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## **archlinux51511-1-clear2**

AMD Ryzen 9 5950X 16-Core testing with a MSI MEG X570S ACE MAX (MS-7D50) v1.0 (1.00 BIOS) and Gigabyte NVIDIA GeForce RTX 3080 Ti 12GB on Arch Linux via the Phoronix Test Suite.

### **Test Systems:**

#### **archlinux5.15.11-1-clear2**

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: MSI MEG X570S ACE MAX (MS-7D50) v1.0 (1.00 BIOS), Chipset: AMD Starship/Matisse, Memory: 64GB, Disk: 2 x 1024GB KINGSTON SKC3000S1024G + 63GB Extreme + 0GB Multi-Reader-0 + 0GB Multi-Reader-1 + 0GB Multi-Reader-2 + 0GB Multi-Reader-3, Graphics: Gigabyte NVIDIA GeForce RTX 3080 Ti 12GB, Audio: NVIDIA GA102 HD Audio, Network: Realtek RTL8125 2.5GbE

OS: Arch Linux, Kernel: 5.15.11-1-clear (x86\_64), Display Server: X Server, Display Driver: NVIDIA, Compiler: GCC 11.1.0 + Clang 13.0.0 + LLVM 13.0.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: always

Compiler Notes: --disable-libssp --disable-libstdc++-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release

```
--enable-clocale-gnu      --enable-default-pie      --enable-default-ssp      --enable-gnu-indirect-function      --enable-gnu-unique-object      --enable-install-liblberity
--enable-languages=c,c++,ada,fortran,go,ito,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man
--with-isl --with-linker-hash-style=gnu
```

Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa201016

Java Notes: OpenJDK Runtime Environment (build 11.0.13+8)

Python Notes: Python 3.10.1

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 retroline IBPB: conditional IBRS\_FW STIBP: always-on RSB filling + srbd: Not affected + tsx\_async\_abort: Not affected

## archlinux5.15.11-1-clear2

<b>WebP Image Encode - Default (Encode Time - sec)</b>	1.128
Standard Deviation	1.9%
<b>WebP Image Encode - Quality 100 (Encode Time - sec)</b>	1.748
Standard Deviation	1.5%
<b>WebP Image Encode - Q.1.L (Encode Time - sec)</b>	12.480
Standard Deviation	2.1%
<b>WebP Image Encode - Q.1.H.C (Encode Time - sec)</b>	5.387
Standard Deviation	0.3%
<b>WebP Image Encode - Q.1.L.H.C (Encode Time - sec)</b>	26.738
Standard Deviation	0.3%
<b>Java SciMark - Composite (Mflops)</b>	3307
Standard Deviation	1.1%
<b>Java SciMark - Monte Carlo (Mflops)</b>	1868
Standard Deviation	1.6%
<b>Java SciMark - F.F.T (Mflops)</b>	2706
Standard Deviation	1.3%
<b>Java SciMark - S.M.M (Mflops)</b>	3084
Standard Deviation	1.5%
<b>Java SciMark - D.L.M.F (Mflops)</b>	6624
Standard Deviation	0.8%
<b>Java SciMark - J.S.O.R (Mflops)</b>	2252
Standard Deviation	1.1%
<b>Bork File Encrypter - F.E.T (sec)</b>	6.244
Standard Deviation	1.5%
<b>Java Gradle Build - Reactor (sec)</b>	215.267
Standard Deviation	6.4%
<b>DaCapo Benchmark - H2 (msec)</b>	2042
Standard Deviation	3.5%
<b>DaCapo Benchmark - Jython (msec)</b>	2870
Standard Deviation	0.6%
<b>DaCapo Benchmark - Tradesoap (msec)</b>	2501
Standard Deviation	3.7%
<b>DaCapo Benchmark - Tradebeans (msec)</b>	2266
Standard Deviation	2.3%
<b>Renaissance - Scala Dotty (ms)</b>	548.9
Standard Deviation	1.5%
<b>Renaissance - Rand Forest (ms)</b>	469.7
Standard Deviation	1.3%
<b>Renaissance - ALS Movie Lens (ms)</b>	4581
Standard Deviation	1.2%
<b>Renaissance - Apache Spark ALS (ms)</b>	1198

	Standard Deviation	1.4%
<b>Renaissance - Apache Spark Bayes (ms)</b>	1210	Standard Deviation 0.4%
		<b>Renaissance - Savina Reactors.IO (ms)</b> 5336
	Standard Deviation	4.1%
	<b>Renaissance - A.S.P (ms)</b>	2396
	Standard Deviation	0.5%
	<b>Renaissance - F.H.R (ms)</b>	2030
	Standard Deviation	1.4%
	<b>Renaissance - I.M.D.S (ms)</b>	2486
	Standard Deviation	1.5%
	<b>Renaissance - A.U.C.T (ms)</b>	9782
	Standard Deviation	0.7%
	<b>Renaissance - G.A.U.J.F (ms)</b>	958.9
	Standard Deviation	0.7%
	<b>JPEG XL libjxl - PNG - 5 (MP/s)</b>	67.01
	Standard Deviation	0.1%
	<b>JPEG XL libjxl - PNG - 7 (MP/s)</b>	12.28
	Standard Deviation	0.3%
	<b>JPEG XL libjxl - PNG - 8 (MP/s)</b>	1.26
	Standard Deviation	0%
	<b>JPEG XL libjxl - JPEG - 5 (MP/s)</b>	126.78
	Standard Deviation	0.2%
	<b>JPEG XL libjxl - JPEG - 7 (MP/s)</b>	126.33
	Standard Deviation	0.5%
	<b>JPEG XL libjxl - JPEG - 8 (MP/s)</b>	38.50
	Standard Deviation	0.1%
	<b>JPEG XL Decoding libjxl - 1 (MP/s)</b>	81.89
	Standard Deviation	0.4%
	<b>JPEG XL Decoding libjxl - All (MP/s)</b>	280.10
	Standard Deviation	0.9%
	<b>LibRaw - P.P.B (Mpix/sec)</b>	53.96
	Standard Deviation	0.8%
	<b>GraphicsMagick - Swirl (Iterations/min)</b>	1060
	Standard Deviation	0.4%
	<b>GraphicsMagick - Rotate (Iterations/min)</b>	1255
	Standard Deviation	0.3%
	<b>GraphicsMagick - Sharpen (Iterations/min)</b>	223
	Standard Deviation	0%
	<b>GraphicsMagick - Enhanced (Iterations/min)</b>	424
	Standard Deviation	0.1%
	<b>GraphicsMagick - Resizing (Iterations/min)</b>	1704
	Standard Deviation	0%
	<b>GraphicsMagick - Noise-Gaussian (Iterations/min)</b>	467
	Standard Deviation	0.1%
	<b>GraphicsMagick - HWB Color Space (Iterations/min)</b>	1365
	Standard Deviation	0.6%
	<b>dav1d - Chimera 1080p (FPS)</b>	1100
	Standard Deviation	0.4%
	<b>dav1d - Summer Nature 4K (FPS)</b>	333.09
	Standard Deviation	0.3%
	<b>dav1d - S.N.1 (FPS)</b>	1042
	Standard Deviation	0.5%

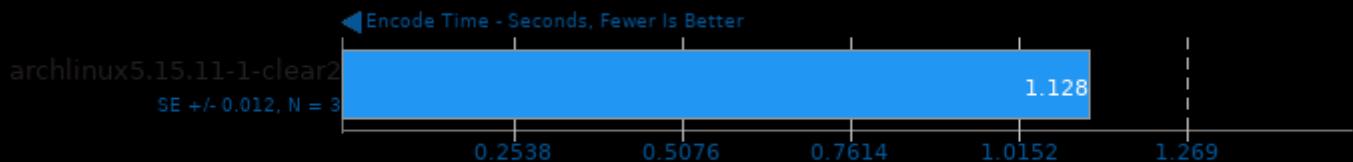
**dav1d - C.1.1.b (FPS)** 783.82  
Standard Deviation 0.4%  
**rav1e - 1 (FPS)** 0.585  
Standard Deviation 0.3%  
**rav1e - 5 (FPS)** 3.224  
Standard Deviation 0.6%  
**rav1e - 6 (FPS)** 4.421  
Standard Deviation 0.4%  
**rav1e - 10 (FPS)** 12.063  
Standard Deviation 1.8%  
**SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)** 2.175  
Standard Deviation 0.4%  
**SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)** 25.855  
Standard Deviation 0.1%  
**SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)** 7.073  
Standard Deviation 1.1%  
**SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)** 93.511  
Standard Deviation 0.2%  
**SVT-HEVC - 1 - Bosphorus 1080p (FPS)** 15.82  
Standard Deviation 0.2%  
**SVT-HEVC - 7 - Bosphorus 1080p (FPS)** 225.79  
Standard Deviation 0.3%  
**SVT-HEVC - 10 - Bosphorus 1080p (FPS)** 439.57  
Standard Deviation 0.4%  
**SVT-VP9 - VMAF Optimized - Bosphorus 1080p (FPS)** 312.85  
Standard Deviation 1.5%  
**SVT-VP9 - P.S.O - Bosphorus 1080p (FPS)** 321.34  
Standard Deviation 0.8%  
**SVT-VP9 - V.Q.O - Bosphorus 1080p (FPS)** 278.22  
Standard Deviation 1.5%  
**VP9 libvpx Encoding - Speed 0 - Bosphorus 4K (FPS)** 9.13  
Standard Deviation 0.4%  
**VP9 libvpx Encoding - Speed 5 - Bosphorus 4K (FPS)** 24.09  
Standard Deviation 0.7%  
**VP9 libvpx Encoding - Speed 0 - Bosphorus 1080p (FPS)** 17.96  
Standard Deviation 0.3%  
**VP9 libvpx Encoding - Speed 5 - Bosphorus 1080p (FPS)** 39.87  
Standard Deviation 1.4%  
**x264 - H.2.V.E (FPS)** 204.83  
Standard Deviation 1.4%  
**x265 - Bosphorus 4K (FPS)** 28.52  
Standard Deviation 0.4%  
**x265 - Bosphorus 1080p (FPS)** 88.81  
Standard Deviation 1%  
**libavif avifenc - 0 (sec)** 43.522  
Standard Deviation 1.4%  
**libavif avifenc - 2 (sec)** 22.677  
Standard Deviation 0.5%  
**libavif avifenc - 6 (sec)** 8.069  
Standard Deviation 0.5%  
**libavif avifenc - 10 (sec)** 2.059  
Standard Deviation 0.9%  
**libavif avifenc - 6, Lossless (sec)** 30.220

	Standard Deviation	0.1%
<b>libavif avifenc - 10, Lossless (sec)</b>	4.094	
	Standard Deviation	0.3%
<b>ddraw - R.T.P.I.C (sec)</b>	34.990	
	Standard Deviation	0.2%
<b>FLAC Audio Encoding - WAV To FLAC (sec)</b>	10.789	
	Standard Deviation	1.2%
<b>LAME MP3 Encoding - WAV To MP3 (sec)</b>	5.788	
	Standard Deviation	0%
<b>Ogg Audio Encoding - WAV To Ogg (sec)</b>	14.900	
	Standard Deviation	0.1%
<b>Opus Codec Encoding - WAV To Opus Encode (sec)</b>	6.101	
	Standard Deviation	0.3%
<b>FFmpeg - H.2.H.T.N.D (sec)</b>	4.265	
	Standard Deviation	1.9%
<b>libjpeg-turbo tbench - D.T (Megapixels/sec)</b>	265.191039	
	Standard Deviation	0.2%
<b>Darktable - Boat - OpenCL (sec)</b>	3.368	
	Standard Deviation	0.5%
<b>Darktable - Boat - CPU-only (sec)</b>	3.325	
	Standard Deviation	0.6%
<b>Darktable - Masskrug - OpenCL (sec)</b>	3.323	
	Standard Deviation	0.6%
<b>Darktable - Masskrug - CPU-only (sec)</b>	3.316	
	Standard Deviation	0.4%
<b>Darktable - Server Rack - OpenCL (sec)</b>	0.161	
	Standard Deviation	0.7%
<b>Darktable - Server Room - OpenCL (sec)</b>	3.039	
	Standard Deviation	0.5%
<b>Darktable - Server Rack - CPU-only (sec)</b>	0.161	
	Standard Deviation	0.9%
<b>Darktable - Server Room - CPU-only (sec)</b>	3.027	
	Standard Deviation	0.1%
<b>GEGL - Crop (sec)</b>	5.877	
	Standard Deviation	0.4%
<b>GEGL - Scale (sec)</b>	3.804	
	Standard Deviation	0.9%
<b>GEGL - Cartoon (sec)</b>	65.216	
	Standard Deviation	0.2%
<b>GEGL - Reflect (sec)</b>	23.326	
	Standard Deviation	0.4%
<b>GEGL - Antialias (sec)</b>	27.657	
	Standard Deviation	0.2%
<b>GEGL - Tile Glass (sec)</b>	21.713	
	Standard Deviation	0.2%
<b>GEGL - Wavelet Blur (sec)</b>	43.805	
	Standard Deviation	1%
<b>GEGL - Color Enhance (sec)</b>	39.013	
	Standard Deviation	0.4%
<b>GEGL - Rotate 90 Degrees (sec)</b>	29.719	
	Standard Deviation	0.2%
<b>GIMP - resize (sec)</b>	5.460	
	Standard Deviation	1.5%

**GIMP - rotate (sec)** 7.854  
Standard Deviation 0.3%  
**GIMP - auto-levels (sec)** 8.923  
Standard Deviation 1%  
**GIMP - unsharp-mask (sec)** 11.220  
Standard Deviation 1%  
**G'MIC - 2.F.P.1.T (sec)** 88.022  
Standard Deviation 1.8%  
**G'MIC - P.I.O.A.3.V.1.T (sec)** 11.064  
Standard Deviation 1.8%  
**G'MIC - 3.E.F.I.R.C.1.T (sec)** 55.257  
Standard Deviation 0.5%  
**Hugin - P.P.A.S.T (sec)** 32.862  
Standard Deviation 0.4%  
**RawTherapee - T.B.T (sec)** 47.42  
Standard Deviation 0.2%  
**librsvg - SVG Files To PNG (sec)** 13.286  
Standard Deviation 0.4%  
**WavPack Audio Encoding - WAV To WavPack (sec)** 11.376  
Standard Deviation 1.5%  
**Sunflow Rendering System - G.I.I.S (sec)** 0.565  
Standard Deviation 2.1%

## WebP Image Encode 1.1

Encode Settings: Default



1. (CC) gcc options: -fvisibility=hidden -O2 -pthread -lm -ljpeg -lpng16 -ltiff

## WebP Image Encode 1.1

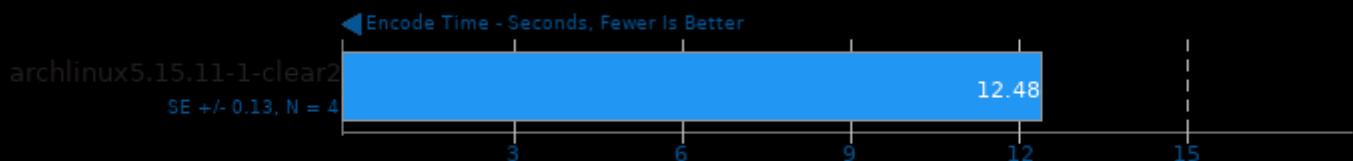
Encode Settings: Quality 100



1. (CC) gcc options: -fvisibility=hidden -O2 -pthread -lm -ljpeg -lpng16 -ltiff

## WebP Image Encode 1.1

Encode Settings: Quality 100, Lossless



1. (CC) gcc options: -fvisibility=hidden -O2 -pthread -lm -ljpeg -lpng16 -ltiff

## WebP Image Encode 1.1

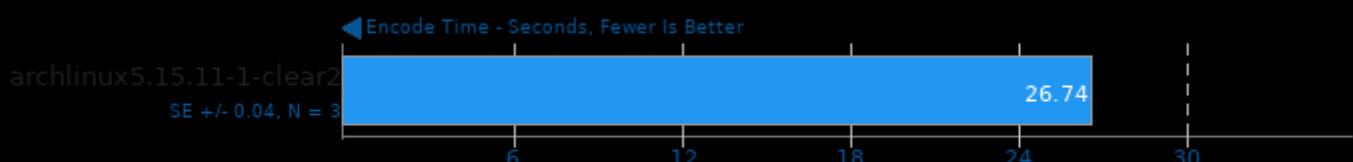
Encode Settings: Quality 100, Highest Compression



1. (CC) gcc options: -fvisibility=hidden -O2 -pthread -lm -ljpeg -lpng16 -ltiff

## WebP Image Encode 1.1

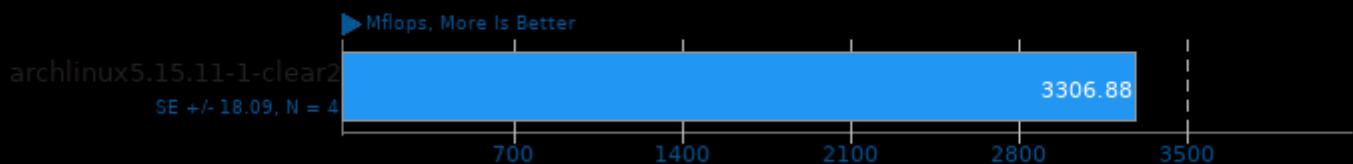
Encode Settings: Quality 100, Lossless, Highest Compression



1. (CC) gcc options: -fvisibility=hidden -O2 -pthread -lm -ljpeg -lpng16 -ltiff

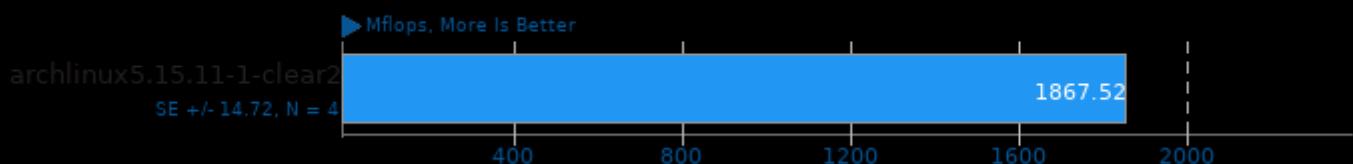
## Java SciMark 2.0

Computational Test: Composite



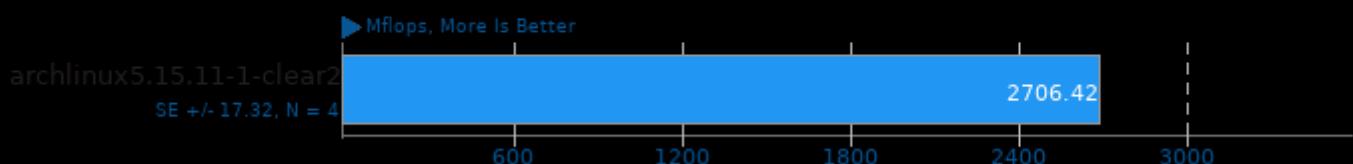
## Java SciMark 2.0

Computational Test: Monte Carlo



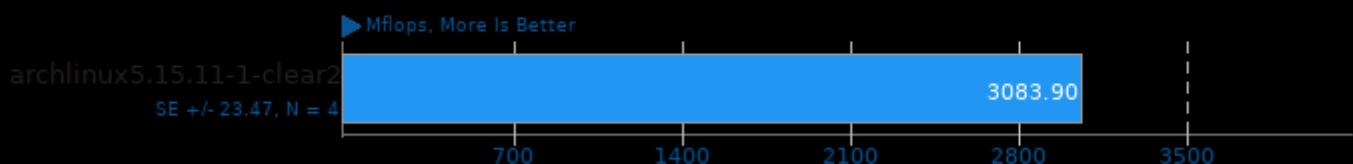
## Java SciMark 2.0

Computational Test: Fast Fourier Transform



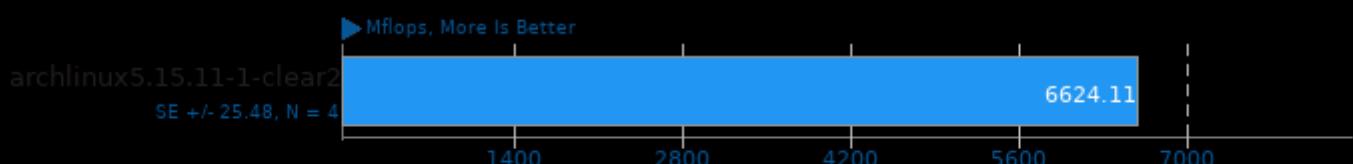
## Java SciMark 2.0

Computational Test: Sparse Matrix Multiply



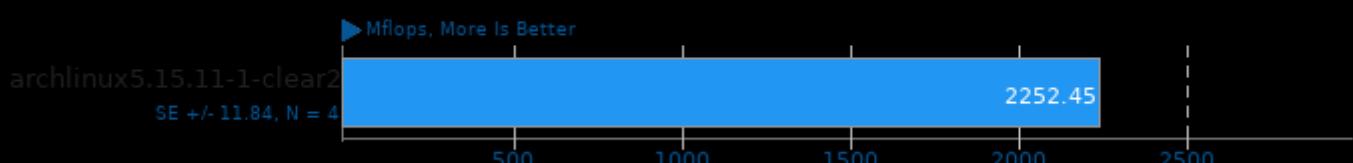
## Java SciMark 2.0

Computational Test: Dense LU Matrix Factorization



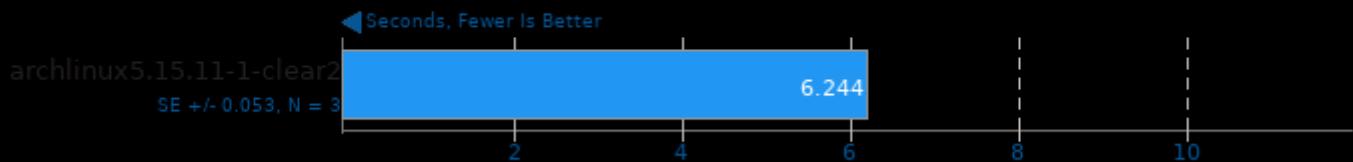
## Java SciMark 2.0

Computational Test: Jacobi Successive Over-Relaxation



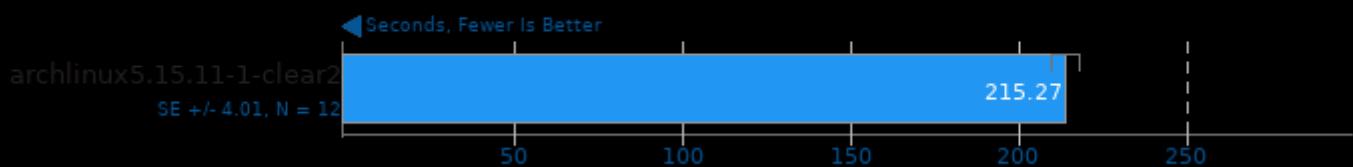
## Bork File Encrypter 1.4

File Encryption Time



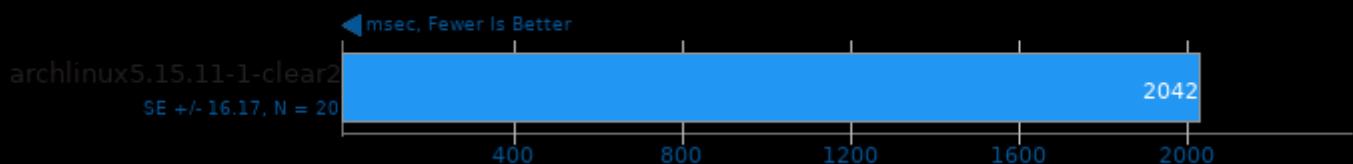
## Java Gradle Build

Gradle Build: Reactor



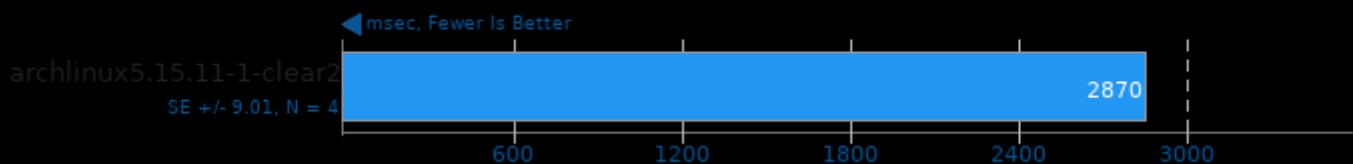
## DaCapo Benchmark 9.12-MR1

Java Test: H2



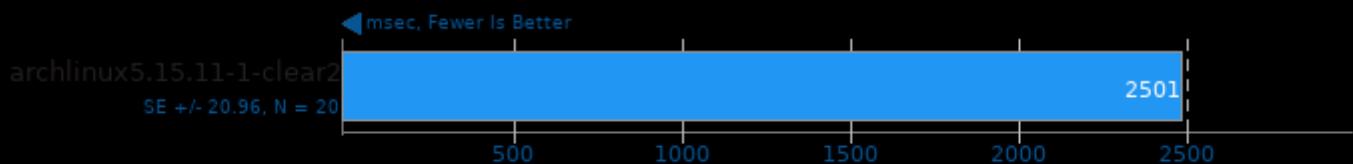
## DaCapo Benchmark 9.12-MR1

Java Test: Jython



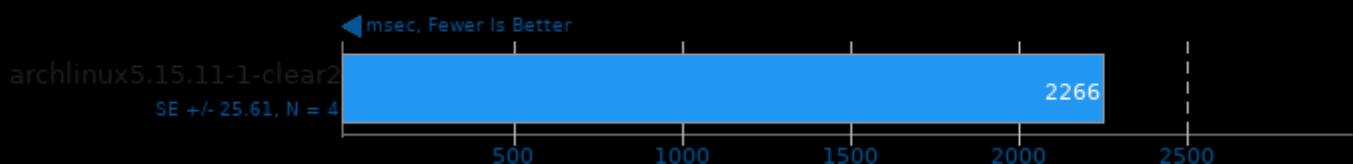
## DaCapo Benchmark 9.12-MR1

Java Test: Tradesoap



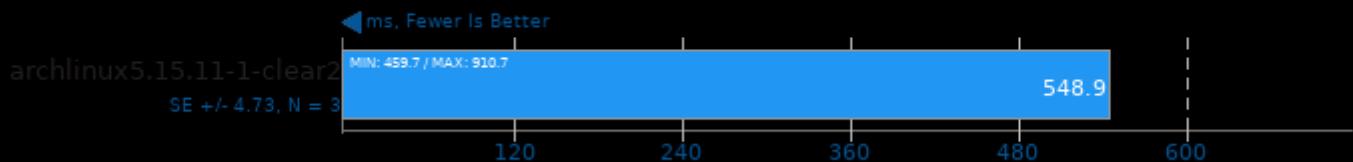
## DaCapo Benchmark 9.12-MR1

Java Test: Tradebeans



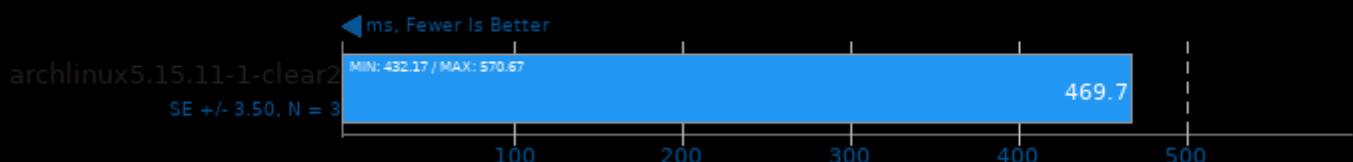
## Renaissance 0.12

Test: Scala Dotty



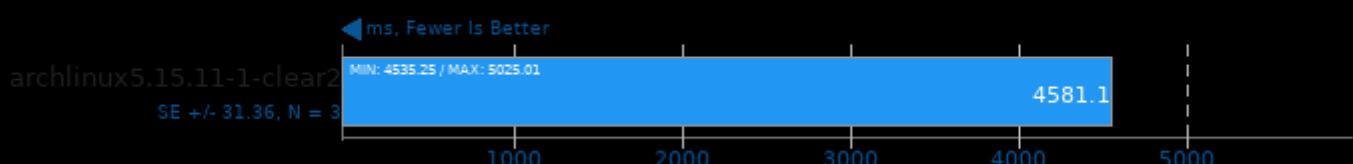
## Renaissance 0.12

Test: Random Forest



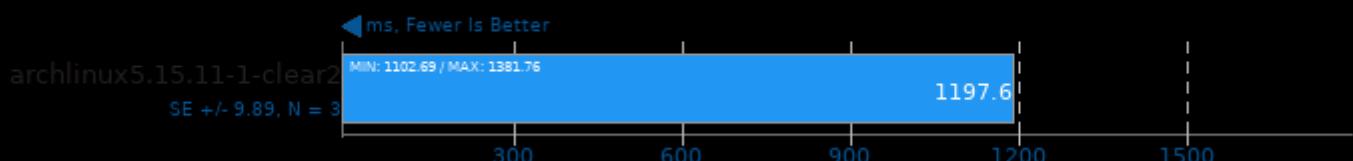
## Renaissance 0.12

Test: ALS Movie Lens



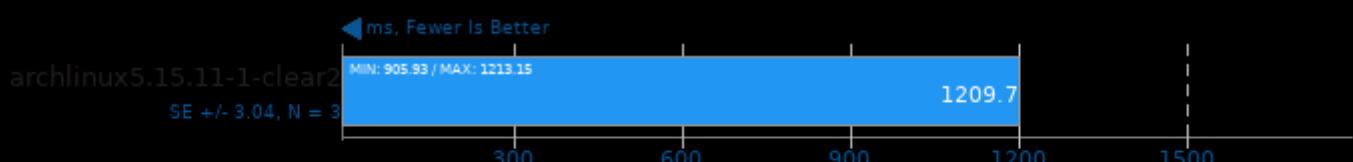
## Renaissance 0.12

Test: Apache Spark ALS



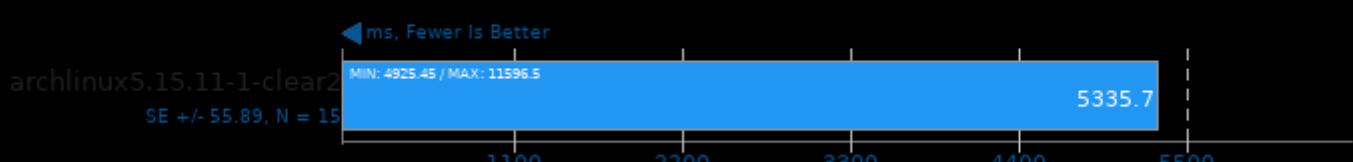
## Renaissance 0.12

Test: Apache Spark Bayes



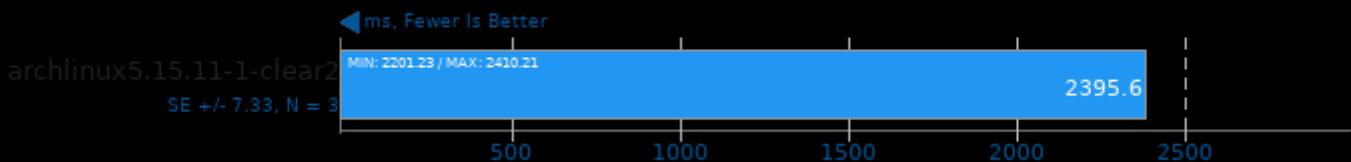
## Renaissance 0.12

Test: Savina Reactors.IO



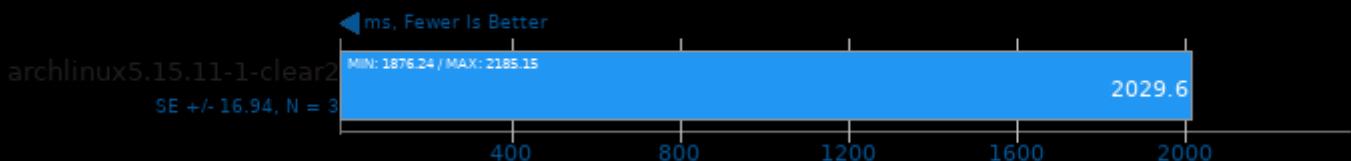
## Renaissance 0.12

Test: Apache Spark PageRank



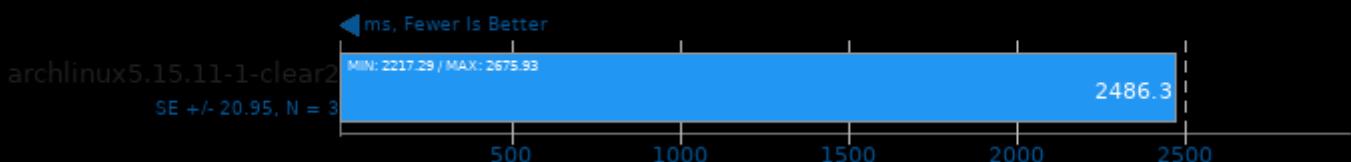
## Renaissance 0.12

Test: Finagle HTTP Requests



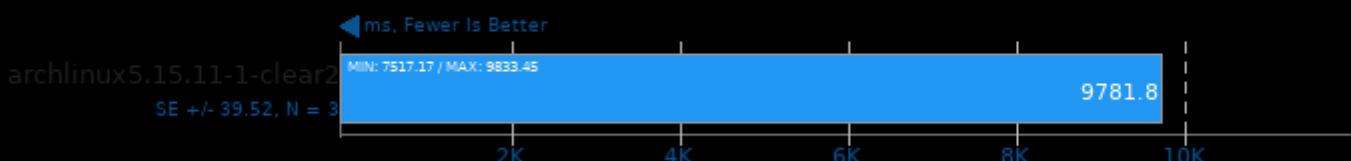
## Renaissance 0.12

Test: In-Memory Database Shootout



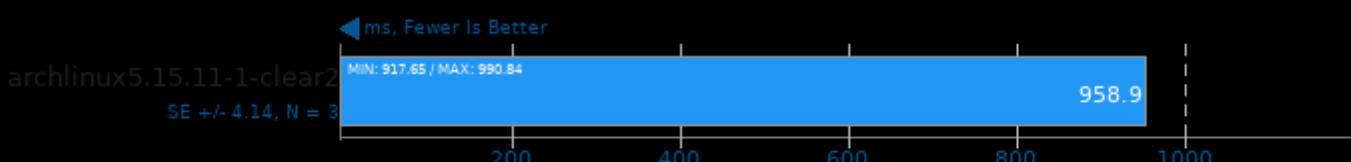
## Renaissance 0.12

Test: Akka Unbalanced Cobwebbed Tree



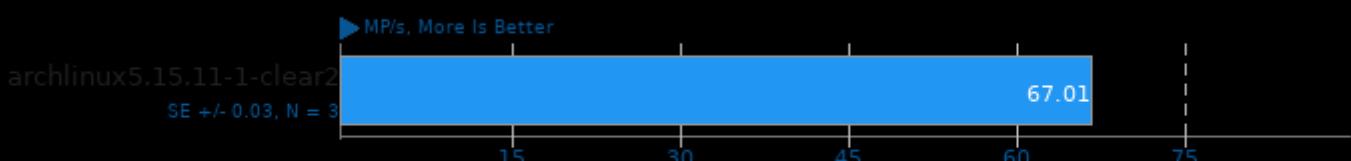
## Renaissance 0.12

Test: Genetic Algorithm Using Jenetics + Futures



## JPEG XL libjxl 0.6.1

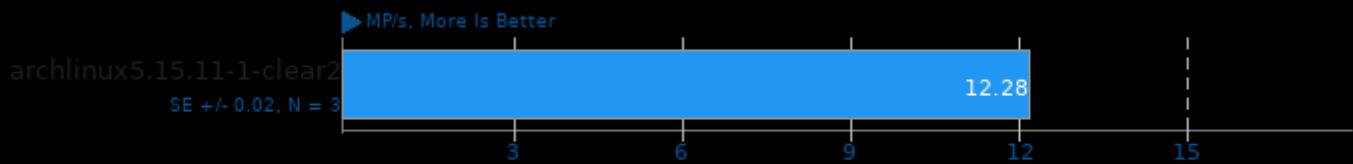
Input: PNG - Encode Speed: 5



1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie

## JPEG XL libjxl 0.6.1

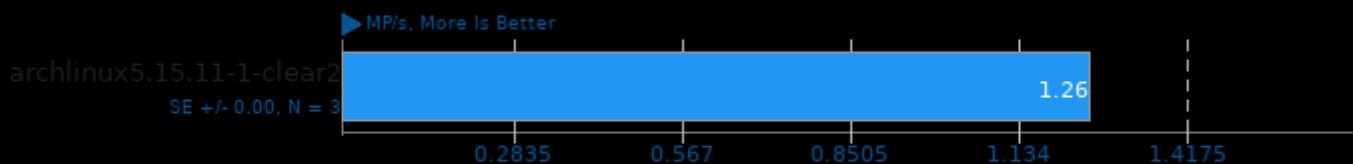
Input: PNG - Encode Speed: 7



1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie

## JPEG XL libjxl 0.6.1

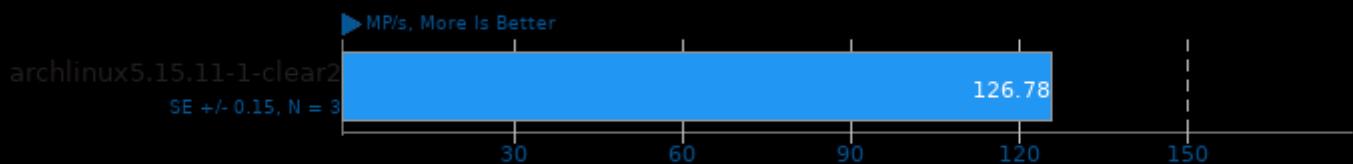
Input: PNG - Encode Speed: 8



1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie

## JPEG XL libjxl 0.6.1

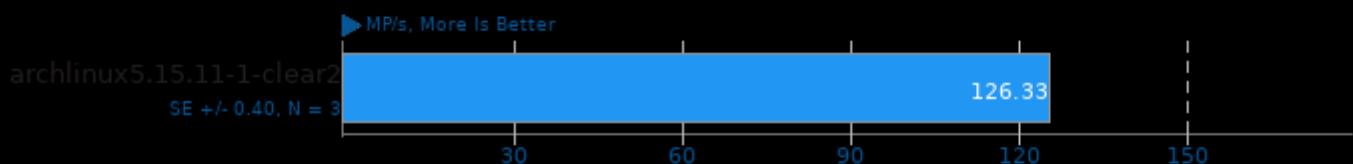
Input: JPEG - Encode Speed: 5



1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie

## JPEG XL libjxl 0.6.1

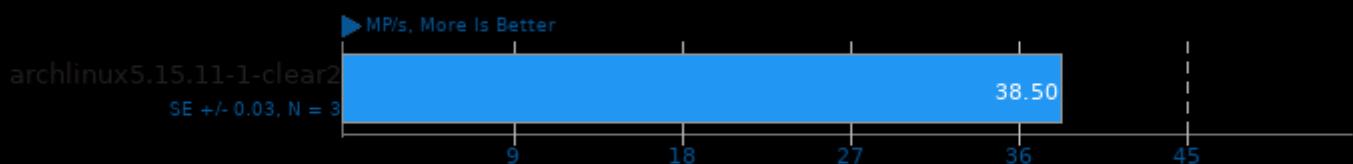
Input: JPEG - Encode Speed: 7



1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie

## JPEG XL libjxl 0.6.1

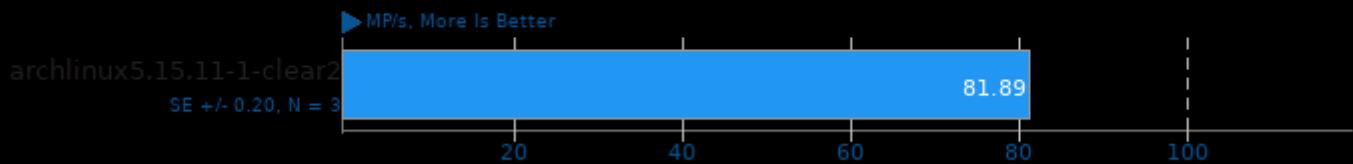
Input: JPEG - Encode Speed: 8



1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie

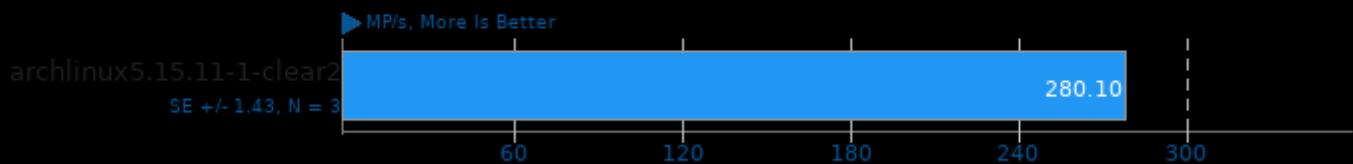
## JPEG XL Decoding libjxl 0.6.1

CPU Threads: 1



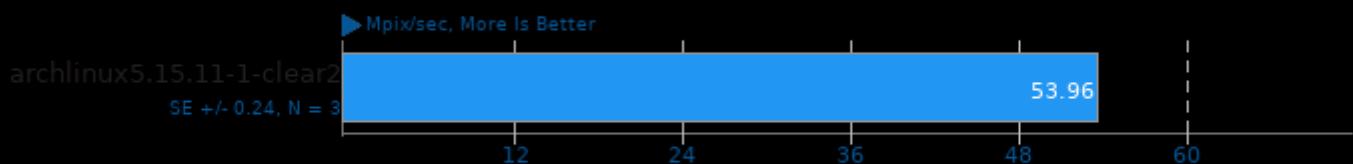
## JPEG XL Decoding libjxl 0.6.1

CPU Threads: All



## LibRaw 0.20

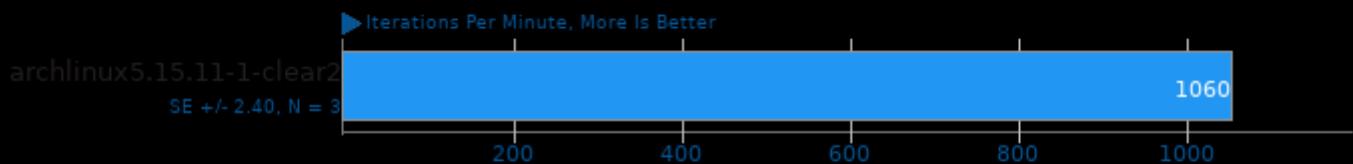
Post-Processing Benchmark



1. (CXX) g++ options: -O2 -fopenmp -ljpeg -ljasper -lz -lcms2 -lm

## GraphicsMagick 1.3.33

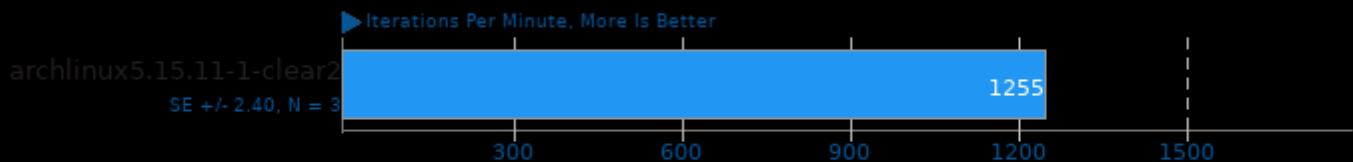
Operation: Swirl



1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lwebpmux -lcms2 -ltiff -lfreetype -ljasper -ljpeg -lwmflite -lXext -ISM -ICE -X11 -lzma -bz2 -xml2 -lz

## GraphicsMagick 1.3.33

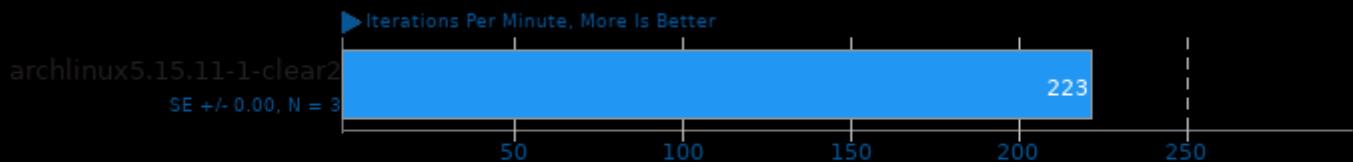
Operation: Rotate



1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lwebpmux -lcms2 -ltiff -lfreetype -ljasper -ljpeg -lwmflite -lXext -ISM -ICE -X11 -lzma -bz2 -xml2 -lz

## GraphicsMagick 1.3.33

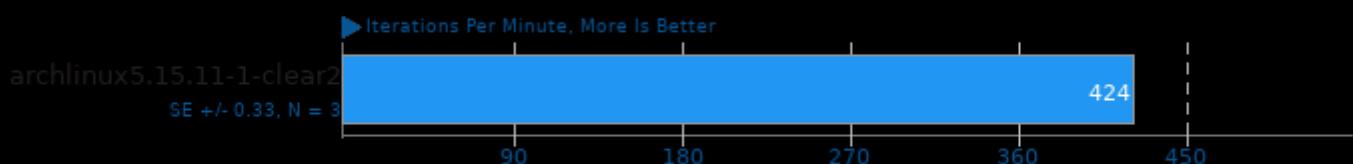
Operation: Sharpen



1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lwebpmux -lcms2 -ltiff -freetype -jasper -jpeg -lwmflite -Xext -ISM -ICE -X11 -lzma -bz2 -xml2 -z

## GraphicsMagick 1.3.33

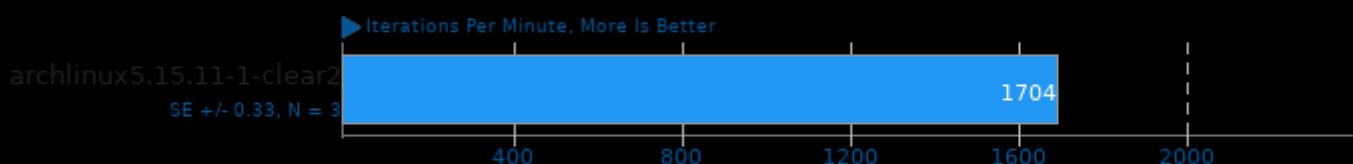
Operation: Enhanced



1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lwebpmux -lcms2 -ltiff -freetype -jasper -jpeg -lwmflite -Xext -ISM -ICE -X11 -lzma -bz2 -xml2 -z

## GraphicsMagick 1.3.33

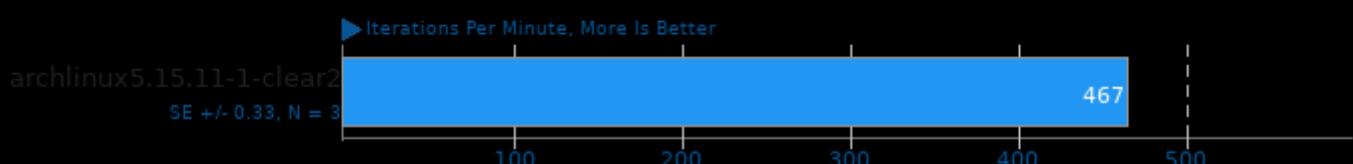
Operation: Resizing



1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lwebpmux -lcms2 -ltiff -freetype -jasper -jpeg -lwmflite -Xext -ISM -ICE -X11 -lzma -bz2 -xml2 -z

## GraphicsMagick 1.3.33

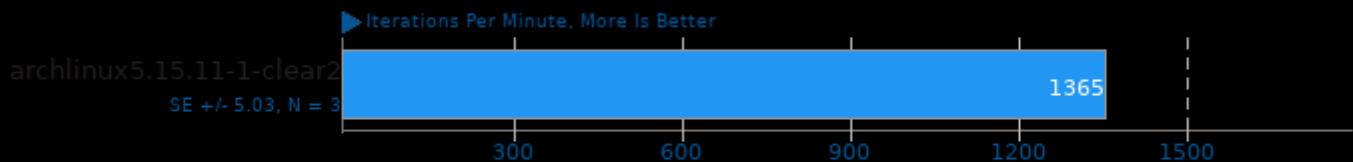
Operation: Noise-Gaussian



1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lwebpmux -lcms2 -ltiff -freetype -jasper -jpeg -lwmflite -Xext -ISM -ICE -X11 -lzma -bz2 -xml2 -z

## GraphicsMagick 1.3.33

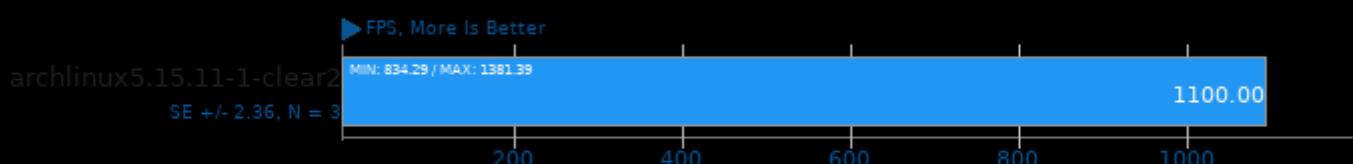
Operation: HWB Color Space



1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lweppmux -lcms2 -ltiff -lfreetype -jasper -jpeg -lwmflite -lXext -lSM -ICE -lX11 -lzma -lbz2 -lxm12 -lz

## dav1d 0.9.2

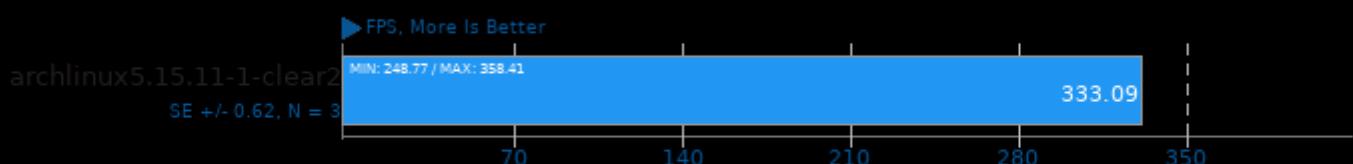
Video Input: Chimera 1080p



1. (CC) gcc options: -pthread -lm

## dav1d 0.9.2

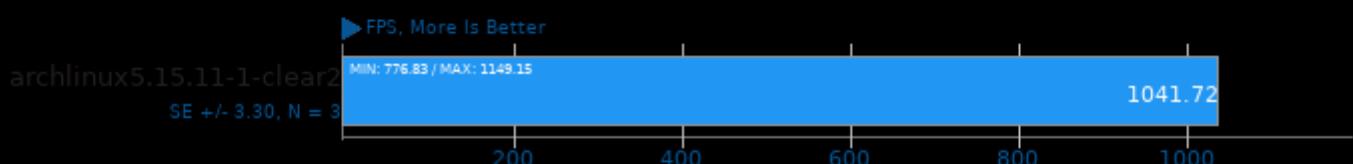
Video Input: Summer Nature 4K



1. (CC) gcc options: -pthread -lm

## dav1d 0.9.2

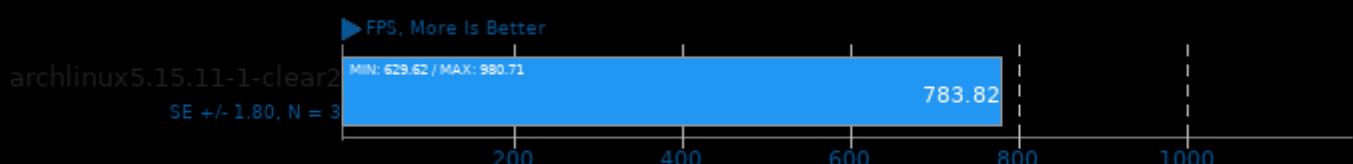
Video Input: Summer Nature 1080p



1. (CC) gcc options: -pthread -lm

## dav1d 0.9.2

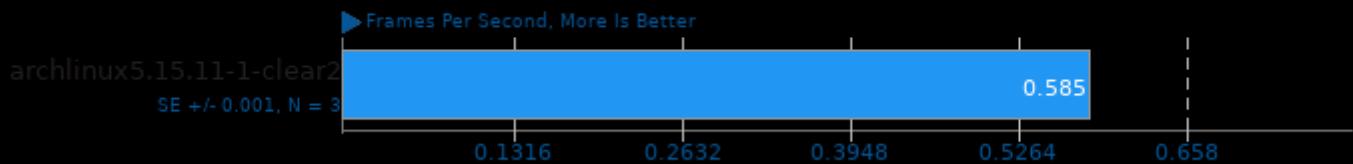
Video Input: Chimera 1080p 10-bit



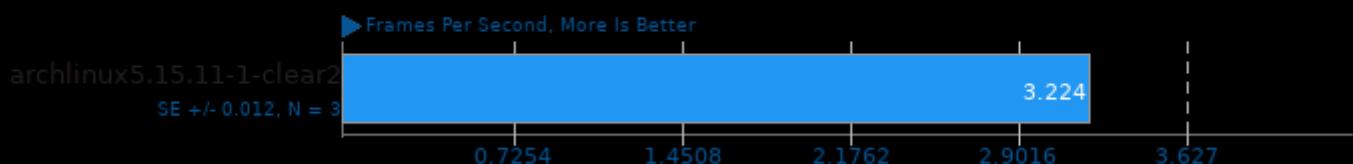
1. (CC) gcc options: -pthread -lm

**rav1e 0.5**

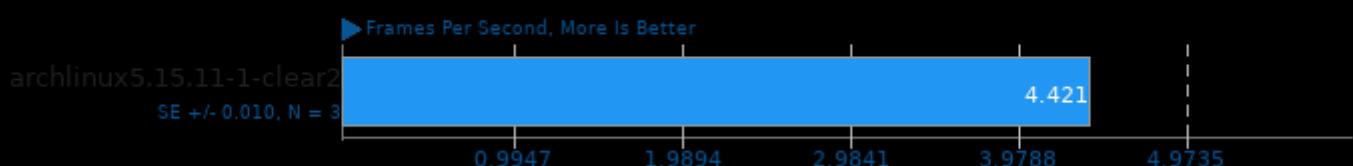
Speed: 1

**rav1e 0.5**

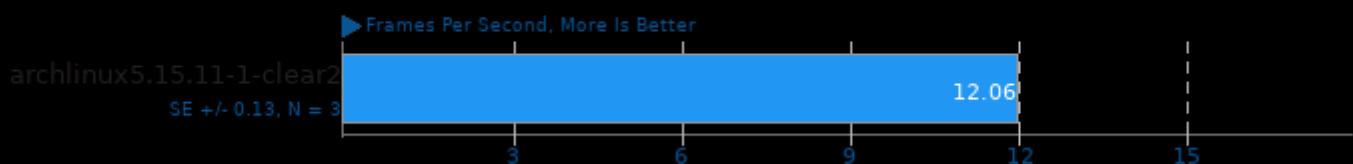
Speed: 5

**rav1e 0.5**

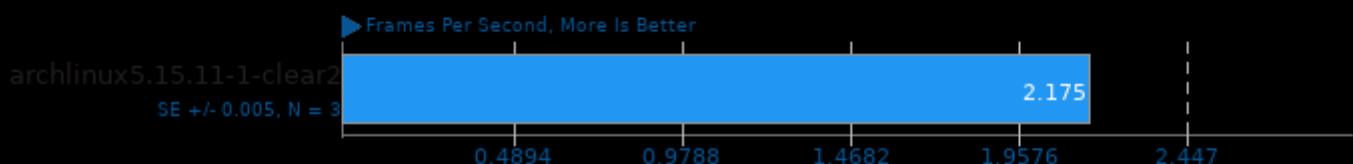
Speed: 6

**rav1e 0.5**

Speed: 10

**SVT-AV1 0.8.7**

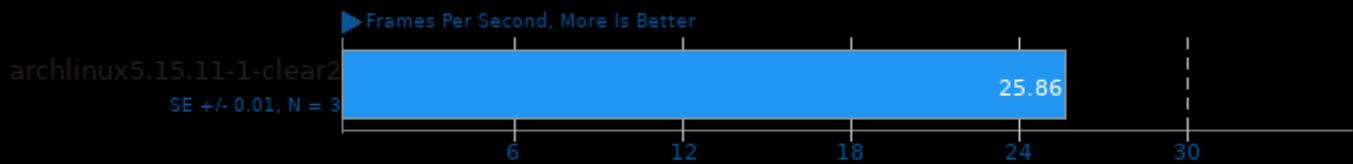
Encoder Mode: Preset 4 - Input: Bosphorus 4K



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

## SVT-AV1 0.8.7

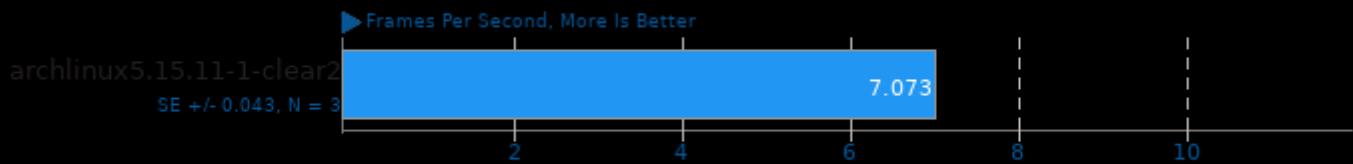
Encoder Mode: Preset 8 - Input: Bosphorus 4K



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

## SVT-AV1 0.8.7

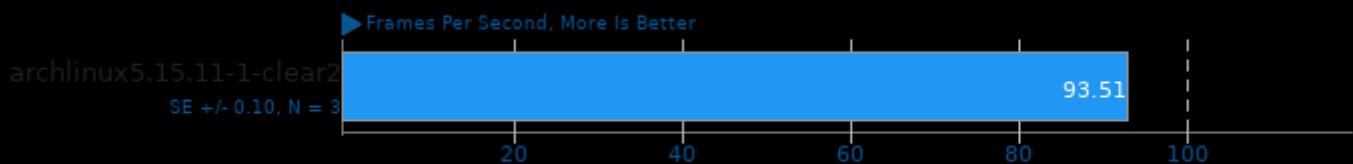
Encoder Mode: Preset 4 - Input: Bosphorus 1080p



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

## SVT-AV1 0.8.7

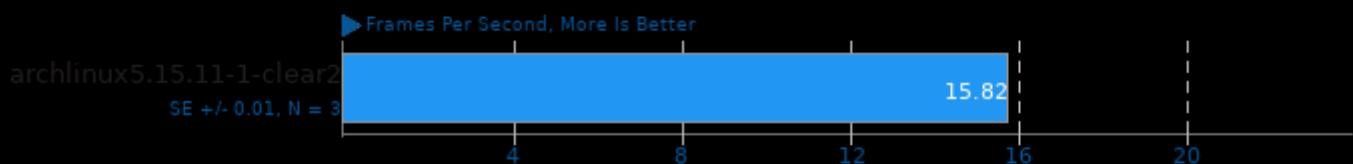
Encoder Mode: Preset 8 - Input: Bosphorus 1080p



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

## SVT-HEVC 1.5.0

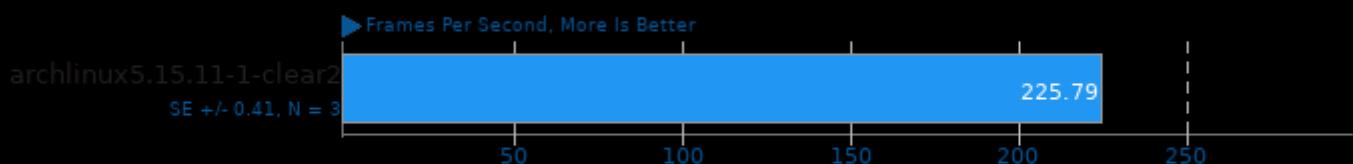
Tuning: 1 - Input: Bosphorus 1080p



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

## SVT-HEVC 1.5.0

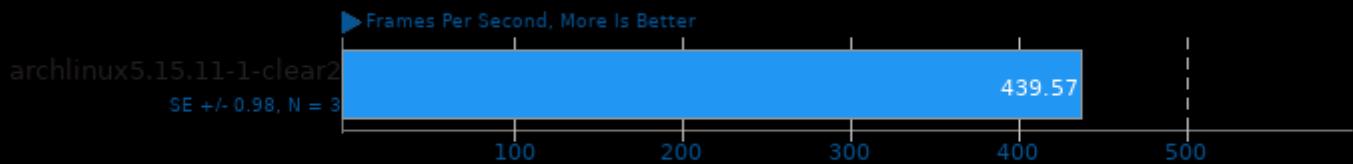
Tuning: 7 - Input: Bosphorus 1080p



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

## SVT-HEVC 1.5.0

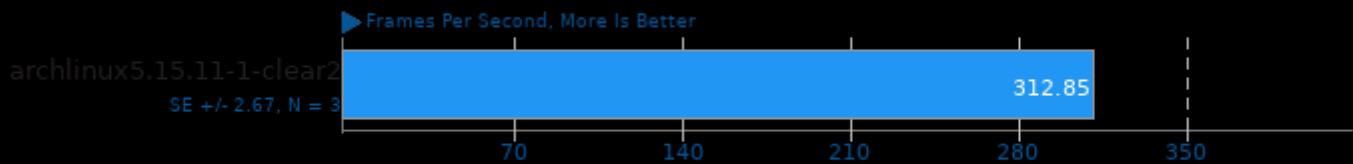
Tuning: 10 - Input: Bosphorus 1080p



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

## SVT-VP9 0.3

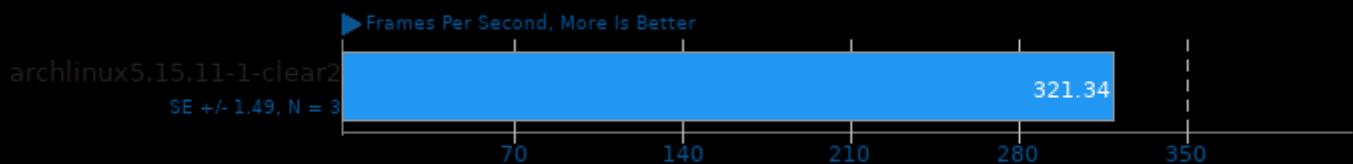
Tuning: VMAF Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

## SVT-VP9 0.3

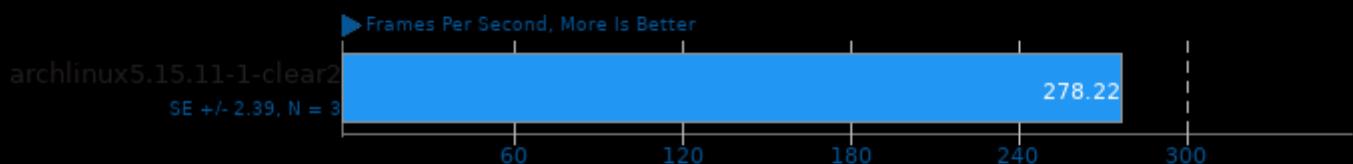
Tuning: PSNR/SSIM Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

## SVT-VP9 0.3

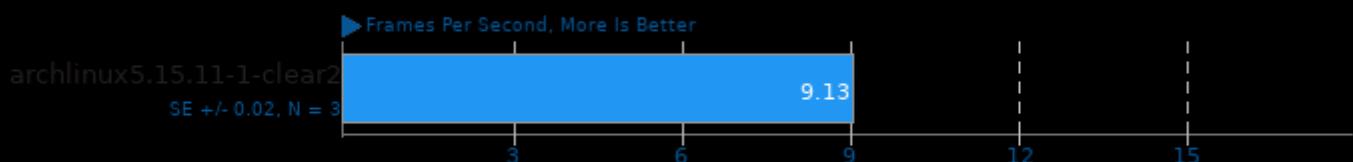
Tuning: Visual Quality Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

## VP9 libvpx Encoding 1.10.0

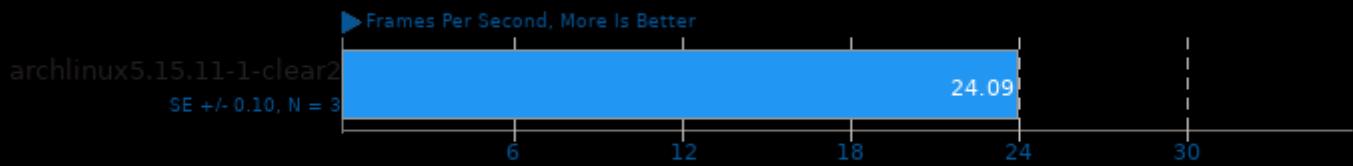
Speed: Speed 0 - Input: Bosphorus 4K



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U\_FORTIFY\_SOURCE -std=gnu++11

## VP9 libvpx Encoding 1.10.0

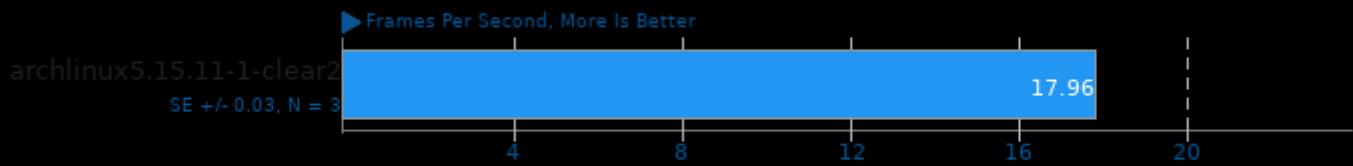
Speed: Speed 5 - Input: Bosphorus 4K



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U\_FORTIFY\_SOURCE -std=gnu++11

## VP9 libvpx Encoding 1.10.0

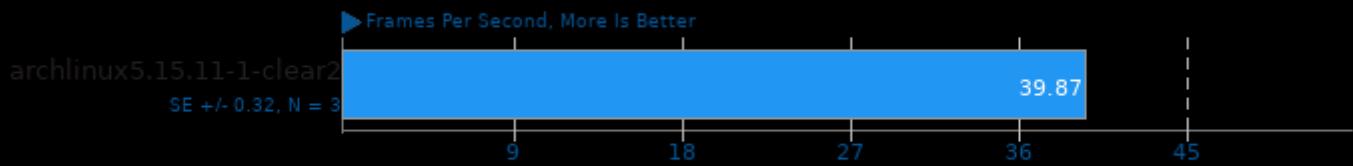
Speed: Speed 0 - Input: Bosphorus 1080p



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U\_FORTIFY\_SOURCE -std=gnu++11

## VP9 libvpx Encoding 1.10.0

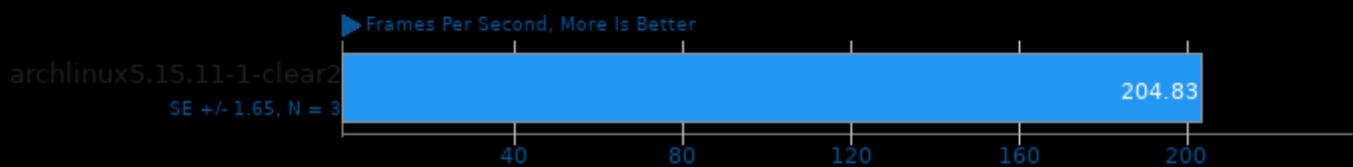
Speed: Speed 5 - Input: Bosphorus 1080p



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U\_FORTIFY\_SOURCE -std=gnu++11

## x264 2019-12-17

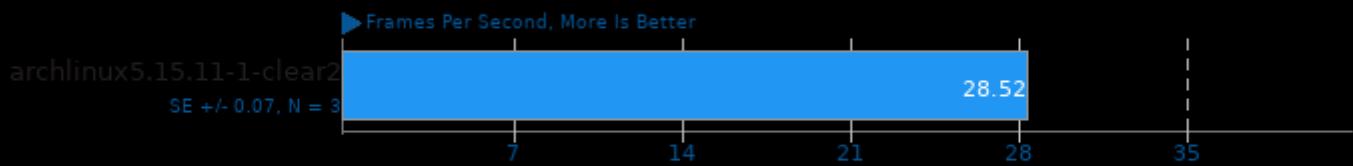
H.264 Video Encoding



1. (CC) gcc options: -ldl -lsmash -lavformat -lavcodec -lavutil -lswscale -m64 -lm -lpthread -O3 -ffast-math -std=gnu99 -fPIC -fomit-frame-pointer -fno-tree-vectorize

## x265 3.4

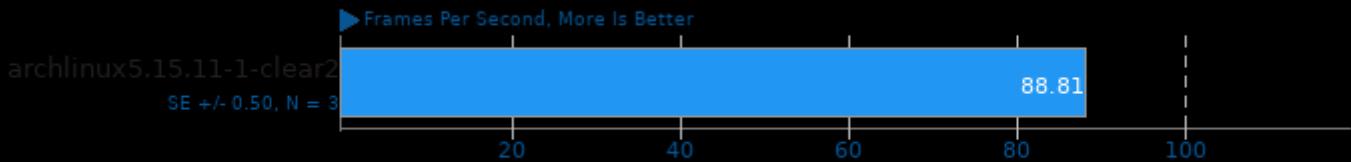
Video Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl

**x265 3.4**

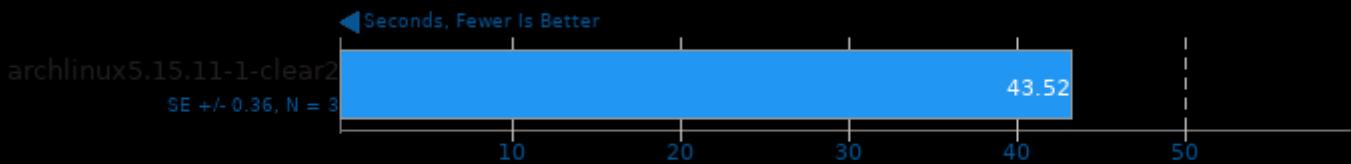
Video Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl

**libavif avifenc 0.9.0**

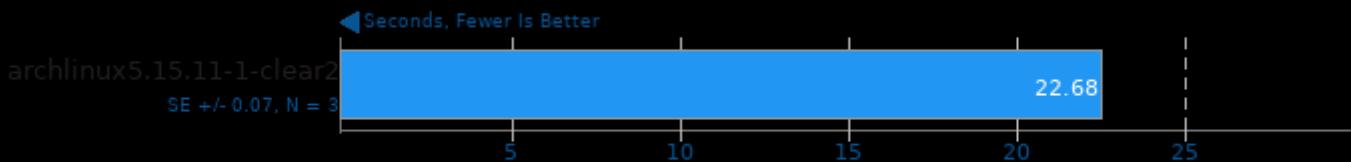
Encoder Speed: 0



1. (CXX) g++ options: -O3 -fPIC -lm

**libavif avifenc 0.9.0**

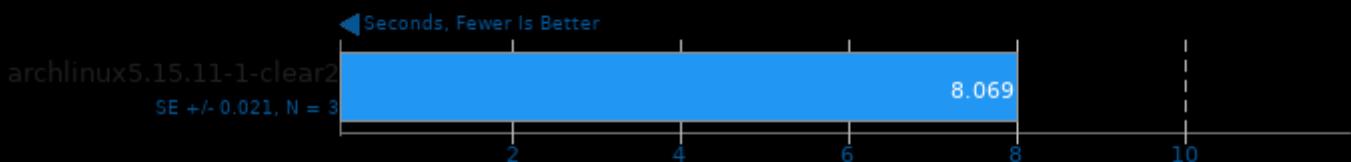
Encoder Speed: 2



1. (CXX) g++ options: -O3 -fPIC -lm

**libavif avifenc 0.9.0**

Encoder Speed: 6



1. (CXX) g++ options: -O3 -fPIC -lm

**libavif avifenc 0.9.0**

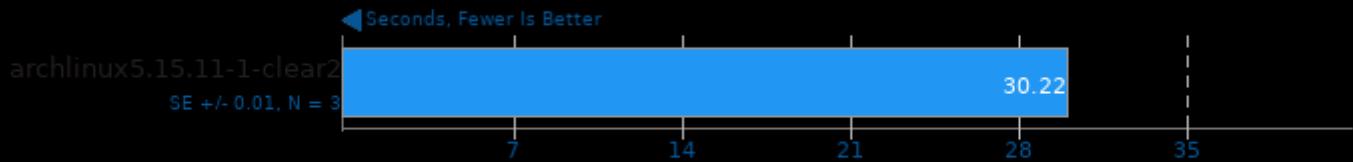
Encoder Speed: 10



1. (CXX) g++ options: -O3 -fPIC -lm

**libavif avifenc 0.9.0**

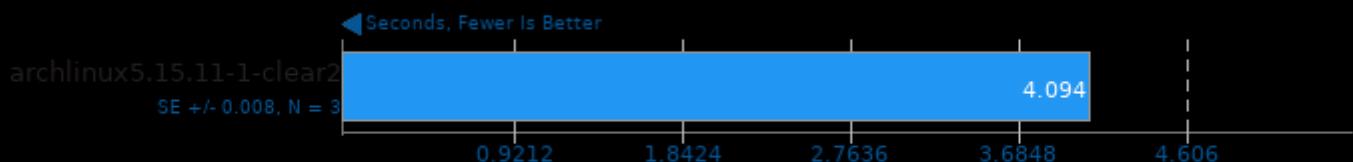
Encoder Speed: 6, Lossless



1. (CXX) g++ options: -O3 -fPIC -lm

**libavif avifenc 0.9.0**

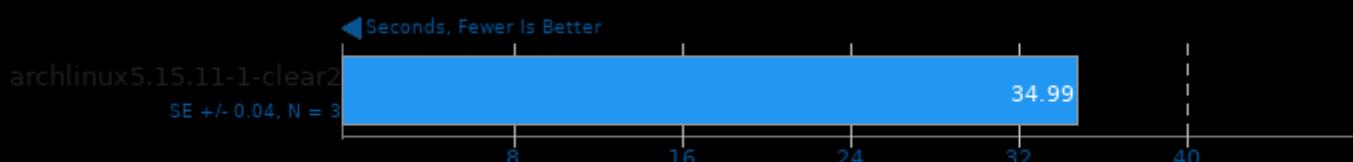
Encoder Speed: 10, Lossless



1. (CXX) g++ options: -O3 -fPIC -lm

**ddraw**

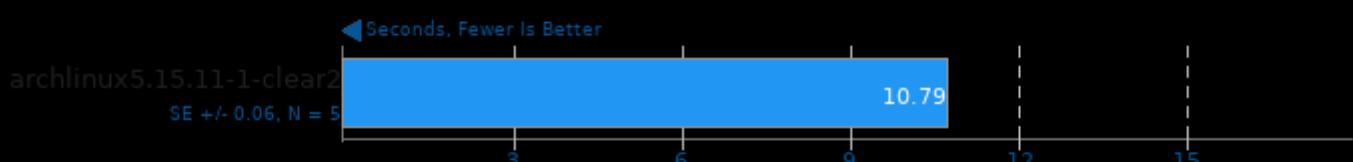
RAW To PPM Image Conversion



1. (CC) gcc options: -lm

**FLAC Audio Encoding 1.3.3**

WAV To FLAC



1. (CXX) g++ options: -fvisibility=hidden -logg -lm

**LAME MP3 Encoding 3.100**

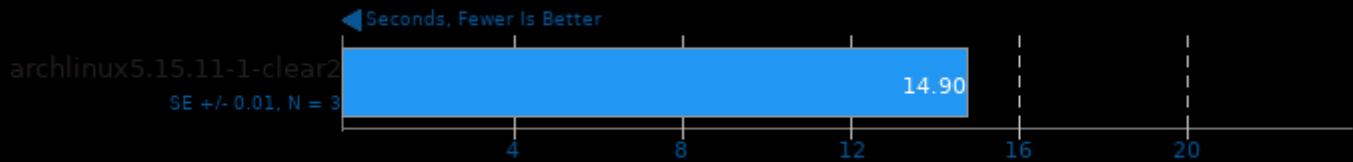
WAV To MP3



1. (CC) gcc options: -O3 -ffast-math -funroll-loops -fschedule-insns2 -fbranch-count-reg -fforce-addr -pipe -fincrustes -lm

## Ogg Audio Encoding 1.3.4

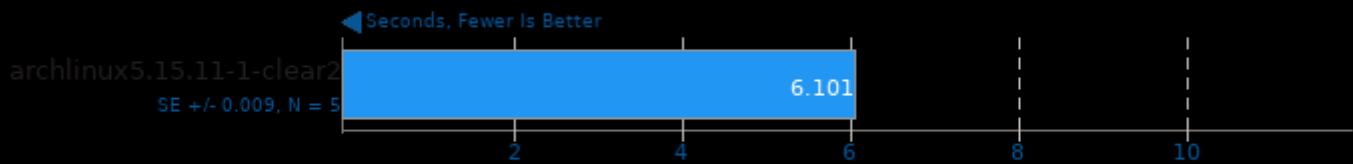
WAV To Ogg



1. (CC) gcc options: -O2 -ffast-math -fsigned-char

## Opus Codec Encoding 1.3.1

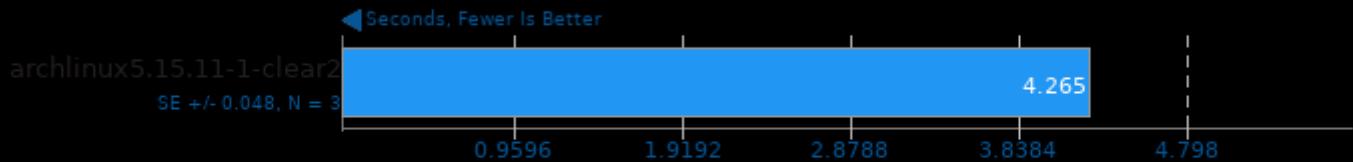
WAV To Opus Encode



1. (CXX) g++ options: -fvisibility=hidden -logg -lm

## FFmpeg 4.0.2

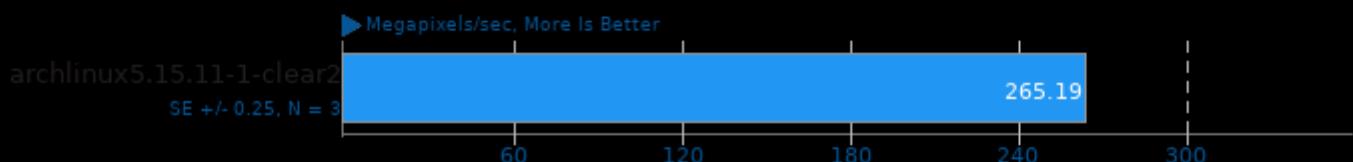
H.264 HD To NTSC DV



1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lXv -lX11 -lXext -lm -lxcb -lxcb-shm -lxcb-shape -lxcb-xfixes -l

## libjpeg-turbo tjbench 2.1.0

Test: Decompression Throughput



1. (CC) gcc options: -O3 -rdynamic

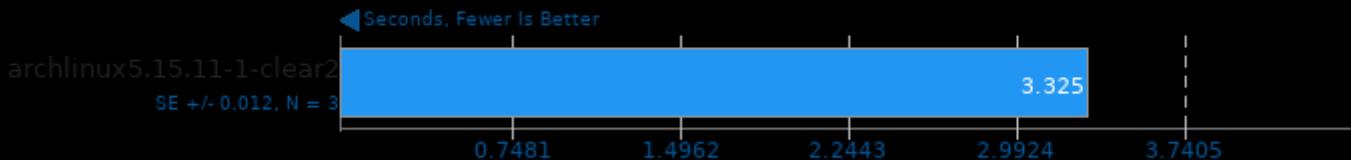
## Darktable 3.8.0

Test: Boat - Acceleration: OpenCL



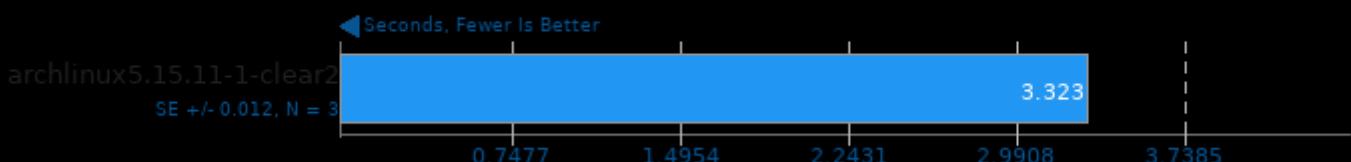
## Darktable 3.8.0

Test: Boat - Acceleration: CPU-only



## Darktable 3.8.0

Test: Masskrug - Acceleration: OpenCL



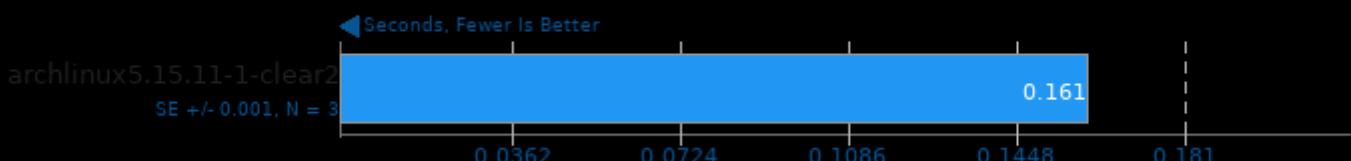
## Darktable 3.8.0

Test: Masskrug - Acceleration: CPU-only



## Darktable 3.8.0

Test: Server Rack - Acceleration: OpenCL



## Darktable 3.8.0

Test: Server Room - Acceleration: OpenCL



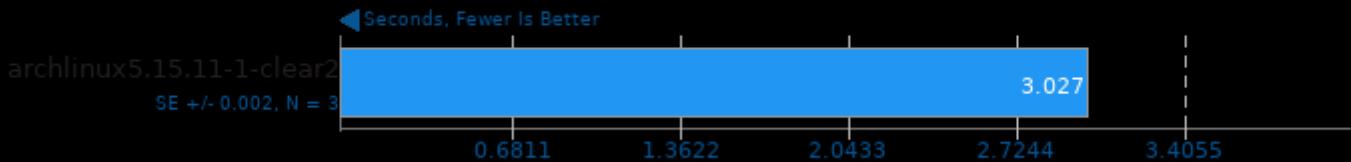
## Darktable 3.8.0

Test: Server Rack - Acceleration: CPU-only



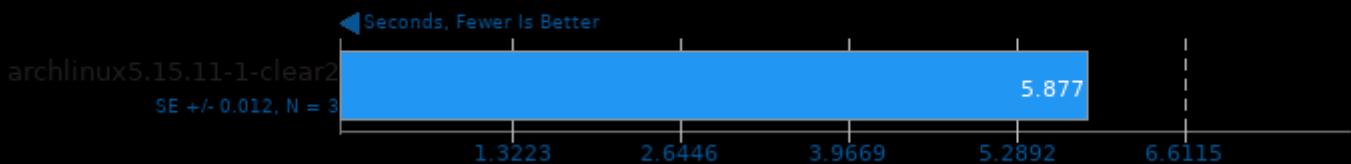
## Darktable 3.8.0

Test: Server Room - Acceleration: CPU-only



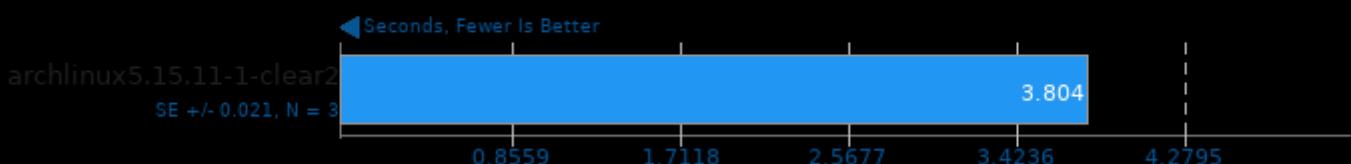
## GEGL

Operation: Crop



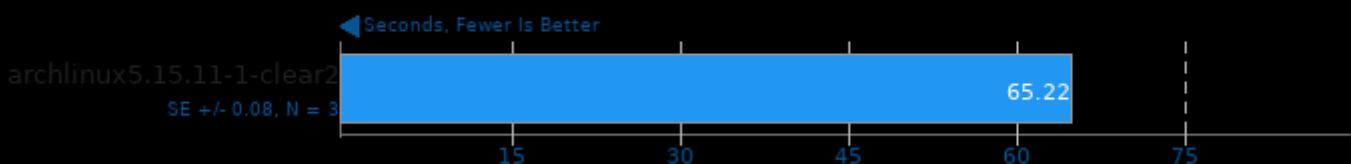
## GEGL

Operation: Scale



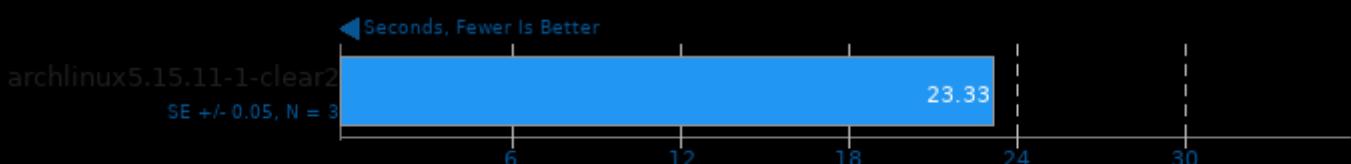
## GEGL

Operation: Cartoon



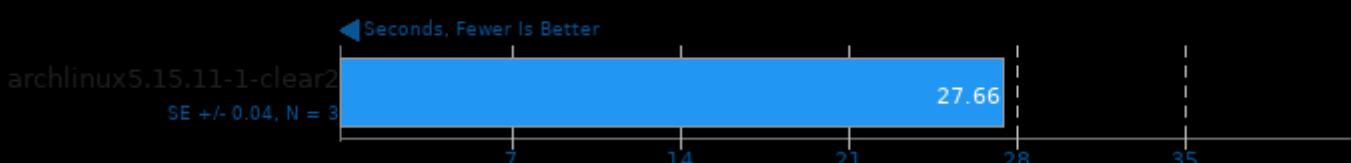
## GEGL

Operation: Reflect



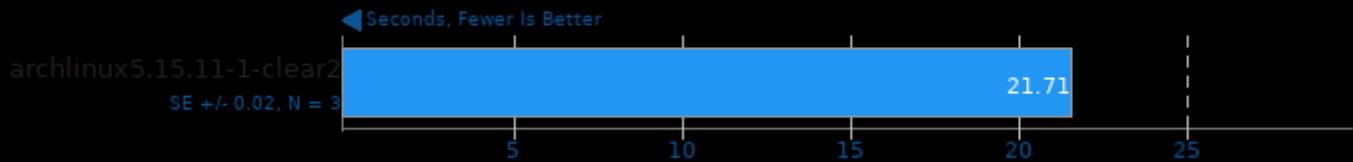
## GEGL

Operation: Antialias

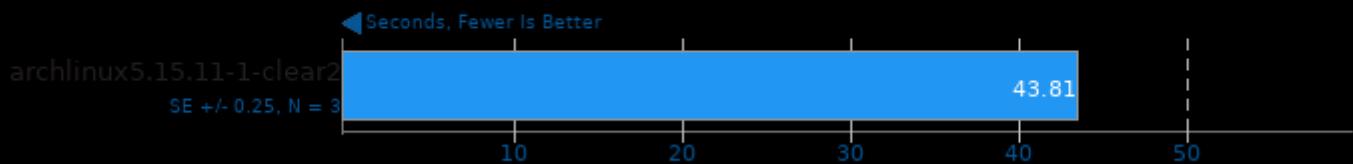


**GEGL**

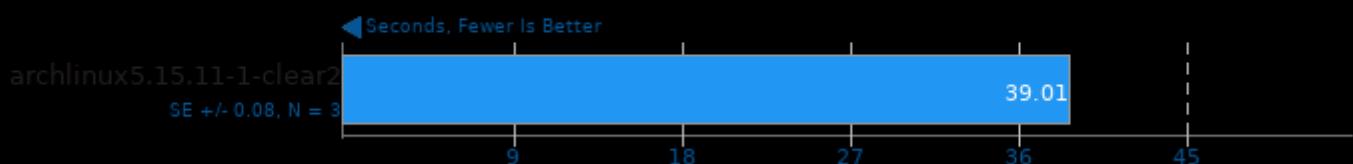
Operation: Tile Glass

**GEGL**

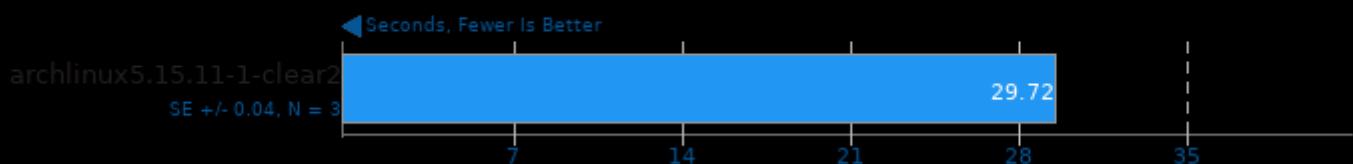
Operation: Wavelet Blur

**GEGL**

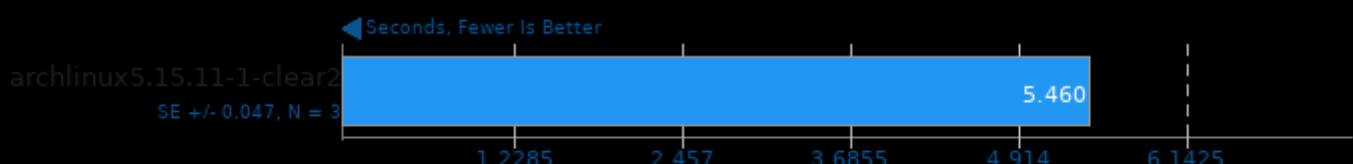
Operation: Color Enhance

**GEGL**

Operation: Rotate 90 Degrees

**GIMP 2.10.30**

Test: resize

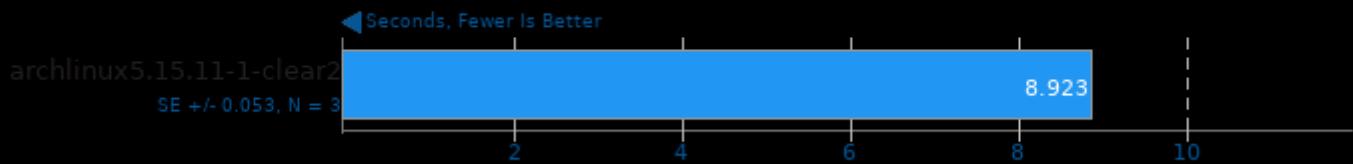
**GIMP 2.10.30**

Test: rotate

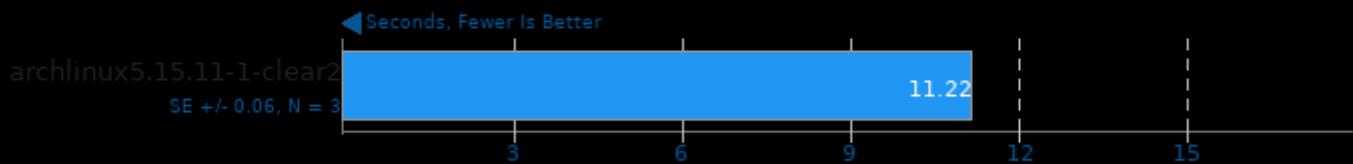


**GIMP 2.10.30**

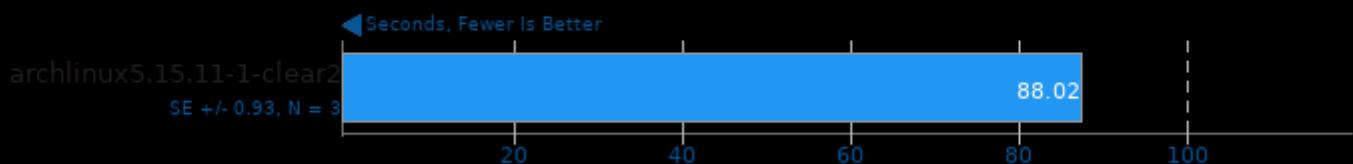
Test: auto-levels

**GIMP 2.10.30**

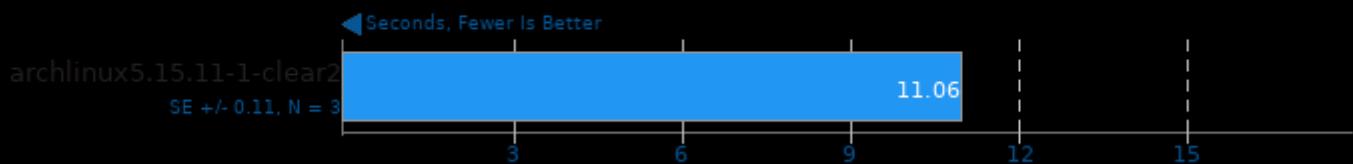
Test: unsharp-mask

**G'MIC**

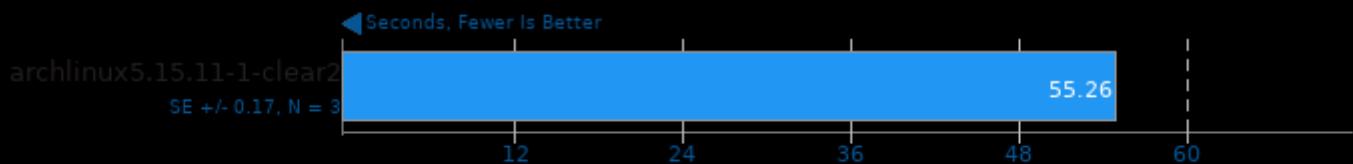
Test: 2D Function Plotting, 1000 Times

**G'MIC**

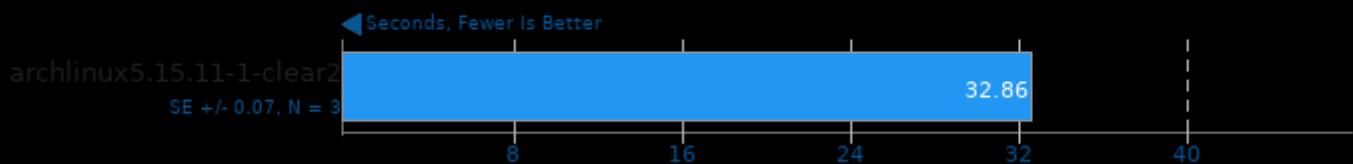
Test: Plotting Isosurface Of A 3D Volume, 1000 Times

**G'MIC**

Test: 3D Elevated Function In Random Colors, 100 Times

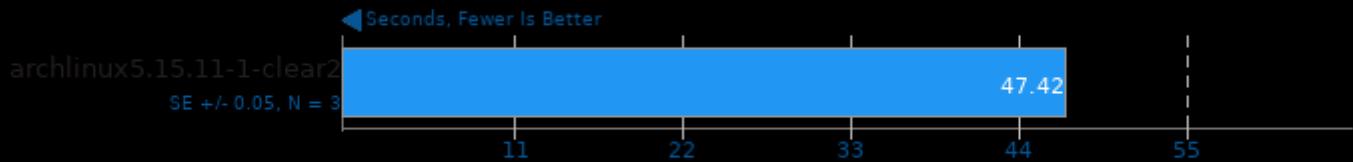
**Hugin**

Panorama Photo Assistant + Stitching Time



## RawTherapee

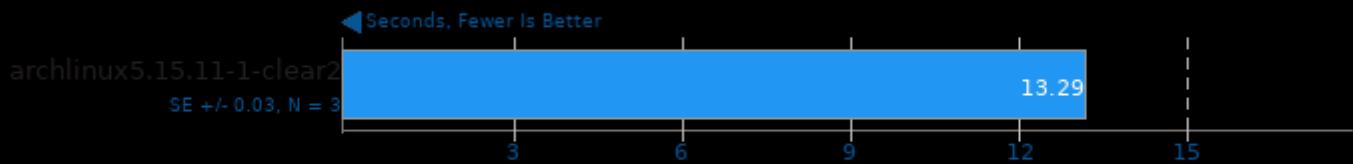
Total Benchmark Time



1. RawTherapee, version 5.8, command line.

## librsvg

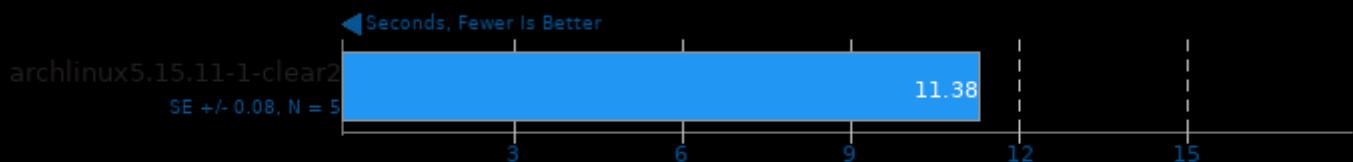
Operation: SVG Files To PNG



1. rsvg-convert version 2.52.5

## WavPack Audio Encoding 5.3

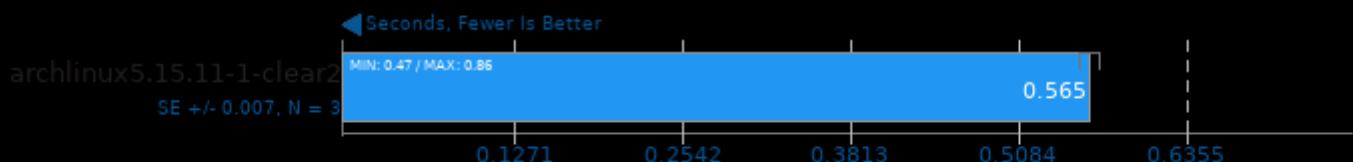
WAV To WavPack



1. (CXX) g++ options: -rdynamic

## Sunflow Rendering System 0.07.2

Global Illumination + Image Synthesis



This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 06:23.