MB, Audio: Realtek ALC892, Monitor: DELL S2409W, Network: Intel 82579LM Gigabit Connection

OS: Ubuntu 13.10, Kernel: 3.10.0-2-generic (x86\_64), Desktop: Xfce 4.10, Display Server: X Server 1.14.1, Display Driver: radeon 7.1.0, OpenGL: 3.1 Mesa 9.2.0-devel (git-b042aae) Gallium 0.4, Compiler: GCC 4.8 + Clang 3.3-3 + LLVM 3.3, File-System: ext4, Screen Resolution: 1920x1080

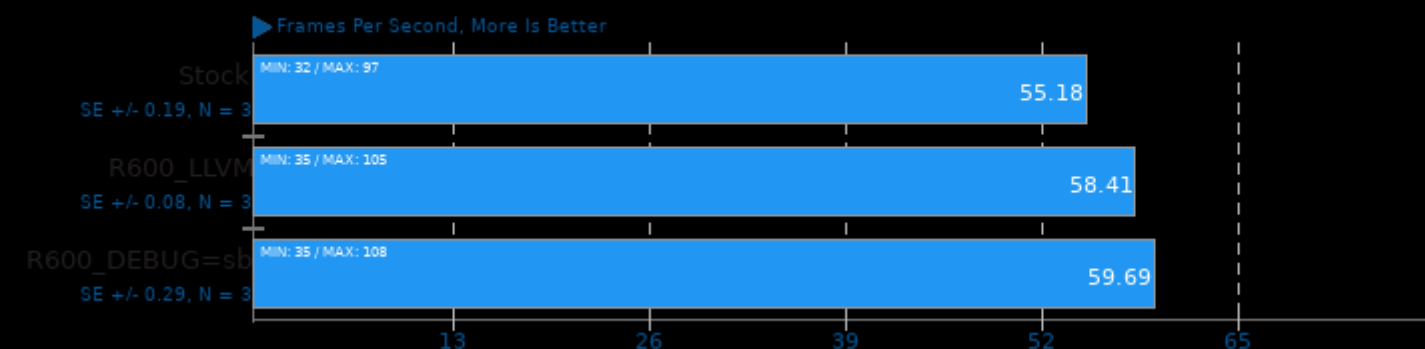
```
Compiler Notes: --build=x86_64-linux-gnu --disable-browser-plugin --disable-werror --enable-checking=release --enable-clocale=gnu --enable-gnu-unique-object
--enable-gtk-cairo --enable-java-awt=gtk --enable-java-home --enable-languages=c,c++,java,go,d,fortran,objc,obj-c++ --enable-libstdc++-debug --enable-libstdc++-time=yes
--enable-multiarch --enable-nls --enable-objc-gc --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --target=x86_64-linux-gnu --with-abi=m64
--with-arch-32=i686 --with-arch-directory=amd64 --with-ecj-jar=/usr/share/java/eclipse-ecj.jar --with-java-home=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64/jre
--with-jvm-jar-dir=/usr/lib/jvm-exports/java-1.5.0-gcj-4.8-amd64 --with-jvm-root-dir=/usr/lib/jvm/java-1.5.0-gcj-4.8-amd64 --with-multilib-list=m32,m64,mx32
--with-tune=generic -v
Graphics Notes: EXA
```

	Stock	R600_LLVM	R600_DEBUG=sb
<b>Nexuiz - 1024 x 768 - Yes - Off (FPS)</b>	<b>55.18</b>	58.41	<b>59.69</b>
Normalized	92.44%	97.86%	100%
Standard Deviation	0.6%	0.3%	0.9%
<b>Nexuiz - 1920 x 1080 - Yes - Off (FPS)</b>	<b>30.90</b>	33.68	<b>35.33</b>
Normalized	87.46%	95.33%	100%
Standard Deviation	0.1%	0.2%	0.2%
<b>OpenArena - 1920 x 1080 (FPS)</b>	<b>37.17</b>	38.60	<b>39</b>
Normalized	95.31%	98.97%	100%
Standard Deviation	0.2%	0%	0%
<b>Reaction Quake 3 - 1280 x 1024 (FPS)</b>	<b>60</b>	87.70	<b>116.30</b>
Normalized	51.59%	75.41%	100%
Standard Deviation	0%	0%	0.1%

Reaction Quake 3 - 1920 x 1080 (FPS)	60	87.70	116.27
Normalized	51.6%	75.43%	100%
Standard Deviation	0%	0.1%	0.1%
Urban Terror - 1920 x 1080 (FPS)	101.67	112.85	120.53
Normalized	84.35%	93.63%	100%
Standard Deviation	15.2%	12.6%	0.6%
Warsow - 1920 x 1080 (FPS)	34.40	39.10	43.00
Normalized	80%	90.93%	100%
Standard Deviation	1.5%	1.2%	0.5%
Xonotic - 1920 x 1080 - Low (FPS)	163.16	177.87	188.33
Normalized	86.64%	94.45%	100%
Standard Deviation	7.5%	9.3%	7.8%
Xonotic - 1920 x 1080 - High (FPS)	52.32	64.95	76.42
Normalized	68.46%	84.99%	100%
Standard Deviation	0%	0.2%	0.1%
Xonotic - 1920 x 1080 - Ultra (FPS)	29.52	38.19	47.25
Normalized	62.48%	80.83%	100%
Standard Deviation	0%	0.1%	0.1%

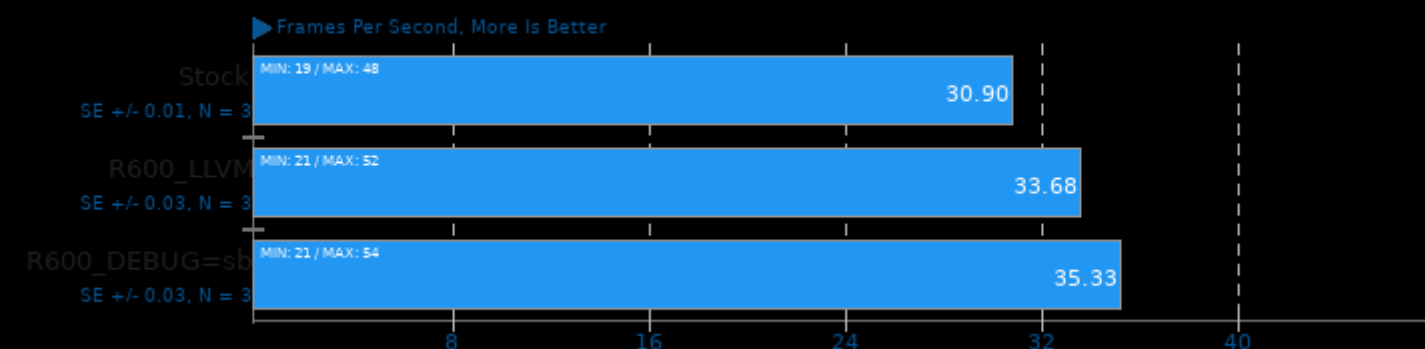
## Nexuiz 2.5.2

Resolution: 1024 x 768 - HDR: Yes - Sound: Off



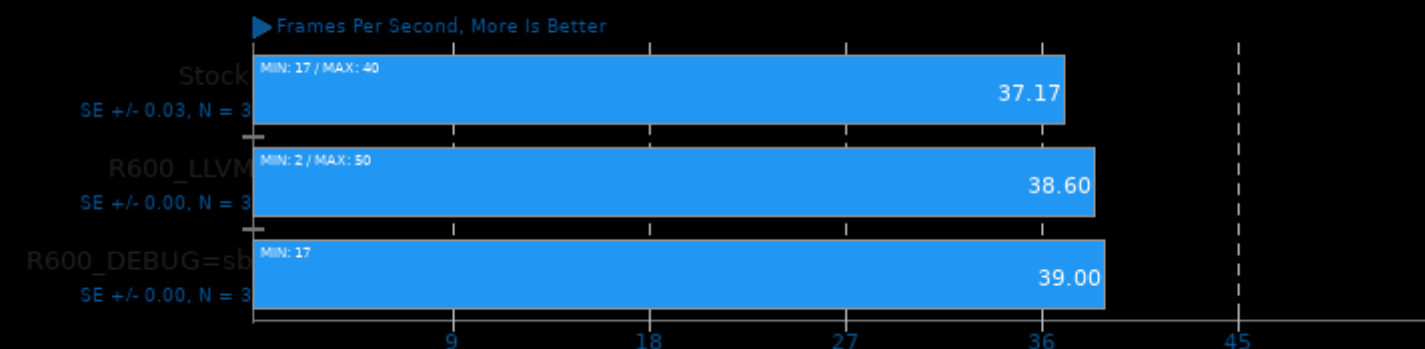
## Nexuiz 2.5.2

Resolution: 1920 x 1080 - HDR: Yes - Sound: Off



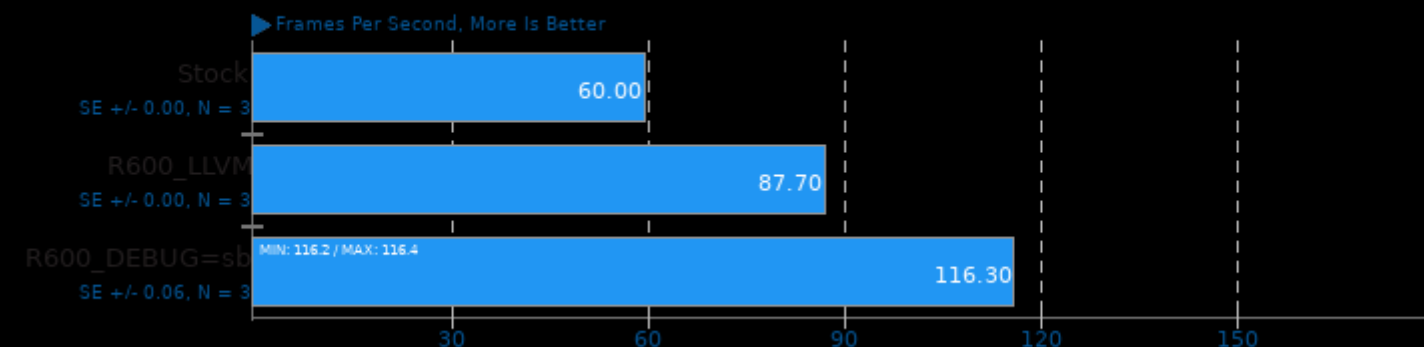
## OpenArena 0.8.8

Resolution: 1920 x 1080



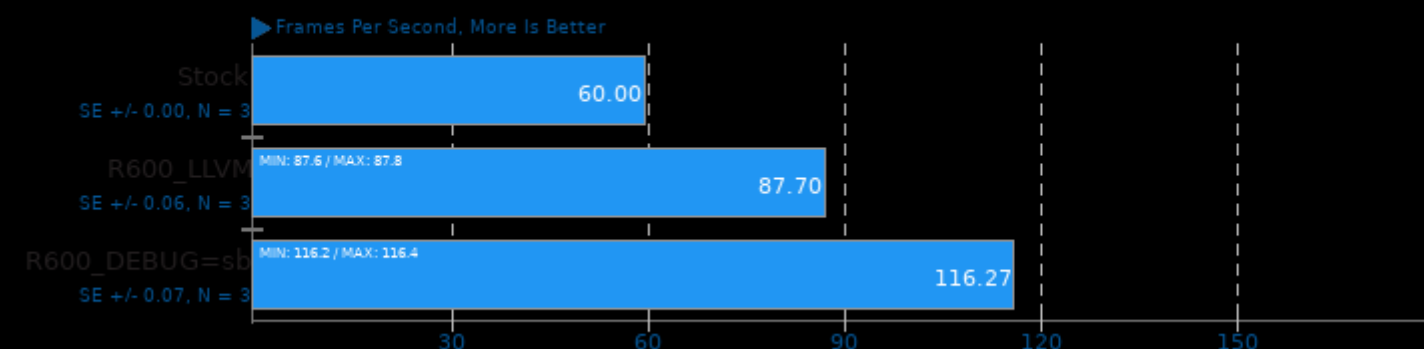
## Reaction Quake 3 1.0 Beta

Resolution: 1280 x 1024



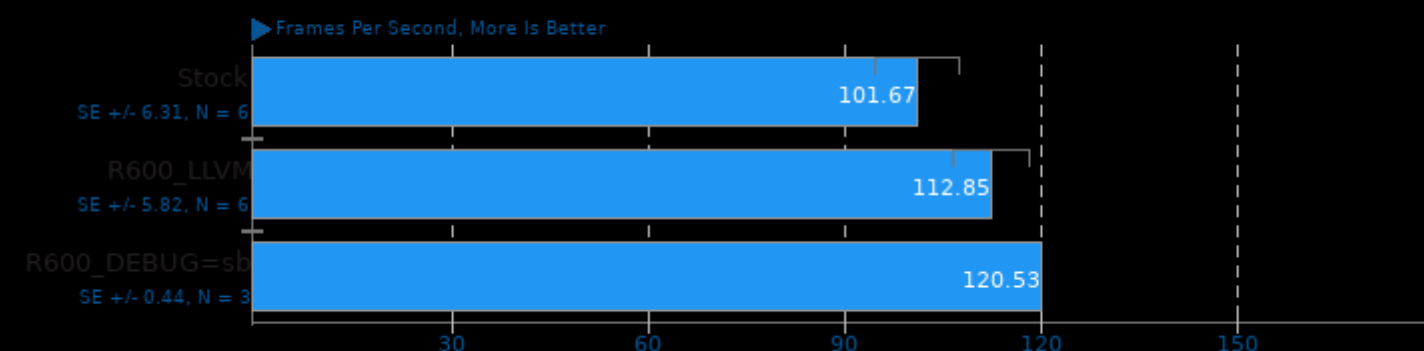
## Reaction Quake 3 1.0 Beta

Resolution: 1920 x 1080



## Urban Terror 4.2.013

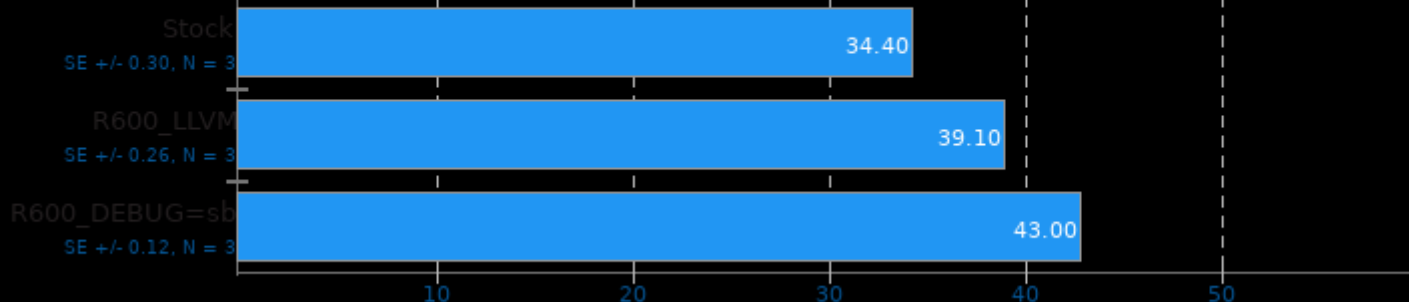
Resolution: 1920 x 1080



## Warsow 1.0

Resolution: 1920 x 1080

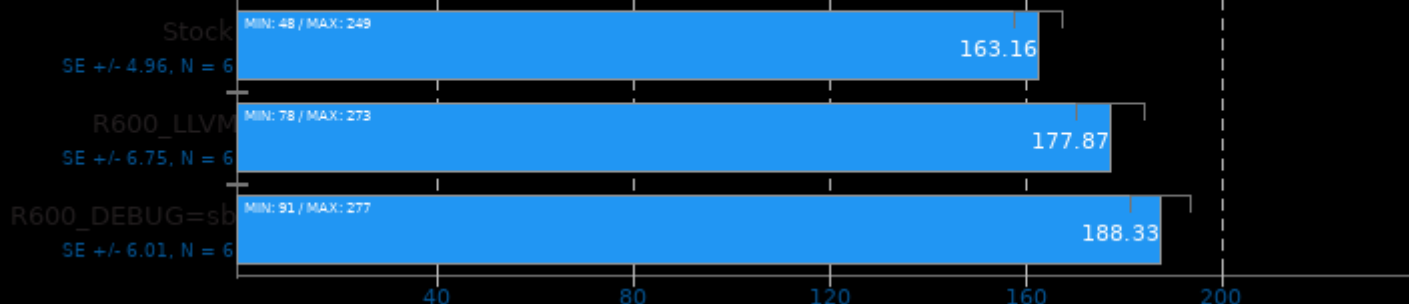
► Frames Per Second, More Is Better



## Xonotic 0.7

Resolution: 1920 x 1080 - Effects Quality: Low

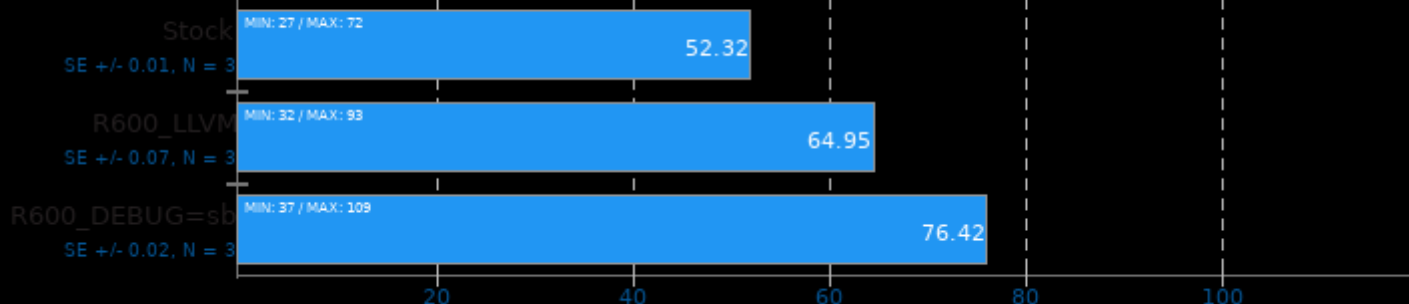
► Frames Per Second, More Is Better



## Xonotic 0.7

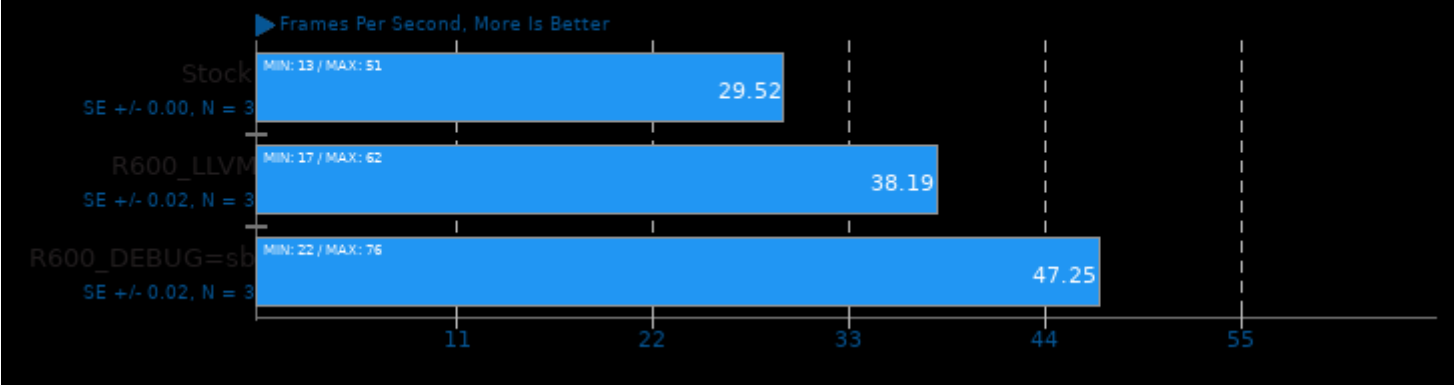
Resolution: 1920 x 1080 - Effects Quality: High

► Frames Per Second, More Is Better

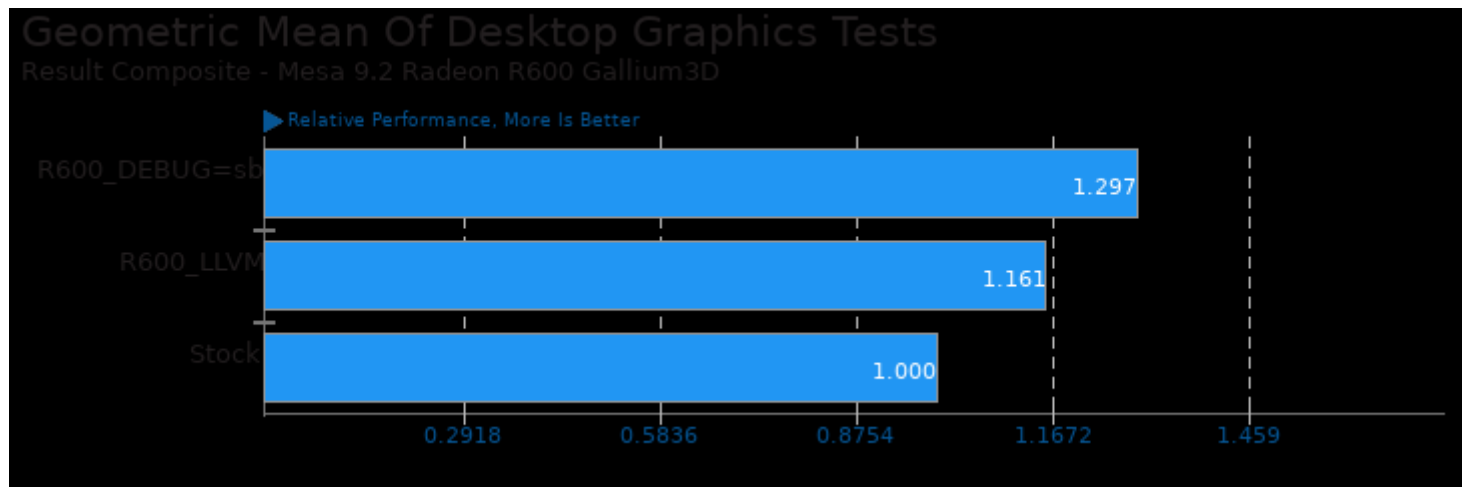


## Xonotic 0.7

Resolution: 1920 x 1080 - Effects Quality: Ultra



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



Geometric mean based upon tests: pts/xonotic and pts/openarena

*This file was automatically generated via the Phoronix Test Suite benchmarking software on Monday, 30 December 2024 21:00.*