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navjack27

Intel Core i5-8250U testing with a HP 83C4 v31.60 (F.38 BIOS) and Intel UHD 620 3072MB on ManjaroLinux 17.1.9 via the Phoronix Test Suite.

Automated Executive Summary

navjaro-system-draft had the most wins, coming in first place for 85% of the tests.

Based on the geometric mean of all complete results, the fastest (navjaro-system-draft) was 1.004x the speed of the slowest (navjaro-custom-kernel).

The results with the greatest spread from best to worst included:

OpenArena (1920 x 1080 - Total Frame Time) at 21x
FFmpeg (H.264 HD To NTSC DV) at 1.013x
SQLite (Timed SQLite Insertions) at 1.011x
PostMark (Disk Transaction Performance) at 1.008x
OpenSSL (RSA 4096-bit Performance) at 1.006x
LAME MP3 Encoding (WAV To MP3) at 1.002x
dcraw (RAW To PPM Image Conversion) at 1.002x
LZMA Compression (256MB File Compression) at 1.001x
Dbench (12 Clients) at 1x

Threaded I/O Tester (64MB Read - 32 Threads) at 1x.

Test Systems:

navjaro-system-draft

navjaro-custom-kernel

Processor: Intel Core i5-8250U @ 3.40GHz (4 Cores / 8 Threads), Motherboard: HP 83C4 v31.60 (F.38 BIOS), Chipset: Intel Xeon E3-1200 v6/7th, Memory: 8192MB, Disk: 128GB SanDisk SD8SN8U-, Graphics: Intel UHD 620 3072MB (1100MHz), Audio: Realtek ALC295, Network: Intel Wireless 7265

OS: ManjaroLinux 17.1.9, Kernel: 4.17.0-rc3-navjaro (x86_64), Desktop: Cinnamon 3.8.0, Display Driver: intel 2.99.917, OpenGL: 4.5 Mesa 18.0.1, Compiler: GCC 7.3.1 20180312, File-System: xfs, Screen Resolution: 1920x1080

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++ --enable-libmpx --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Disk Notes: NOOP / attr2,inode64,noatime,noquota,rw
Processor Notes: Scaling Governor: intel_pstate performance
Graphics Notes: SNA
Security Notes: KPTI + __user pointer sanitization + Full generic retpoline Protection

	navjaro-system-draft	navjaro-custom-kernel
SQLite - T.S.I (sec)	**28.40**	**28.72**
Normalized	100%	98.89%
Standard Deviation	3.2%	3.2%
Dbench - 12 Clients (MB/s)	523.03	
Standard Deviation	0.3%	
Threaded I/O Tester - 64MB Read - 32 Threads (MB/s)	13465	
Standard Deviation	2.3%	
Threaded I/O Tester - 64MB Write - 32 Threads (MB/s)	4.97	
Standard Deviation	0.2%	
PostMark - D.T.P (TPS)	**5906**	**5952**
Normalized	99.23%	100%
Standard Deviation	1.4%	
Timed HMMer Search - P.D.S (sec)	13.61	
Standard Deviation	0.2%	
Timed MAFFT Alignment - M.S.A (sec)	7.04	
Standard Deviation	1%	
Open FMM Nero2D - Total Time (sec)	145.30	
Standard Deviation	0.4%	
GraphicsMagick - HWB Color Space (Iterations/min)	190	
GraphicsMagick - L.A.T (Iterations/min)	86	

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C-Ray - Total Time (sec)	37.22	
Standard Deviation	0.1%	
Parallel BZIP2 Compression - 2.F.C (sec)	15.33	
Standard Deviation	1.9%	
POV-Ray - Trace Time (sec)	200.44	
Standard Deviation	0.2%	
LZMA Compression - 2.F.C (sec)	**301.13**	**301.57**
Normalized	100%	99.85%
Standard Deviation	0.4%	0.5%
dcraw - R.T.P.I.C (sec)	**48.55**	**48.64**
Normalized	100%	99.81%
Standard Deviation	0%	0%
LAME MP3 Encoding - WAV To MP3 (sec)	**35.76**	**35.83**
Normalized	100%	99.8%
Standard Deviation	0%	0%
FFmpeg - H.2.H.T.N.D (sec)	**9.94**	**10.07**
Normalized	100%	98.71%
Standard Deviation	1.5%	0.7%
GnuPG - 2.F.E (sec)	15.32	
Standard Deviation	2.4%	
Minion - Solitaire (sec)	82.38	
Standard Deviation	0.3%	
Sudokut - Total Time (sec)	12.73	
Standard Deviation	0.3%	
Tachyon - Total Time (sec)	15.75	
Standard Deviation	0.1%	
OpenSSL - R.4.b.P (Signs/sec)	**665.07**	**661.23**
Normalized	100%	99.42%
Standard Deviation	0.1%	0.4%
PyBench - T.F.A.T.T (Milliseconds)	1471	
Standard Deviation	0.4%	
Apache Benchmark - S.W.P.S (Reqs/sec)	20611	
Standard Deviation	0.2%	
Sunflow Rendering System - G.I.I.S (sec)	4.25	
Standard Deviation	0.3%	
FS-Mark - 1.F.1.S (Files/s)		119.27
Standard Deviation		22.7%
Unpacking The Linux Kernel - linux-4.15.tar.xz (sec)		7.15
Standard Deviation		0.8%
QGears2 - OpenGL + Gears (FPS)		599.94
Standard Deviation		2.1%
QGears2 - XRender + Text (FPS)		307.96
Standard Deviation		1.1%
QGears2 - XRender + Gears (FPS)		231.71
Standard Deviation		0.6%
QGears2 - O.I.S (FPS)		3060
Standard Deviation		0.6%
QGears2 - X.I.S (FPS)		1902
Standard Deviation		5.1%
OpenArena - 1920 x 1080 (FPS)		35.93
Standard Deviation		2.3%
GtkPerf - GtkComboBox (sec)		23.46
Standard Deviation		17.3%

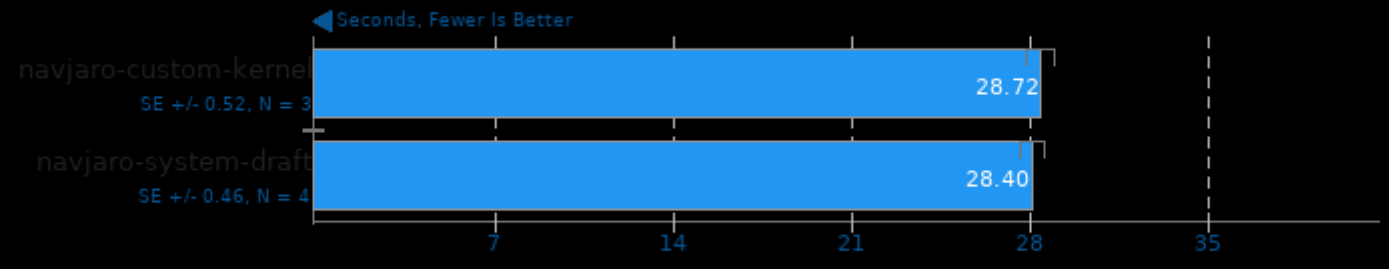
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GtkPerf - GtkRadioButton (sec)	0.22
Standard Deviation	2.7%
GtkPerf - GtkDrawingArea - Pixbufs (sec)	0.55
Standard Deviation	2.1%
TSCP - A.C.P (Nodes/s)	1131426
Standard Deviation	0.1%
TTSIOD 3D Renderer - P.R.W.S.S.M (FPS)	130.72
Standard Deviation	1%
x264 - H.2.V.E (FPS)	24.34
Standard Deviation	0.3%
GraphicsMagick - Resizing (Iterations/min)	159
GraphicsMagick - HWB Color Space (Iterations/min)	190
7-Zip Compression - C.S.T (MIPS)	14757
Standard Deviation	0.6%
Bullet Physics Engine - 1000 Stack (sec)	6.07
Standard Deviation	0.3%
Bullet Physics Engine - Convex Trimesh (sec)	1.33
Standard Deviation	0.4%

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SQLite 3.22

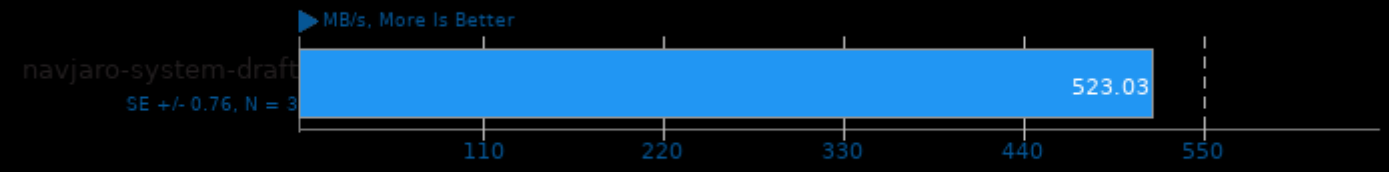
Timed SQLite Insertions



1. (CC) gcc options: -O2 -ledit -ltinfo -lz -ldl -lpthread

Dbench 4.0

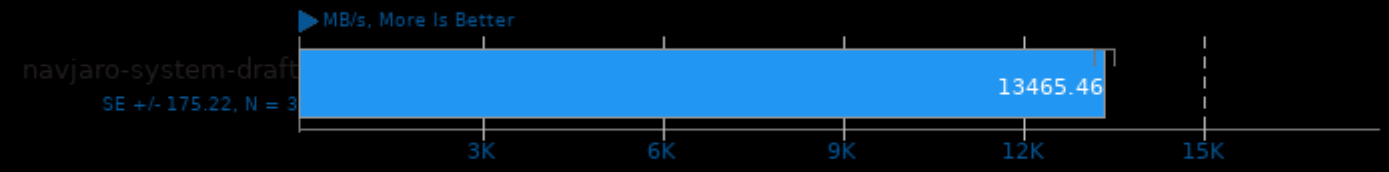
12 Clients



1. (CC) gcc options: -lpopt -O2

Threaded I/O Tester 20170503

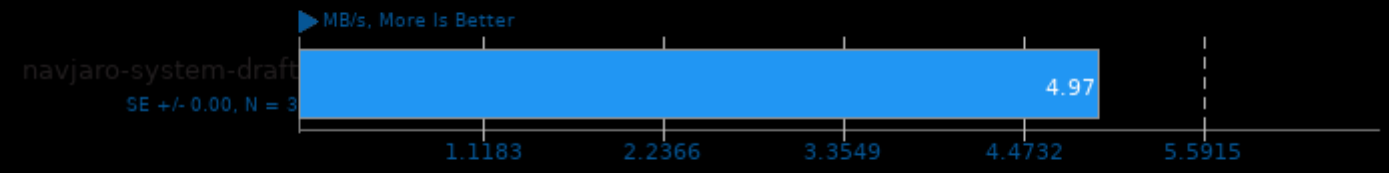
64MB Read - 32 Threads



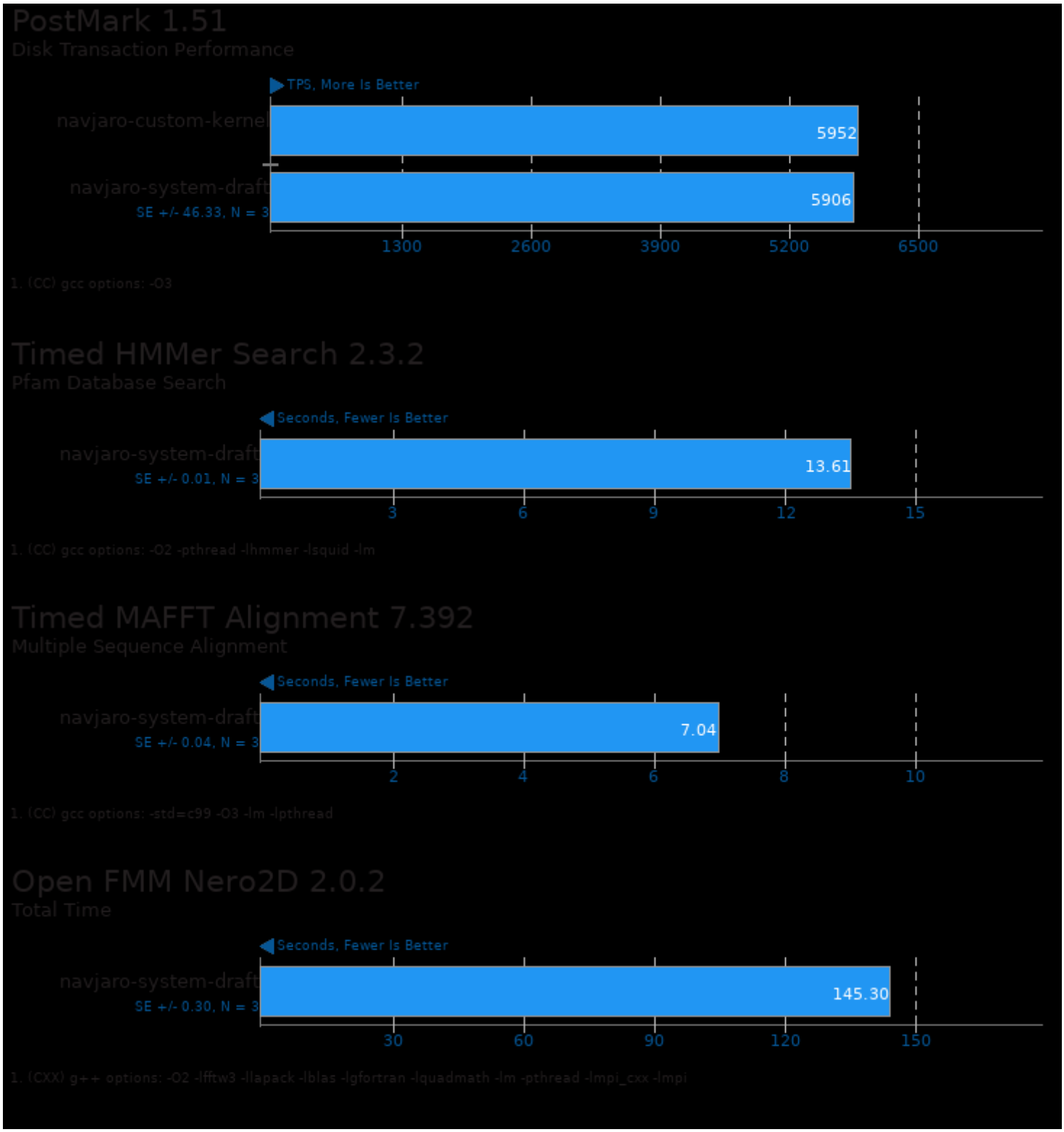
1. (CC) gcc options: -O2

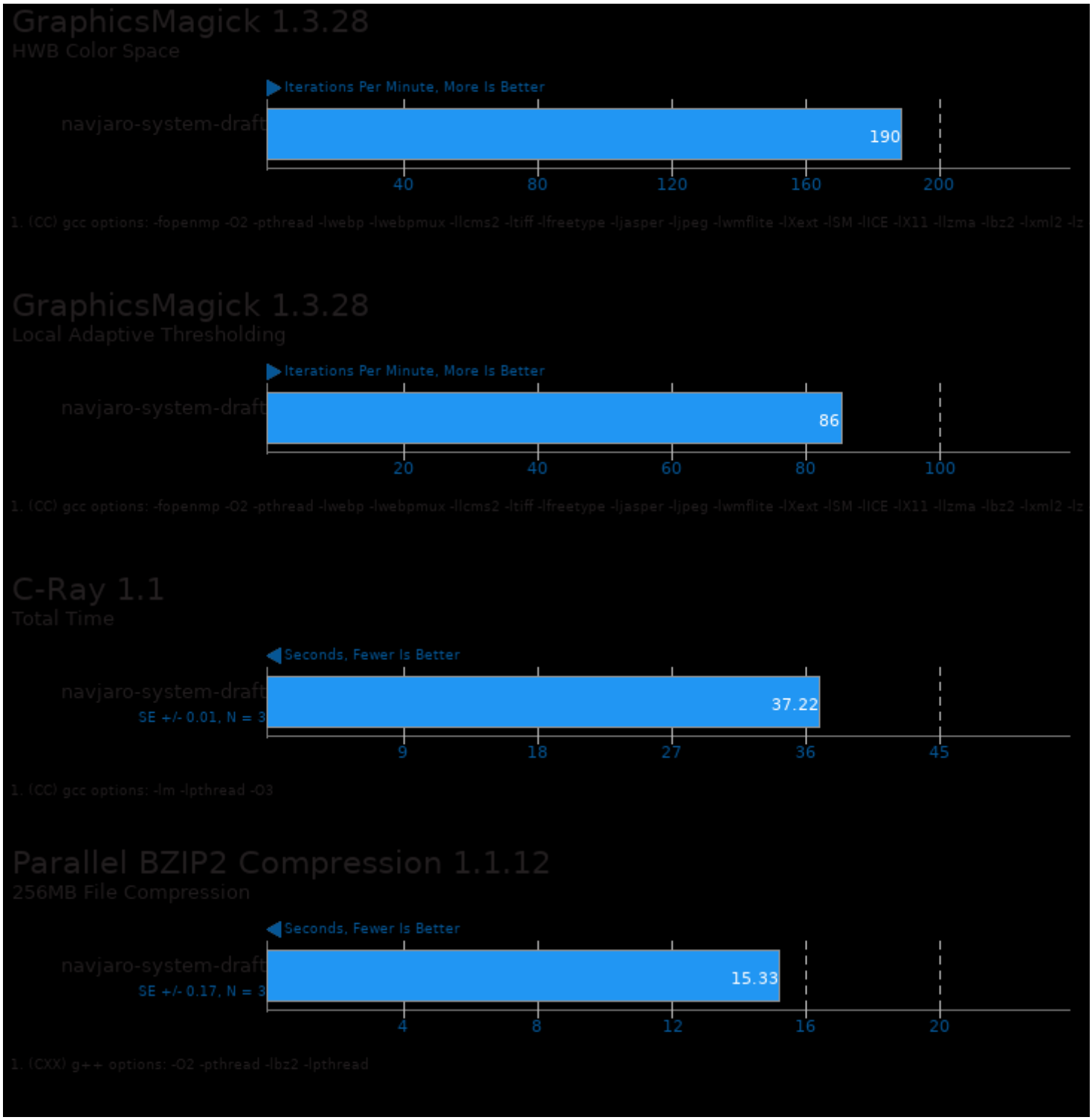
Threaded I/O Tester 20170503

64MB Write - 32 Threads



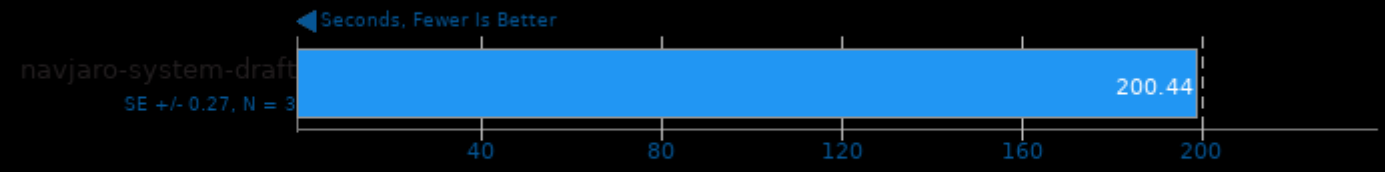
1. (CC) gcc options: -O2


PostMark 1.51
Disk Transaction Performance
TPS, More Is Better
navjaro-custom-kernel
5952
navjaro-system-draft
5906
SE +/- 46.33, N = 3
1300
2600
3900
5200
6500
1. (CC) gcc options: -O3
Timed HMMer Search 2.3.2
Pfam Database Search
Seconds, Fewer Is Better
navjaro-system-draft
13.61
SE +/- 0.01, N = 3
3
6
9
12
15
1. (CC) gcc options: -O2 -pthread -lhmmer -lsquid -lm
Timed MAFFT Alignment 7.392
Multiple Sequence Alignment
Seconds, Fewer Is Better
navjaro-system-draft
7.04
SE +/- 0.04, N = 3
2
4
6
8
10
1. (CC) gcc options: -std=c99 -O3 -lm -lpthread
Open FMM Nero2D 2.0.2
Total Time
Seconds, Fewer Is Better
navjaro-system-draft
145.30
SE +/- 0.30, N = 3
30
60
90
120
150
1. (CXX) g++ options: -O2 -lfftw3 -llapack -lblas -lgfortran -lquadmath -lm -pthread -lmpi_cxx -lmpi


GraphicsMagick 1.3.28
HWB Color Space
Iterations Per Minute, More Is Better
navjaro-system-draft
190
40
80
120
160
200
1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lwebpmux -llcms2 -ltiff -lfreetype -ljasper -ljpeg -lwmflite -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz
GraphicsMagick 1.3.28
Local Adaptive Thresholding
Iterations Per Minute, More Is Better
navjaro-system-draft
86
20
40
60
80
100
1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lwebpmux -llcms2 -ltiff -lfreetype -ljasper -ljpeg -lwmflite -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz
C-Ray 1.1
Total Time
Seconds, Fewer Is Better
navjaro-system-draft
SE +/- 0.01, N = 3
37.22
9
18
27
36
45
1. (CC) gcc options: -lm -lpthread -O3
Parallel BZIP2 Compression 1.1.12
256MB File Compression
Seconds, Fewer Is Better
navjaro-system-draft
SE +/- 0.17, N = 3
15.33
4
8
12
16
20
1. (CXX) g++ options: -O2 -pthread -lbz2 -lpthread

POV-Ray 3.7.0.7

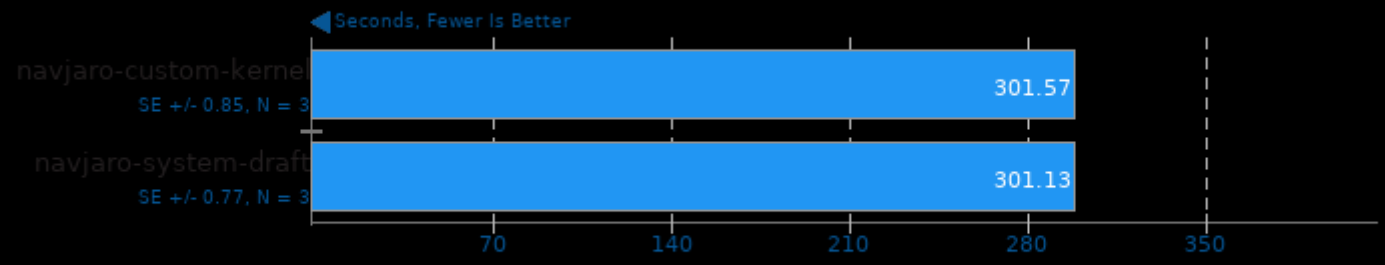
Trace Time



1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -pthread -lSDL -lpthread -lXpm -lSM -lICE -lX11 -lIlmImf -lImath -lHalf -lIex -lIexMath -lIlmThre

LZMA Compression

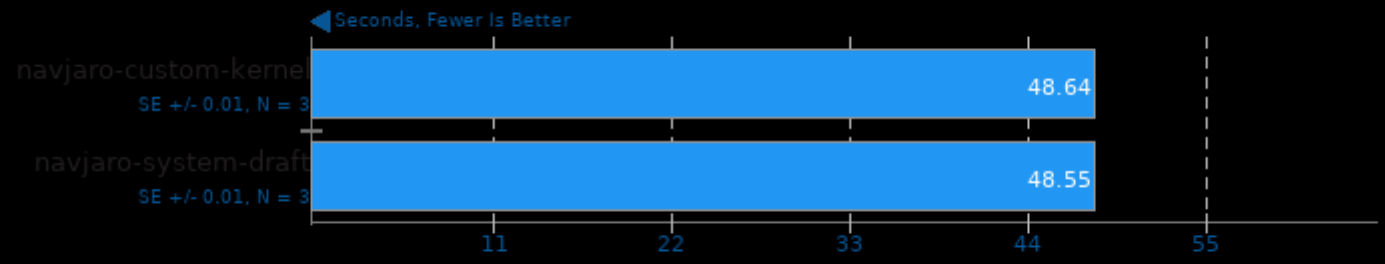
256MB File Compression



1. (CXX) g++ options: -O2

dcraw

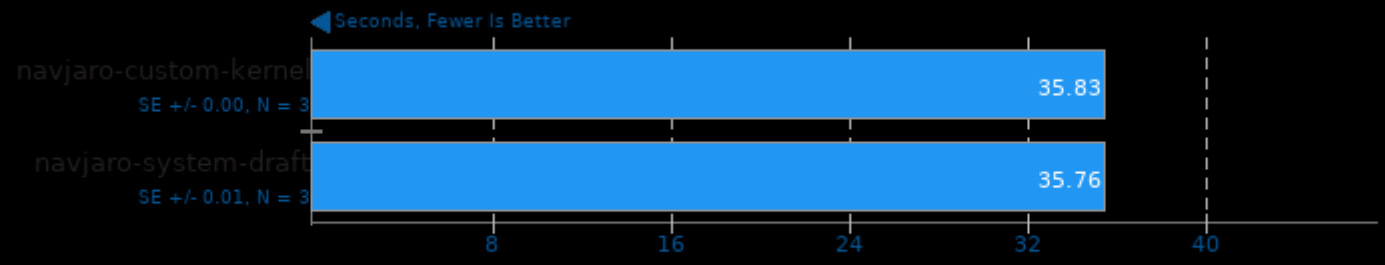
RAW To PPM Image Conversion



1. (CC) gcc options: -lm

LAME MP3 Encoding 3.100

WAV To MP3

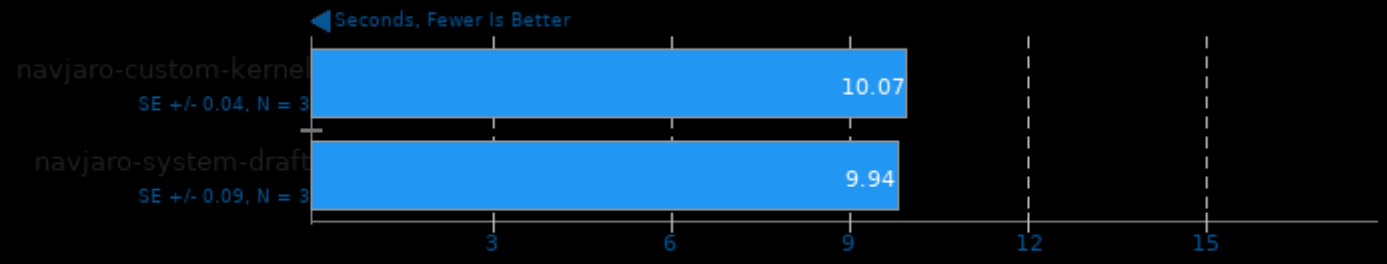


1. (CC) gcc options: -lncurses -lm

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FFmpeg 3.4.1

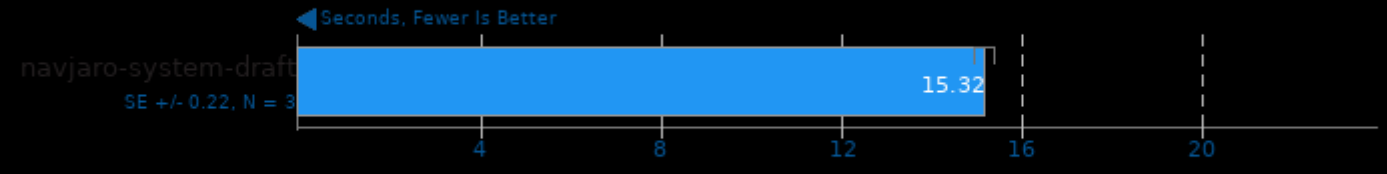
H.264 HD To NTSC DV



1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lXv -lX11 -lXext -pthread -lSDL2 -lvdpau -lva -lva-x11 -lva-dr

GnuPG 1.4.22

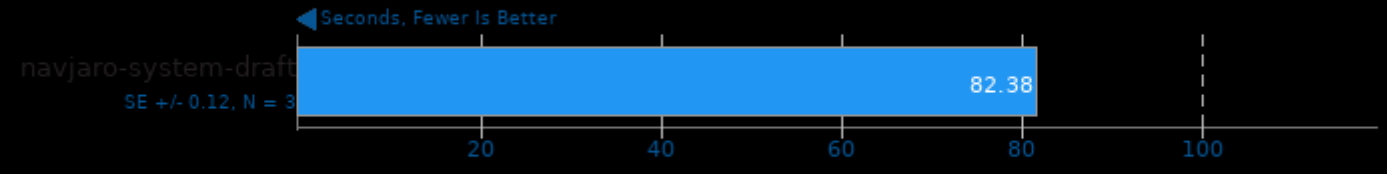
2GB File Encryption



1. (CC) gcc options: -O2 -MT -MD -MP -MF

Minion 1.8

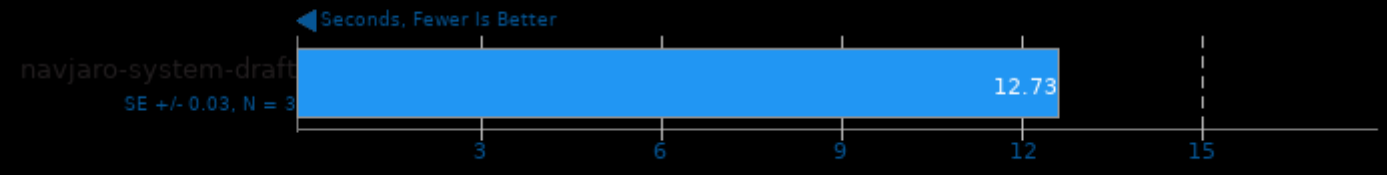
Solitaire



1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

Sudokut 0.4

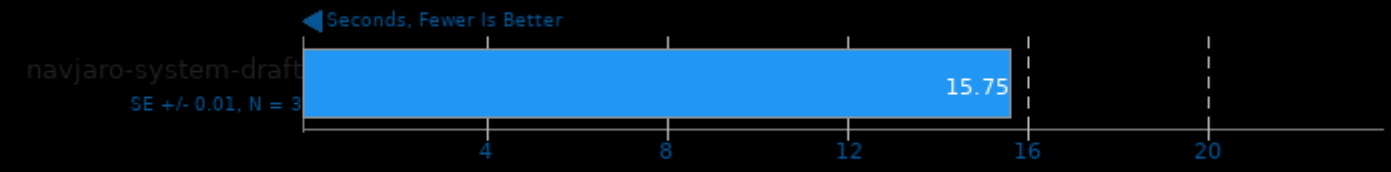
Total Time



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Tachyon 0.98.9

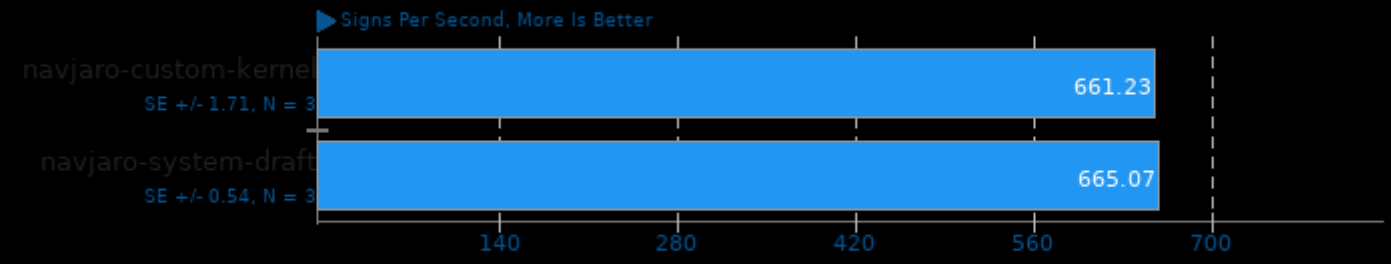
Total Time



1. (CC) gcc options: -m32 -O3 -fomit-frame-pointer -ffast-math -ltachyon -lm -lpthread

OpenSSL 1.1.0f

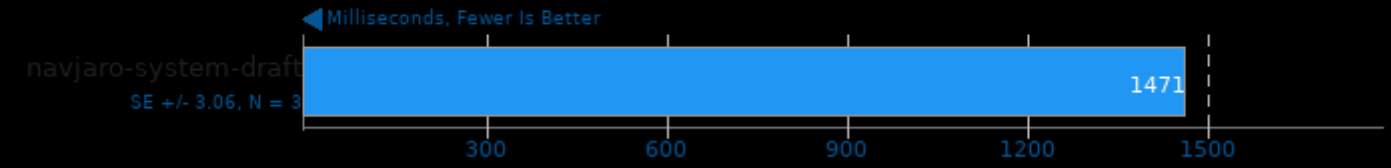
RSA 4096-bit Performance



1. (CC) gcc options: -O3 -pthread -m64 -lssl -lcrypto -ldl

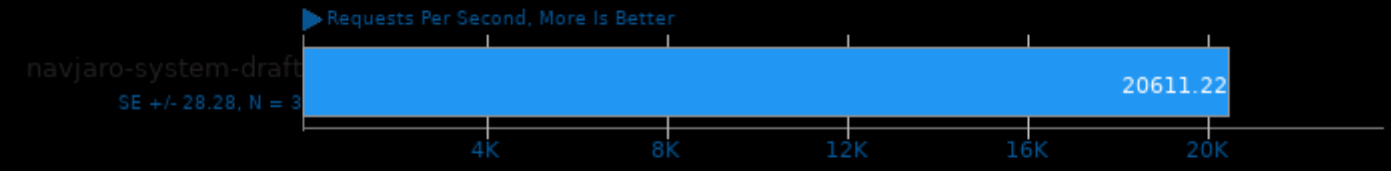
PyBench 2018-02-16

Total For Average Test Times



Apache Benchmark 2.4.29

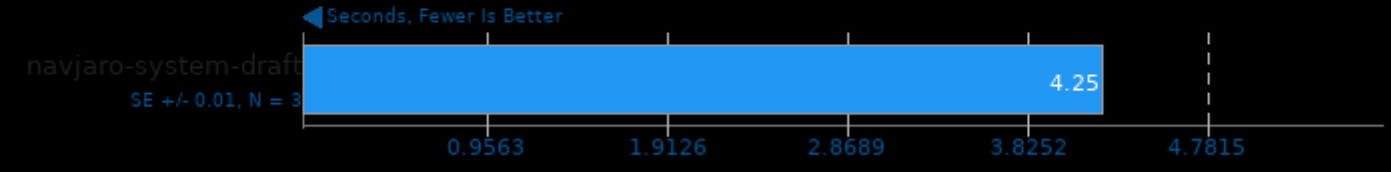
Static Web Page Serving



1. (CC) gcc options: -shared -fPIC -O2 -pthread

Sunflow Rendering System 0.07.2

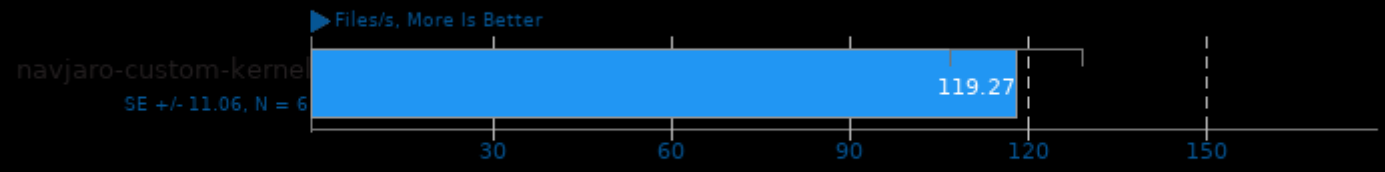
Global Illumination + Image Synthesis



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FS-Mark 3.3

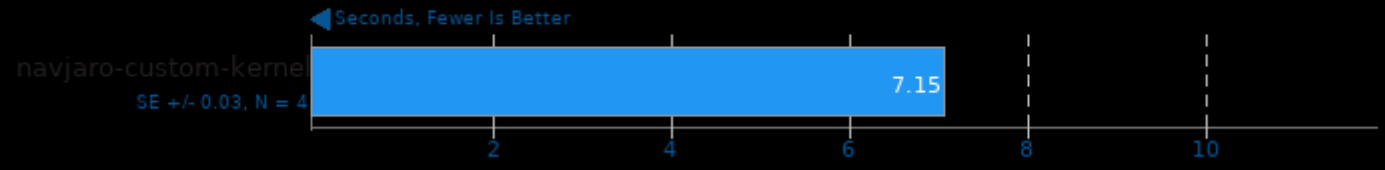
1000 Files, 1MB Size



1. (CC) gcc options: -static

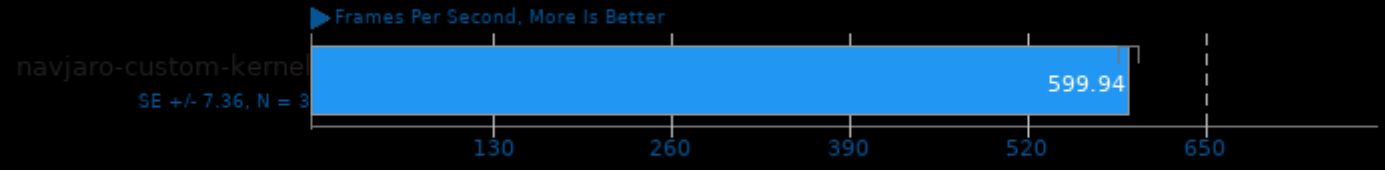
Unpacking The Linux Kernel

linux-4.15.tar.xz



QGears2

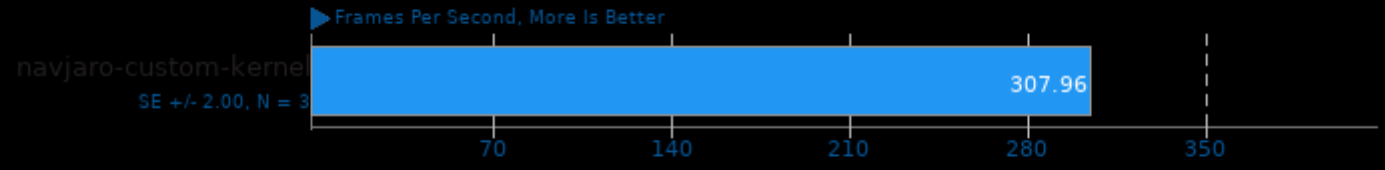
OpenGL + Gears



1. (CXX) g++ options: -lQt5OpenGL -lQt5Widgets -lQt5Gui -lQt5Core -lGL -lpthread

QGears2

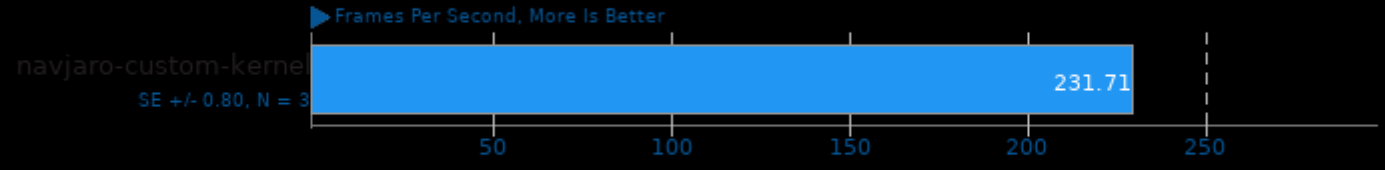
XRender + Text



1. (CXX) g++ options: -lQt5OpenGL -lQt5Widgets -lQt5Gui -lQt5Core -lGL -lpthread

QGears2

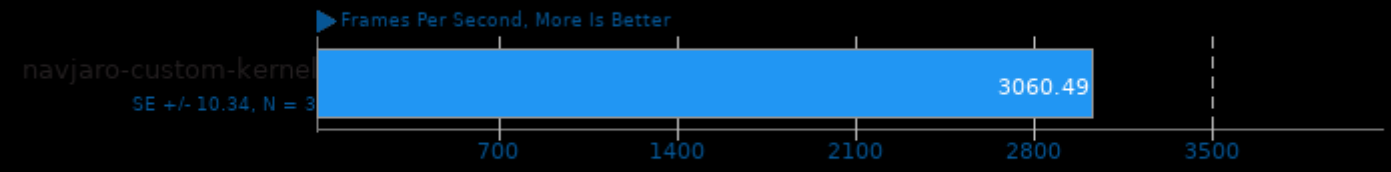
XRender + Gears



1. (CXX) g++ options: -lQt5OpenGL -lQt5Widgets -lQt5Gui -lQt5Core -lGL -lpthread

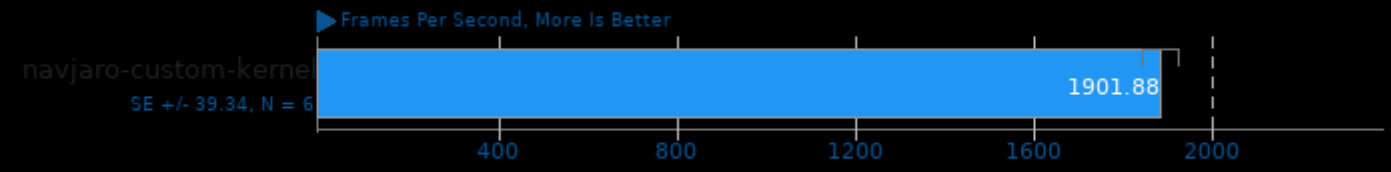
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QGears2
OpenGL + Image Scaling



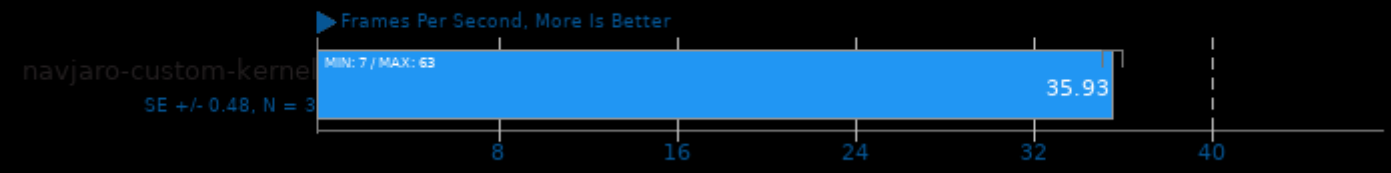
1. (CXX) g++ options: -lQt5OpenGL -lQt5Widgets -lQt5Gui -lQt5Core -lGL -lpthread

QGears2
XRender + Image Scaling

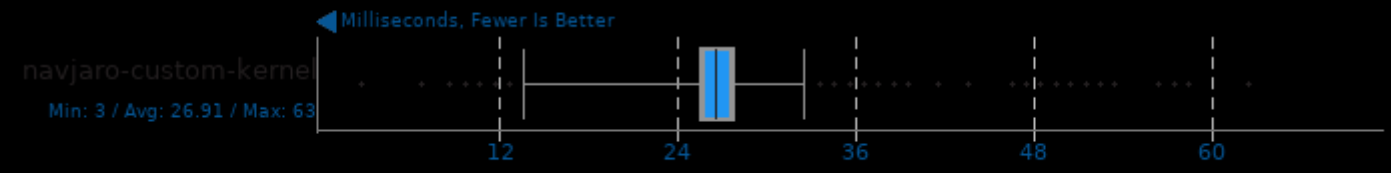


1. (CXX) g++ options: -lQt5OpenGL -lQt5Widgets -lQt5Gui -lQt5Core -lGL -lpthread

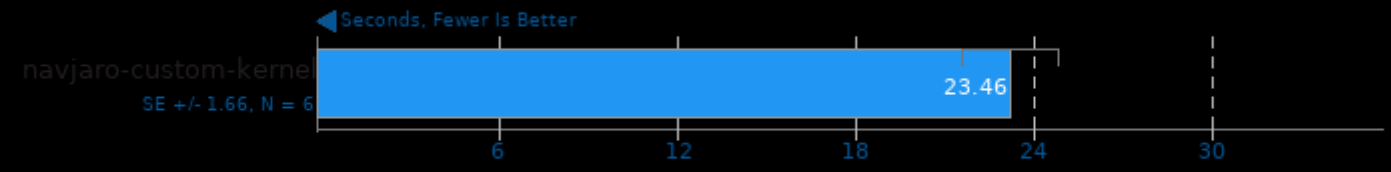
OpenArena 0.8.8
1920 x 1080



OpenArena 0.8.8
1920 x 1080 - Total Frame Time



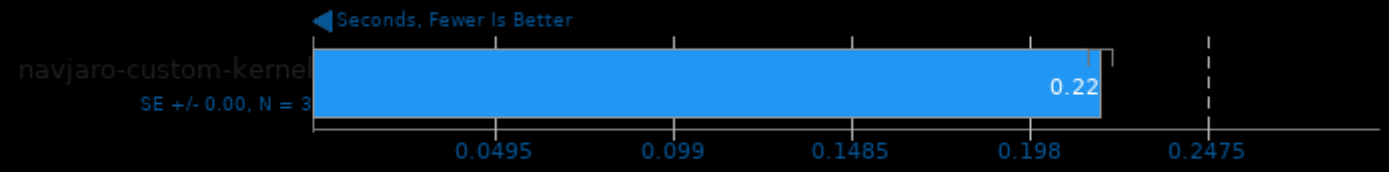
GtkPerf 0.40
GtkComboBox



1. (CC) gcc options: -lgtk-x11-2.0 -latk-1.0 -lgio-2.0 -lpangoft2-1.0 -lfontconfig -lfreetype -lgdk-x11-2.0 -lpangocairo-1.0 -lpango-1.0 -lfribidi -lcairo -lgdk_p

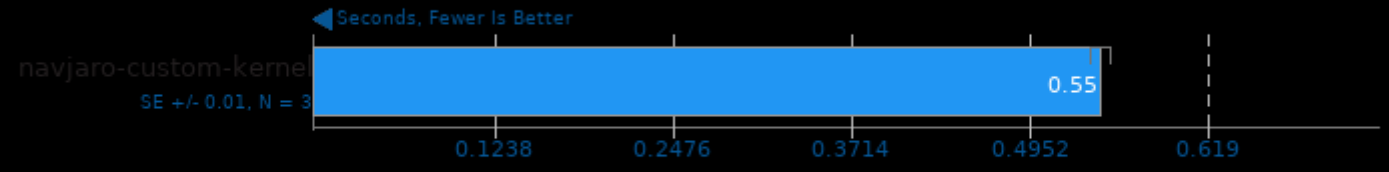
navjack27

GtkPerf 0.40
GtkRadioButton



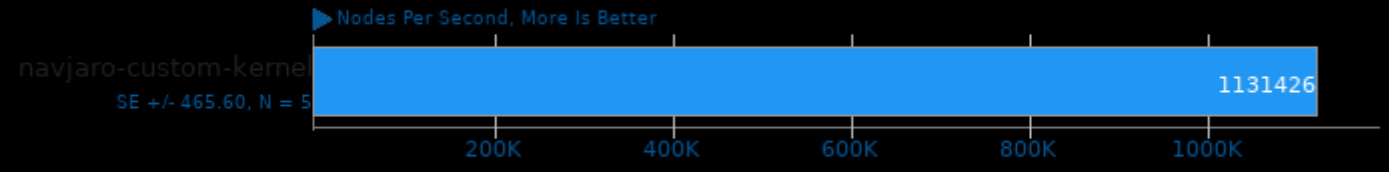
1. (CC) gcc options: -lgtk-x11-2.0 -latk-1.0 -lgio-2.0 -lpangoft2-1.0 -lfontconfig -lfreetype -lgdk-x11-2.0 -lpangocairo-1.0 -lpango-1.0 -lfribidi -lcairo -lgdk_p

GtkPerf 0.40
GtkDrawingArea - Pixbufs



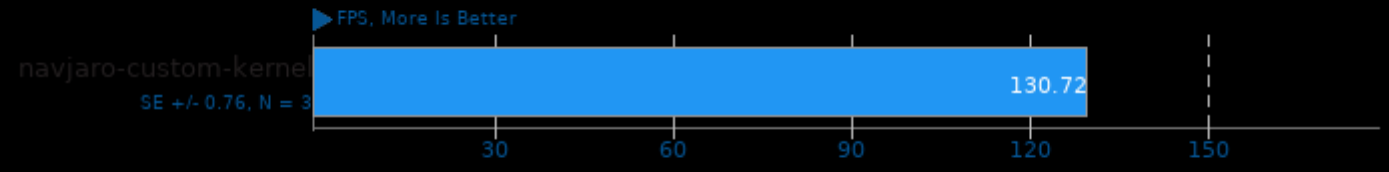
1. (CC) gcc options: -lgtk-x11-2.0 -latk-1.0 -lgio-2.0 -lpangoft2-1.0 -lfontconfig -lfreetype -lgdk-x11-2.0 -lpangocairo-1.0 -lpango-1.0 -lfribidi -lcairo -lgdk_p

TSCP 1.81
AI Chess Performance



1. (CC) gcc options: -O3 -march=native

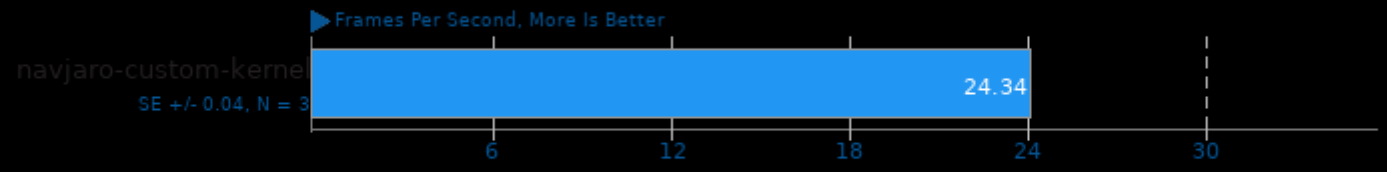
TTSIOD 3D Renderer 2.3a
Phong Rendering With Soft-Shadow Mapping



1. (CXX) g++ options: -O3 -fomit-frame-pointer -ffast-math -mtune=native -flto -msse -mrecip -mfpmath=sse -msse2 -mssse3 -lSDL -lpthread -lstdc++

x264 2018-02-05

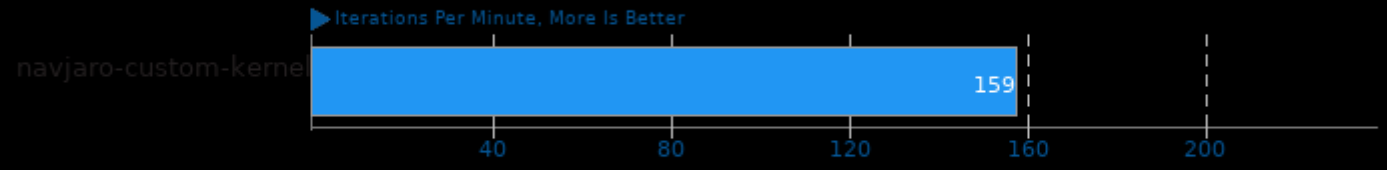
H.264 Video Encoding



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

GraphicsMagick 1.3.28

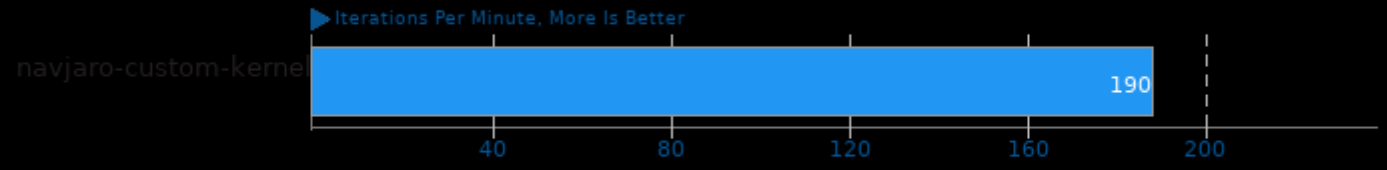
Operation: Resizing



1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lwebpmux -llcms2 -ltiff -lfreetype -ljasper -ljpeg -lwmflite -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz

GraphicsMagick 1.3.28

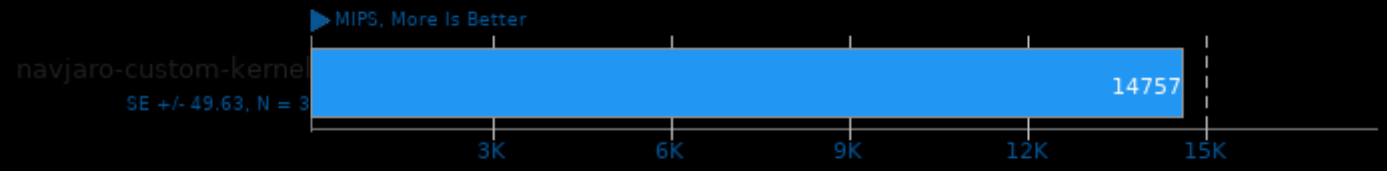
Operation: HWB Color Space



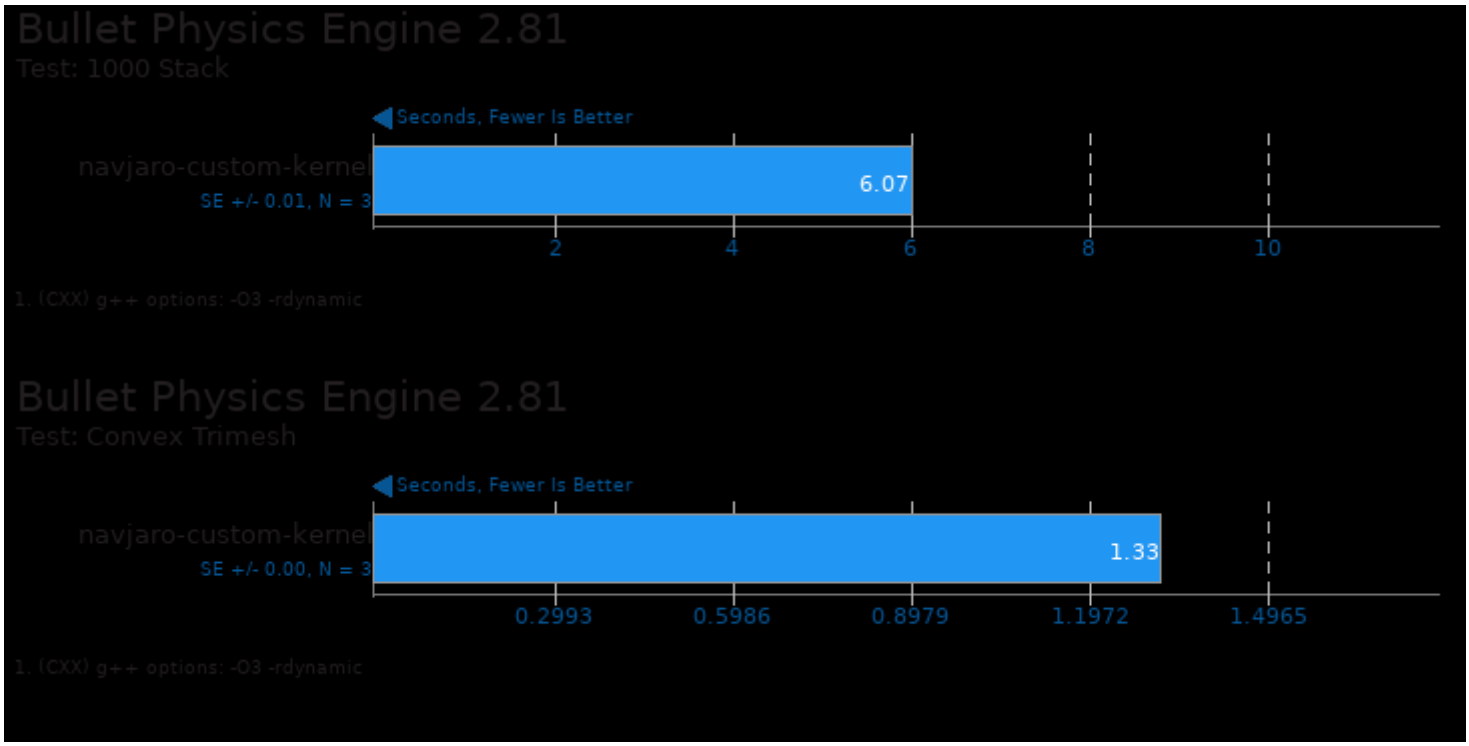
1. (CC) gcc options: -fopenmp -O2 -pthread -lwebp -lwebpmux -llcms2 -ltiff -lfreetype -ljasper -ljpeg -lwmflite -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz

7-Zip Compression 16.02

Compress Speed Test

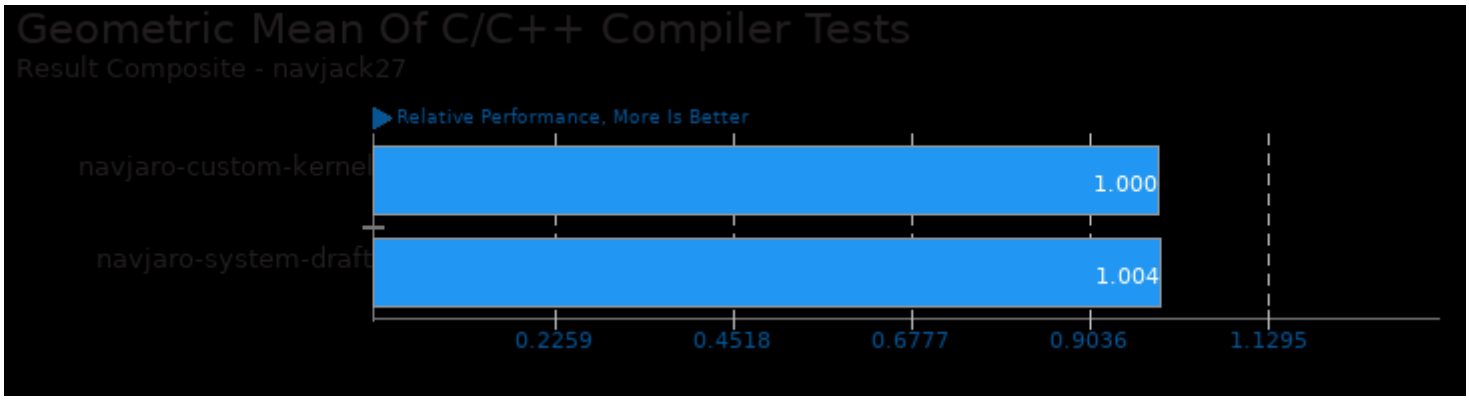


1. (CXX) g++ options: -pipe -lpthread

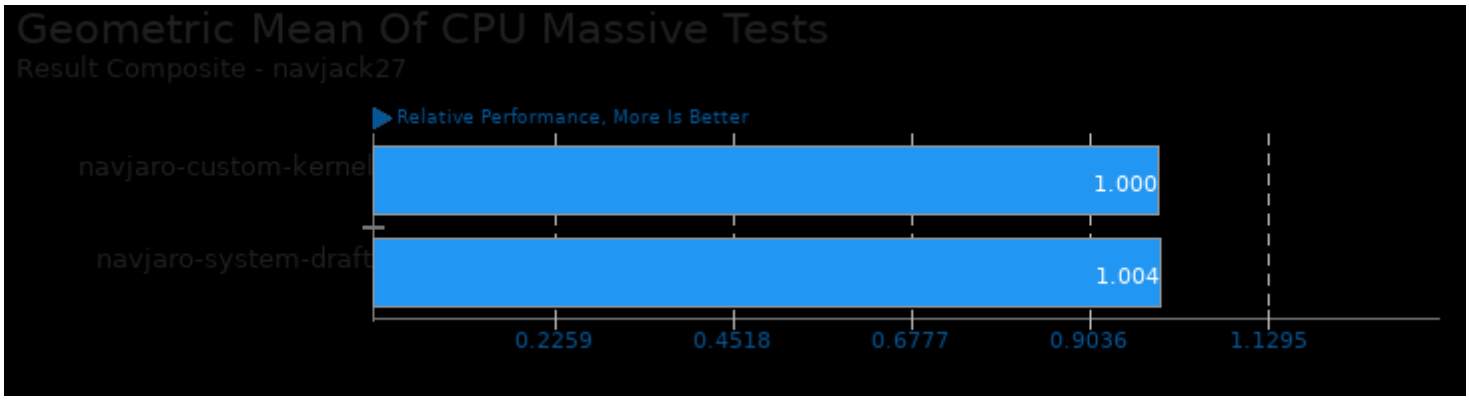

Bullet Physics Engine 2.81
Test: 1000 Stack
Seconds, Fewer Is Better
navjaro-custom-kernel
SE +/- 0.01, N = 3
6.07
2
4
6
8
10
1. (CXX) g++ options: -O3 -rdynamic

Bullet Physics Engine 2.81
Test: Convex Trimesh
Seconds, Fewer Is Better
navjaro-custom-kernel
SE +/- 0.00, N = 3
1.33
0.2993
0.5986
0.8979
1.1972
1.4965
1. (CXX) g++ options: -O3 -rdynamic

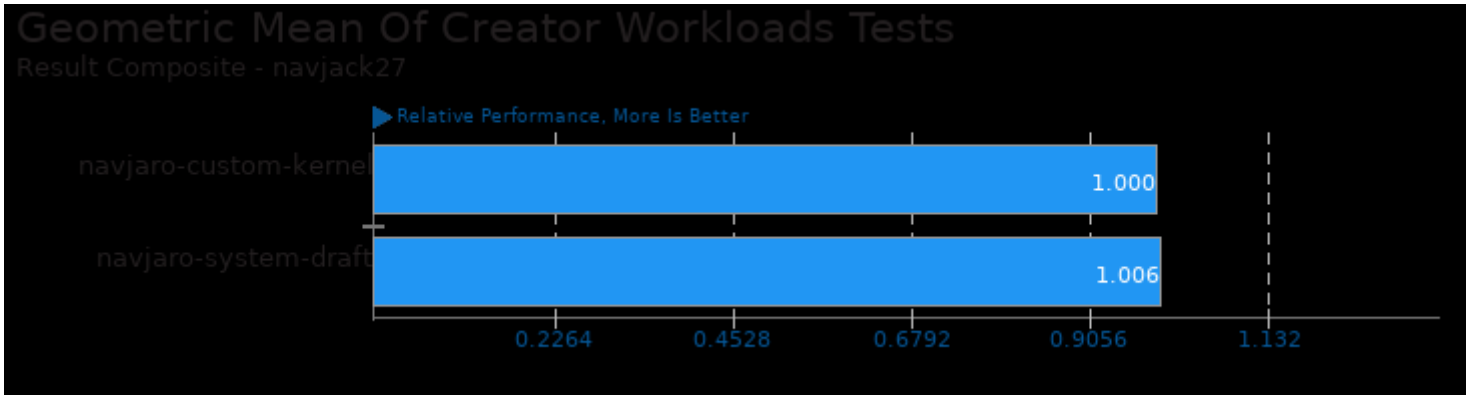
These geometric means are based upon test groupings / test suites for this result file.



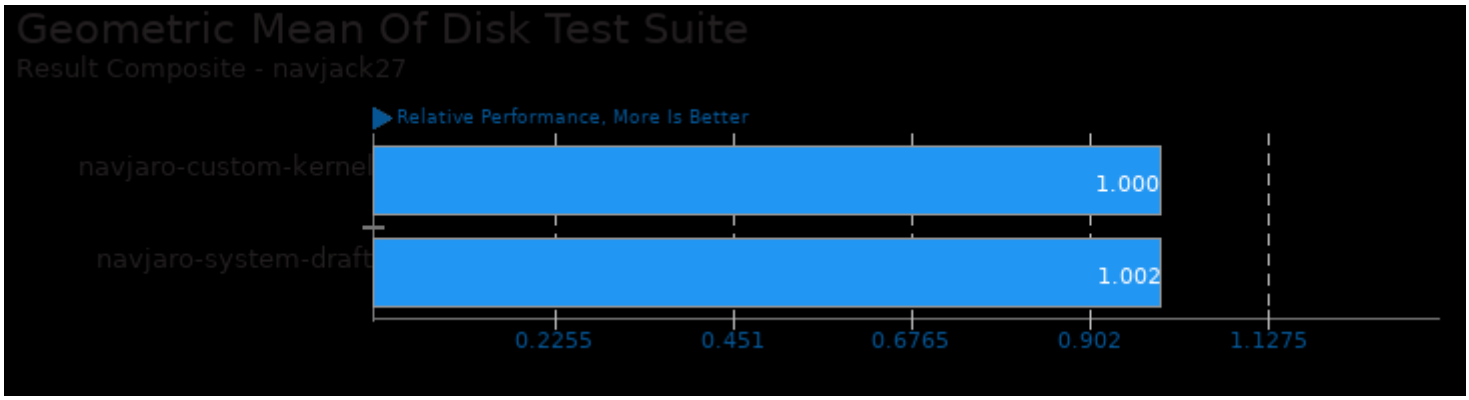
Geometric mean based upon tests: pts/mafft, pts/tscp, pts/graphics-magick, pts/hmmer, pts/c-ray, pts/bullet, pts/compress-7zip, pts/encode-mp3, pts/apache, pts/x264, pts/openssl and pts/tachyon



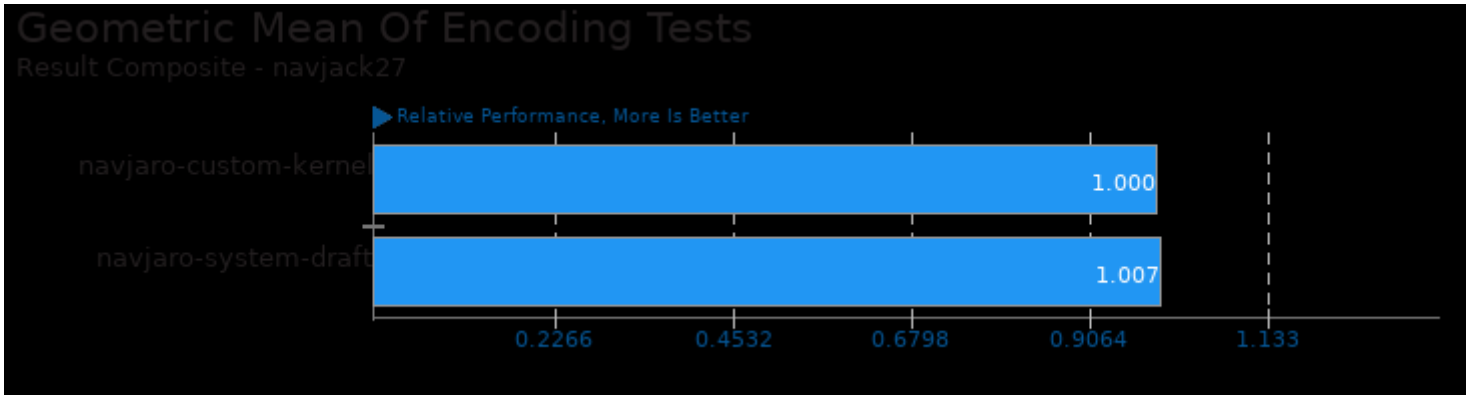
Geometric mean based upon tests: pts/apache, pts/c-ray, pts/compress-7zip, pts/compress-pbzip2, pts/x264, pts/encode-mp3, pts/graphics-magick, pts/hmmer, pts/openssl, pts/mafft, pts/minion, pts/nero2d, pts/povray, pts/tachyon and pts/ttsiod-renderer



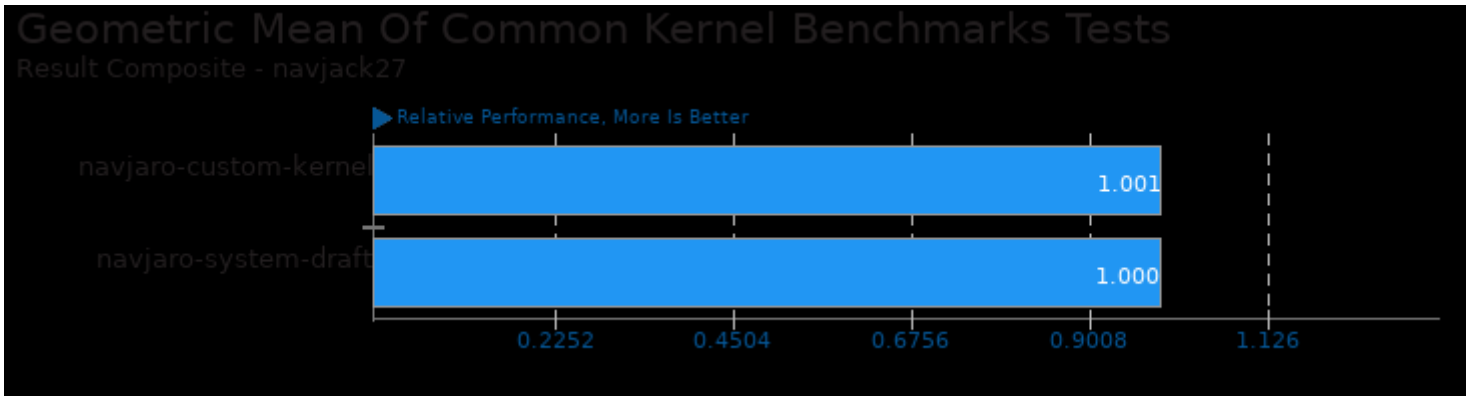
Geometric mean based upon tests: pts/c-ray, pts/tachyon, pts/povray, pts/ttsiod-renderer, pts/x264, pts/ffmpeg, pts/encode-mp3, pts/graphics-magick and pts/dcraw



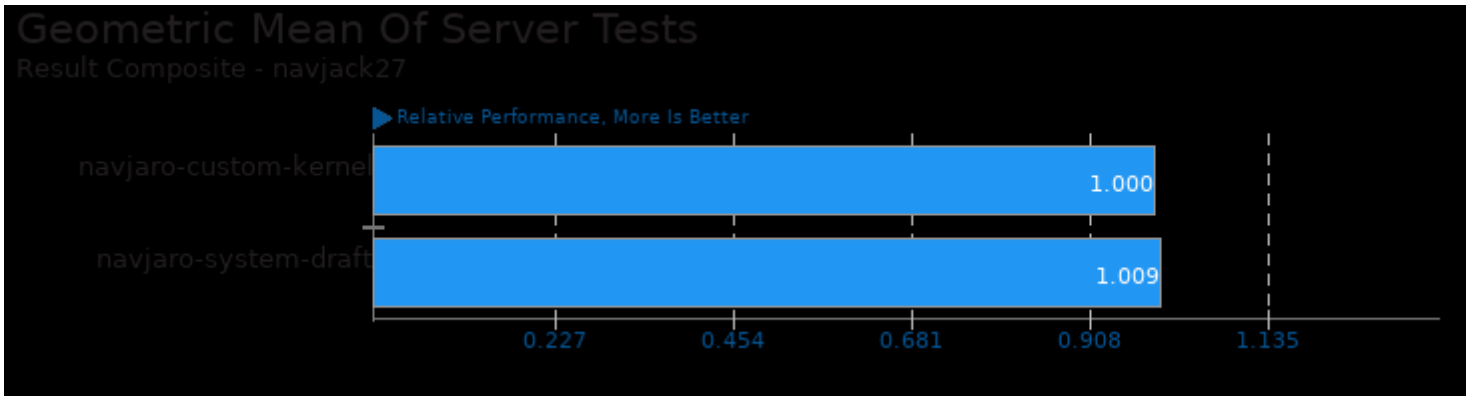
Geometric mean based upon tests: pts/sqlite, pts/fs-mark, pts/dbench and pts/postmark



Geometric mean based upon tests: pts/encode-mp3, pts/x264 and pts/ffmpeg

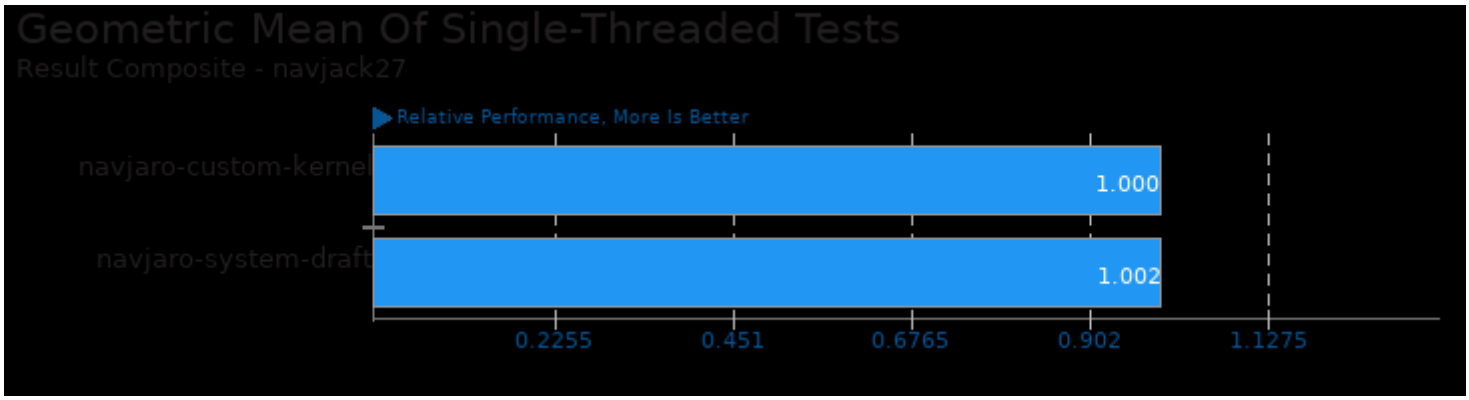


Geometric mean based upon tests: pts/apache, pts/postmark and pts/openssl



Geometric mean based upon tests: pts/apache, pts/openssl and pts/sqlite

navjack27



Geometric mean based upon tests: pts/dcraw, pts/encode-mp3, pts/gnupg, pts/minion, pts/sudokut and pts/pybench

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 16:51.