



# **multicore-40c-dedicated**

## Multicore 40C Dedicated

## Test Systems:

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OS: Ubuntu 20.04, Kernel: 5.4.0-74-generic (x86\_64), Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1024x768, System Layer: KVM

Kernel Notes: Transparent Huge Pages: madvise  
Compiler Notes: --build=x86\_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie  
--enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,am2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch

```
--enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr.hsa --enable-plugin
--enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686
--with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: CPU Microcode: 0x1
```

Java Notes: OpenJDK Runtime Environment (build 11.0.11+9-Ubuntu-0ubuntu2.20.04)

Python Notes: Python 3.8.5

Security Notes: itlb\_multihit: Not affected + l1tf: Mitigation of PTE Inversion; VMX: flush not necessary SMT disabled + mds: Mitigation of Clear buffers; SMT Host state unknown + 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: disabled RSB filling + srbd: Not affected + tsx\_async\_abort: Mitigation of Clear buffers; SMT Host state unknown

## multicore-40c-dedicated

<b>High Performance Conjugate Gradient (GFLOP/s)</b>	23.2948
Standard Deviation	1.3%
<b>NAS Parallel Benchmarks - BT.C (Mop/s)</b>	91164
Standard Deviation	0.2%
<b>NAS Parallel Benchmarks - CG.C (Mop/s)</b>	24273
Standard Deviation	0.4%
<b>NAS Parallel Benchmarks - EP.C (Mop/s)</b>	3694
Standard Deviation	1.7%
<b>NAS Parallel Benchmarks - EP.D (Mop/s)</b>	3767
Standard Deviation	1%
<b>NAS Parallel Benchmarks - FT.C (Mop/s)</b>	43287
Standard Deviation	0.9%
<b>NAS Parallel Benchmarks - IS.D (Mop/s)</b>	1452
Standard Deviation	2%
<b>NAS Parallel Benchmarks - LU.C (Mop/s)</b>	87465
Standard Deviation	0.2%
<b>NAS Parallel Benchmarks - MG.C (Mop/s)</b>	54748
Standard Deviation	0.3%
<b>NAS Parallel Benchmarks - SP.B (Mop/s)</b>	48222
Standard Deviation	0.7%
<b>NAS Parallel Benchmarks - SP.C (Mop/s)</b>	40271
Standard Deviation	0.3%
<b>Rodinia - OpenMP LavaMD (sec)</b>	116.215
Standard Deviation	0.1%
<b>Rodinia - OpenMP HotSpot3D (sec)</b>	114.767
Standard Deviation	2.2%
<b>Rodinia - OpenMP Leukocyte (sec)</b>	50.305
Standard Deviation	0.8%
<b>Rodinia - OpenMP CFD Solver (sec)</b>	9.543
Standard Deviation	2.4%
<b>Rodinia - O.S (sec)</b>	18.313
Standard Deviation	6.4%
<b>NAMD - ATPase Simulation - 327,506 Atoms (days/ns)</b>	0.76325
Standard Deviation	0.4%
<b>Pennant - sedovbig (Hydro Cycle Time - sec)</b>	34.72912
Standard Deviation	0.9%
<b>Pennant - leblancbig (Hydro Cycle Time - sec)</b>	14.13049
Standard Deviation	0.4%
<b>LAMMPS Molecular Dynamics Simulator - 20k Atoms (ns/day)</b>	15.703
Standard Deviation	0.2%

<b>LAMMPS Molecular Dynamics Simulator - Rhodopsin Protein</b>	15.998
Standard Deviation	1%
<b>libgav1 - Chimera 1080p (FPS)</b>	90.63
Standard Deviation	0.5%
<b>libgav1 - Summer Nature 4K (FPS)</b>	34.63
Standard Deviation	1.4%
<b>libgav1 - S.N.1 (FPS)</b>	107.96
Standard Deviation	0.8%
<b>libgav1 - C.1.1.b (FPS)</b>	42.63
Standard Deviation	0.5%
<b>Zstd Compression - 3 - Compression Speed (MB/s)</b>	2513
Standard Deviation	8.6%
<b>Zstd Compression - 3 - D.S (MB/s)</b>	2341
Standard Deviation	0.9%
<b>Zstd Compression - 8 - Compression Speed (MB/s)</b>	1398
Standard Deviation	1.8%
<b>Zstd Compression - 8 - D.S (MB/s)</b>	2333
Standard Deviation	0.8%
<b>Zstd Compression - 19 - Compression Speed (MB/s)</b>	55.5
Standard Deviation	2.5%
<b>Zstd Compression - 19 - D.S (MB/s)</b>	1932
Standard Deviation	1.1%
<b>Zstd Compression - 3, Long Mode - Compression Speed (MB/s)</b>	748.2
Standard Deviation	1.3%
<b>Zstd Compression - 3, Long Mode - D.S (MB/s)</b>	2468
Standard Deviation	0.2%
<b>Zstd Compression - 8, Long Mode - Compression Speed (MB/s)</b>	692.4
Standard Deviation	0.6%
<b>Zstd Compression - 8, Long Mode - D.S (MB/s)</b>	2452
Standard Deviation	0.4%
<b>Zstd Compression - 19, Long Mode - Compression Speed (MB/s)</b>	26.9
Standard Deviation	3.3%
<b>Zstd Compression - 19, Long Mode - D.S (MB/s)</b>	1996
Standard Deviation	0.5%
<b>ArrayFire - BLAS CPU (GFLOPS)</b>	3566
Standard Deviation	2.4%
<b>John The Ripper - Blowfish (Real C/S)</b>	41444
Standard Deviation	0.1%
<b>John The Ripper - MD5 (Real C/S)</b>	4155333
Standard Deviation	0.2%
<b>LuxCoreRender - DLSC - CPU (M samples/sec)</b>	3.34
Standard Deviation	0.6%
<b>LuxCoreRender - Danish Mood - CPU (M samples/sec)</b>	2.19
Standard Deviation	0.8%
<b>LuxCoreRender - Orange Juice - CPU (M samples/sec)</b>	5.01
Standard Deviation	0.3%
<b>LuxCoreRender - LuxCore Benchmark - CPU (M samples/sec)</b>	2.33
Standard Deviation	5.3%
<b>LuxCoreRender - R.C.a.P - CPU (M samples/sec)</b>	5.92
Standard Deviation	16.7%
<b>GraphicsMagick - Swirl (Iterations/min)</b>	804
Standard Deviation	0.2%
<b>GraphicsMagick - Rotate (Iterations/min)</b>	505

	Standard Deviation	1.5%
<b>GraphicsMagick - Sharpen (Iterations/min)</b>	219	
<b>GraphicsMagick - Enhanced (Iterations/min)</b>	505	
	Standard Deviation	0.2%
<b>GraphicsMagick - Resizing (Iterations/min)</b>	1523	
	Standard Deviation	0.4%
<b>GraphicsMagick - Noise-Gaussian (Iterations/min)</b>	346	
<b>GraphicsMagick - HWB Color Space (Iterations/min)</b>	699	
	Standard Deviation	1%
<b>dav1d - Chimera 1080p (FPS)</b>	595.53	
	Standard Deviation	0.1%
<b>dav1d - Summer Nature 4K (FPS)</b>	228.22	
	Standard Deviation	0.3%
<b>dav1d - S.N.1 (FPS)</b>	587.06	
	Standard Deviation	0.4%
<b>dav1d - C.1.1.b (FPS)</b>	417.27	
	Standard Deviation	0.2%
<b>OSPray - San Miguel - SciVis (FPS)</b>	27.78	
	Standard Deviation	0%
<b>OSPray - XFrog Forest - SciVis (FPS)</b>	4.65	
	Standard Deviation	0%
<b>OSPray - San Miguel - Path Tracer (FPS)</b>	2.29	
	Standard Deviation	0.1%
<b>OSPray - NASA Streamlines - SciVis (FPS)</b>	34.48	
	Standard Deviation	0%
<b>OSPray - XFrog Forest - Path Tracer (FPS)</b>	2.52	
	Standard Deviation	0.3%
<b>OSPray - M.R - SciVis (FPS)</b>	32.26	
	Standard Deviation	0%
<b>OSPray - NASA Streamlines - Path Tracer (FPS)</b>	6.76	
	Standard Deviation	0%
<b>OSPray - M.R - Path Tracer (FPS)</b>	333.33	
	Standard Deviation	0%
<b>TTSIOD 3D Renderer - P.R.W.S.S.M (FPS)</b>	555.052	
	Standard Deviation	2.5%
<b>AOM AV1 - Speed 0 Two-Pass - Bosphorus 4K (FPS)</b>	0.14	
	Standard Deviation	0%
<b>AOM AV1 - Speed 4 Two-Pass - Bosphorus 4K (FPS)</b>	3.08	
	Standard Deviation	0.5%
<b>AOM AV1 - Speed 6 Realtime - Bosphorus 4K (FPS)</b>	13.08	
	Standard Deviation	1.6%
<b>AOM AV1 - Speed 6 Two-Pass - Bosphorus 4K (FPS)</b>	5.41	
	Standard Deviation	2.3%
<b>AOM AV1 - Speed 8 Realtime - Bosphorus 4K (FPS)</b>	29.70	
	Standard Deviation	0.8%
<b>AOM AV1 - Speed 9 Realtime - Bosphorus 4K (FPS)</b>	35.42	
	Standard Deviation	2.3%
<b>AOM AV1 - Speed 0 Two-Pass - Bosphorus 1080p (FPS)</b>	0.37	
	Standard Deviation	1.5%
<b>AOM AV1 - Speed 4 Two-Pass - Bosphorus 1080p (FPS)</b>	5.18	
	Standard Deviation	0.8%
<b>AOM AV1 - Speed 6 Realtime - Bosphorus 1080p (FPS)</b>	20.71	
	Standard Deviation	0.3%

<b>AOM AV1 - Speed 6 Two-Pass - Bosphorus 1080p (FPS)</b>	14.39
Standard Deviation	1.3%
<b>AOM AV1 - Speed 8 Realtime - Bosphorus 1080p (FPS)</b>	70.35
Standard Deviation	2.4%
<b>AOM AV1 - Speed 9 Realtime - Bosphorus 1080p (FPS)</b>	80.96
Standard Deviation	3.1%
<b>Embree - Pathtracer - Crown (FPS)</b>	20.1671
Standard Deviation	0.2%
<b>Embree - Pathtracer ISPC - Crown (FPS)</b>	17.6850
Standard Deviation	1.2%
<b>Embree - Pathtracer - Asian Dragon (FPS)</b>	21.6088
Standard Deviation	0.8%
<b>Embree - Pathtracer - Asian Dragon Obj (FPS)</b>	20.5678
Standard Deviation	0.3%
<b>Embree - Pathtracer ISPC - Asian Dragon (FPS)</b>	21.6168
Standard Deviation	2.7%
<b>Embree - Pathtracer ISPC - Asian Dragon Obj (FPS)</b>	19.8123
Standard Deviation	0.6%
<b>Kvazaar - Bosphorus 4K - Slow (FPS)</b>	8.96
Standard Deviation	3.1%
<b>Kvazaar - Bosphorus 4K - Medium (FPS)</b>	9.28
Standard Deviation	0.3%
<b>Kvazaar - Bosphorus 1080p - Slow (FPS)</b>	29.53
Standard Deviation	2.6%
<b>Kvazaar - Bosphorus 1080p - Medium (FPS)</b>	30.66
Standard Deviation	0.1%
<b>Kvazaar - Bosphorus 4K - Very Fast (FPS)</b>	21.14
Standard Deviation	0.2%
<b>Kvazaar - Bosphorus 4K - Ultra Fast (FPS)</b>	33.67
Standard Deviation	0.1%
<b>Kvazaar - Bosphorus 1080p - Very Fast (FPS)</b>	66.21
Standard Deviation	0.4%
<b>Kvazaar - Bosphorus 1080p - Ultra Fast (FPS)</b>	109.04
Standard Deviation	0.8%
<b>rav1e - 1 (FPS)</b>	0.351
Standard Deviation	0.6%
<b>rav1e - 5 (FPS)</b>	0.982
Standard Deviation	0.4%
<b>rav1e - 6 (FPS)</b>	1.281
Standard Deviation	0.4%
<b>rav1e - 10 (FPS)</b>	2.868
Standard Deviation	0.5%
<b>SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)</b>	1.363
Standard Deviation	0.8%
<b>SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)</b>	15.703
Standard Deviation	5.1%
<b>SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)</b>	4.300
Standard Deviation	0%
<b>SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)</b>	60.128
Standard Deviation	4.5%
<b>SVT-HEVC - 1 - Bosphorus 1080p (FPS)</b>	16.95
Standard Deviation	2.3%
<b>SVT-HEVC - 7 - Bosphorus 1080p (FPS)</b>	212.54

<b>SVT-HEVC - 10 - Bosphorus 1080p (FPS)</b>	371.16	Standard Deviation 0.2%
<b>SVT-VP9 - VMAF Optimized - Bosphorus 1080p (FPS)</b>	265.78	Standard Deviation 1.1%
<b>SVT-VP9 - P.S.O - Bosphorus 1080p (FPS)</b>	286.91	Standard Deviation 21.2%
<b>SVT-VP9 - V.Q.O - Bosphorus 1080p (FPS)</b>	239.63	Standard Deviation 0.3%
<b>VP9 libvpx Encoding - Speed 0 - Bosphorus 4K (FPS)</b>	3.85	Standard Deviation 0.4%
<b>VP9 libvpx Encoding - Speed 5 - Bosphorus 4K (FPS)</b>	7.78	Standard Deviation 0%
<b>VP9 libvpx Encoding - Speed 0 - Bosphorus 1080p (FPS)</b>	8.77	Standard Deviation 0.3%
<b>VP9 libvpx Encoding - Speed 5 - Bosphorus 1080p (FPS)</b>	16.53	Standard Deviation 1.9%
<b>x264 - H.2.V.E (FPS)</b>	136.22	Standard Deviation 0.3%
<b>x265 - Bosphorus 4K (FPS)</b>	18.70	Standard Deviation 16.8%
<b>x265 - Bosphorus 1080p (FPS)</b>	55.13	Standard Deviation 0.6%
<b>ACES DGEMM - S.F.P.R (GFLOP/s)</b>	5.880612	Standard Deviation 3.4%
<b>Intel Open Image Denoise - RT.hdr_alb_nrm.3840x2160 (Images / sec)</b>	0.80	Standard Deviation 1.9%
<b>Intel Open Image Denoise - RT.ldr_alb_nrm.3840x2160 (Images / sec)</b>	0.77	Standard Deviation 2.5%
<b>Intel Open Image Denoise - RTLightmap.hdr.4096x4096 (Images / sec)</b>	0.38	Standard Deviation 0.3%
<b>OpenVKL - vklBenchmark (Items / Sec)</b>	280	Standard Deviation 0.9%
<b>OpenVKL - vklBenchmarkVdbVolume (Items / Sec)</b>	19501450	Standard Deviation 2.5%
<b>OpenVKL - vklBenchmarkStructuredVolume (Items / Sec)</b>	75140916	Standard Deviation 2.5%
<b>OpenVKL - vklBenchmarkUnstructuredVolume (Items / Sec)</b>	1785584	Standard Deviation 0.2%
<b>Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec)</b>	805874	Standard Deviation 0.6%
<b>7-Zip Compression - C.S.T (MIPS)</b>	94158	Standard Deviation 4.4%
<b>Stockfish - Total Time (Nodes/s)</b>	52467283	Standard Deviation 2.3%
<b>asmFish - 1.H.M.2.D (Nodes/s)</b>	57596798	Standard Deviation 0.4%
<b>Swet - Average (Operations/sec)</b>	566525966	Standard Deviation 2.7%
<b>ebizzy (Records/s)</b>	1274538	Standard Deviation 1%
<b>libavif avifenc - 0 (sec)</b>	70.651	Standard Deviation 0.5%

<b>libavif avifenc - 2 (sec)</b>	38.687
Standard Deviation	1.5%
<b>libavif avifenc - 6 (sec)</b>	15.778
Standard Deviation	2.6%
<b>libavif avifenc - 10 (sec)</b>	6.319
Standard Deviation	2%
<b>libavif avifenc - 6, Lossless (sec)</b>	39.751
Standard Deviation	1.2%
<b>libavif avifenc - 10, Lossless (sec)</b>	9.562
Standard Deviation	1.2%
<b>Timed Apache Compilation - Time To Compile (sec)</b>	26.351
Standard Deviation	0%
<b>Timed FFmpeg Compilation - Time To Compile (sec)</b>	36.416
Standard Deviation	0.8%
<b>Timed GCC Compilation - Time To Compile (sec)</b>	917.774
Standard Deviation	0.4%
<b>Timed GDB GNU Debugger Compilation - Time To Compile (sec)</b>	64.053
Standard Deviation	0.5%
<b>Timed Godot Game Engine Compilation - Time To Compile (sec)</b>	88.502
Standard Deviation	0.9%
<b>Timed ImageMagick Compilation - Time To Compile (sec)</b>	24.175
Standard Deviation	1.8%
<b>Timed Linux Kernel Compilation - Time To Compile (sec)</b>	49.674
Standard Deviation	3%
<b>Timed LLVM Compilation - Ninja (sec)</b>	328.125
Standard Deviation	0.2%
<b>Timed LLVM Compilation - Unix Makefiles (sec)</b>	393.574
Standard Deviation	2.4%
<b>Timed MPlayer Compilation - Time To Compile (sec)</b>	20.578
Standard Deviation	0.5%
<b>Timed Node.js Compilation - Time To Compile (sec)</b>	225.060
Standard Deviation	0.5%
<b>Timed PHP Compilation - Time To Compile (sec)</b>	54.805
Standard Deviation	1.4%
<b>Build2 - Time To Compile (sec)</b>	80.610
Standard Deviation	0.6%
<b>C-Ray - Total Time - 4.1.R.P.P (sec)</b>	26.753
Standard Deviation	0.2%
<b>Parallel BZIP2 Compression - 2.F.C (sec)</b>	2.331
Standard Deviation	6.3%
<b>POV-Ray - Trace Time (sec)</b>	51.711
Standard Deviation	70.5%
<b>Primesieve - 1.P.N.G (sec)</b>	9.805
Standard Deviation	0.6%
<b>Rust Mandelbrot - T.T.C.S.P.M (sec)</b>	51.940
Standard Deviation	0.3%
<b>Rust Prime Benchmark - P.N.T.T.2.0.0 (sec)</b>	6.003
Standard Deviation	1.5%
<b>Smallpt - G.I.R.1.S (sec)</b>	5.626
Standard Deviation	4.1%
<b>Tungsten Renderer - Hair (sec)</b>	14.4265
Standard Deviation	0.2%
<b>Tungsten Renderer - Water Caustic (sec)</b>	27.6054

	Standard Deviation	0.6%
<b>Tungsten Renderer - Non-Exponential (sec)</b>		9.10019
	Standard Deviation	13.1%
<b>Tungsten Renderer - Volumetric Caustic (sec)</b>		15.8345
	Standard Deviation	1%
<b>YafaRay - T.T.F.S.S (sec)</b>		133.391
	Standard Deviation	4.4%
<b>rays1bench - Large Scene (mrays/s)</b>		121.03
	Standard Deviation	0.6%
<b>oneDNN - IP Shapes 1D - f32 - CPU (ms)</b>		1.50456
	Standard Deviation	0.5%
<b>oneDNN - IP Shapes 3D - f32 - CPU (ms)</b>		6.72777
	Standard Deviation	18.2%
<b>oneDNN - IP Shapes 1D - u8s8f32 - CPU (ms)</b>		0.884171
	Standard Deviation	0.1%
<b>oneDNN - IP Shapes 3D - u8s8f32 - CPU (ms)</b>		1.056903
	Standard Deviation	3.8%
<b>oneDNN - IP Shapes 1D - bf16bf16bf16 - CPU (ms)</b>		4.68429
	Standard Deviation	0.2%
<b>oneDNN - IP Shapes 3D - bf16bf16bf16 - CPU (ms)</b>		7.21802
	Standard Deviation	10%
<b>oneDNN - C.B.S.A - f32 - CPU (ms)</b>		6.10513
	Standard Deviation	0.1%
<b>oneDNN - D.B.s - f32 - CPU (ms)</b>		4.83086
	Standard Deviation	0.5%
<b>oneDNN - D.B.s - f32 - CPU (ms)</b>		1.74706
	Standard Deviation	1%
<b>oneDNN - C.B.S.A - u8s8f32 - CPU (ms)</b>		5.90734
	Standard Deviation	0%
<b>oneDNN - D.B.s - u8s8f32 - CPU (ms)</b>		0.794620
	Standard Deviation	0.6%
<b>oneDNN - D.B.s - u8s8f32 - CPU (ms)</b>		1.05488
	Standard Deviation	1.3%
<b>oneDNN - R.N.N.T - f32 - CPU (ms)</b>		1203
	Standard Deviation	5.6%
<b>oneDNN - R.N.N.I - f32 - CPU (ms)</b>		672.839
	Standard Deviation	0%
<b>oneDNN - R.N.N.T - u8s8f32 - CPU (ms)</b>		1229
	Standard Deviation	10.4%
<b>oneDNN - C.B.S.A - bf16bf16bf16 - CPU (ms)</b>		5.33252
	Standard Deviation	0.8%
<b>oneDNN - D.B.s - bf16bf16bf16 - CPU (ms)</b>		7.67628
	Standard Deviation	0.3%
<b>oneDNN - D.B.s - bf16bf16bf16 - CPU (ms)</b>		6.92756
	Standard Deviation	0.5%
<b>oneDNN - R.N.N.I - u8s8f32 - CPU (ms)</b>		692.653
	Standard Deviation	7.8%
<b>oneDNN - M.M.B.S.T - f32 - CPU (ms)</b>		0.456274
	Standard Deviation	6.5%
<b>oneDNN - R.N.N.T - bf16bf16bf16 - CPU (ms)</b>		1159
	Standard Deviation	1.9%
<b>oneDNN - R.N.N.I - bf16bf16bf16 - CPU (ms)</b>		670.587
	Standard Deviation	0.6%

<b>oneDNN - M.M.B.S.T - u8s8f32 - CPU (ms)</b>	0.449881
Standard Deviation	1.8%
<b>oneDNN - M.M.B.S.T - bf16bf16bf16 - CPU (ms)</b>	1.28199
Standard Deviation	0.8%
<b>AOBench - 2048 x 2048 - Total Time (sec)</b>	39.891
Standard Deviation	0.2%
<b>Timed Eigen Compilation - Time To Compile (sec)</b>	97.623
Standard Deviation	0.1%
<b>Timed Erlang/OTP Compilation - Time To Compile (sec)</b>	134.258
Standard Deviation	0.7%
<b>Timed Wasmer Compilation - Time To Compile (sec)</b>	84.717
Standard Deviation	1.4%
<b>FFmpeg - H.2.H.T.N.D (sec)</b>	7.499
Standard Deviation	0.7%
<b>m-queens - Time To Solve (sec)</b>	41.707
Standard Deviation	0.2%
<b>N-Queens - Elapsed Time (sec)</b>	6.684
Standard Deviation	0.2%
<b>Radiance Benchmark - Serial (sec)</b>	816.329
<b>Radiance Benchmark - SMP Parallel (sec)</b>	249.175
<b>ASKAP - tConvolve MT - Gridding (Million Grid Points/sec)</b>	2911
Standard Deviation	0.6%
<b>ASKAP - tConvolve MT - Degridding (Million Grid Points/sec)</b>	4381
Standard Deviation	6.3%
<b>ASKAP - tConvolve MPI - Degridding (Mpix/sec)</b>	6318
Standard Deviation	0.7%
<b>ASKAP - tConvolve MPI - Gridding (Mpix/sec)</b>	7779
Standard Deviation	1.2%
<b>ASKAP - tConvolve OpenMP - Gridding (Million Grid Points/sec)</b>	4001
Standard Deviation	14.3%
<b>ASKAP - tConvolve OpenMP - Degridding (Million Grid Points/sec)</b>	5841
Standard Deviation	2%
<b>ASKAP - H.C.O (Iterations/sec)</b>	317.279
Standard Deviation	5.3%
<b>Intel MPI Benchmarks - IMB-P2P PingPong (Msg/sec)</b>	21527432
Standard Deviation	0.7%
<b>Intel MPI Benchmarks - IMB-MPI1 Exchange (Mbytes/sec)</b>	3207
Standard Deviation	0.9%
<b>Intel MPI Benchmarks - IMB-MPI1 Exchange (usec)</b>	850.66
Standard Deviation	0.2%
<b>Intel MPI Benchmarks - IMB-MPI1 PingPong (Mbytes/sec)</b>	3499
Standard Deviation	0.8%
<b>Intel MPI Benchmarks - IMB-MPI1 Sendrecv (Mbytes/sec)</b>	2505
Standard Deviation	1%
<b>Intel MPI Benchmarks - IMB-MPI1 Sendrecv (usec)</b>	389.77
Standard Deviation	0.2%
<b>GROMACS - MPI CPU - water_GMX50_bare (Ns/Day)</b>	3.449
Standard Deviation	0.9%
<b>MariaDB - 1 (Queries/sec)</b>	1137
Standard Deviation	2%
<b>MariaDB - 4 (Queries/sec)</b>	526
Standard Deviation	14.4%
<b>MariaDB - 8 (Queries/sec)</b>	555

	Standard Deviation	15.8%
<b>MariaDB - 16 (Queries/sec)</b>	586	
	Standard Deviation	15.3%
<b>MariaDB - 32 (Queries/sec)</b>	554	
	Standard Deviation	7.3%
<b>MariaDB - 64 (Queries/sec)</b>	405	
	Standard Deviation	9.1%
<b>MariaDB - 128 (Queries/sec)</b>	363	
	Standard Deviation	1.9%
<b>MariaDB - 256 (Queries/sec)</b>	294	
	Standard Deviation	5.1%
<b>MariaDB - 512 (Queries/sec)</b>	314	
	Standard Deviation	1.3%
<b>Sysbench - RAM / Memory (MiB/sec)</b>	6797	
	Standard Deviation	2%
<b>Sysbench - CPU (Events/sec)</b>	37729	
	Standard Deviation	0.2%
<b>OpenVINO - F.D.O.F - CPU (FPS)</b>	9.47	
	Standard Deviation	0.3%
<b>OpenVINO - F.D.O.F - CPU (ms)</b>	1032	
	Standard Deviation	0%
<b>OpenVINO - F.D.O.F - CPU (FPS)</b>	9.40	
	Standard Deviation	0.3%
<b>OpenVINO - F.D.O.F - CPU (ms)</b>	1035	
	Standard Deviation	0%
<b>OpenVINO - P.D.O.F - CPU (FPS)</b>	5.15	
	Standard Deviation	0.2%
<b>OpenVINO - P.D.O.F - CPU (ms)</b>	1887	
	Standard Deviation	0.2%
<b>OpenVINO - P.D.O.F - CPU (FPS)</b>	5.14	
	Standard Deviation	0.3%
<b>OpenVINO - P.D.O.F - CPU (ms)</b>	1893	
	Standard Deviation	0.3%
<b>OpenVINO - A.G.R.R.O.F - CPU (FPS)</b>	19183	
	Standard Deviation	0%
<b>OpenVINO - A.G.R.R.O.F - CPU (ms)</b>	0.48	
	Standard Deviation	0%
<b>OpenVINO - A.G.R.R.O.F - CPU (FPS)</b>	19204	
	Standard Deviation	0.2%
<b>OpenVINO - A.G.R.R.O.F - CPU (ms)</b>	0.48	
	Standard Deviation	0%
<b>Apache Cassandra - Reads (Op/s)</b>	52667	
	Standard Deviation	58.9%
<b>Blender - BMW27 - CPU-Only (sec)</b>	74.01	
	Standard Deviation	0.5%
<b>Blender - Classroom - CPU-Only (sec)</b>	211.22	
	Standard Deviation	0.2%
<b>Blender - Fishy Cat - CPU-Only (sec)</b>	113.41	
	Standard Deviation	0.5%
<b>Blender - Barbershop - CPU-Only (sec)</b>	323.46	
	Standard Deviation	0.7%
<b>Blender - Pabellon Barcelona - CPU-Only (sec)</b>	255.32	
	Standard Deviation	0.8%

**Xsbench (Lookups/s)** 3657488

Standard Deviation 3.1%

**NeatBench - All (FPS)** 24.6

Standard Deviation 3.1%

**NeatBench - CPU (FPS)** 24.5

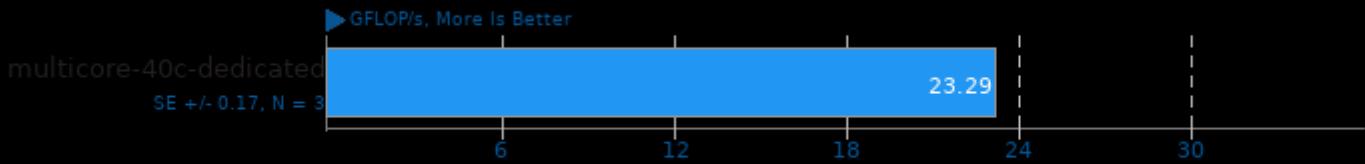
Standard Deviation 2.5%

**Appleseed - Emily (sec)** 248.067525

**Appleseed - Disney Material (sec)** 99.586118

**Appleseed - Material Tester (sec)** 245.172393

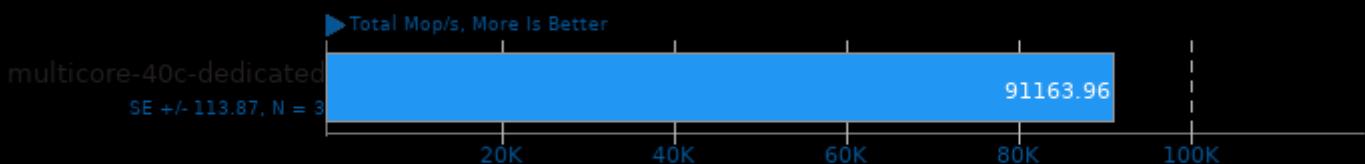
## High Performance Conjugate Gradient 3.1



1. (CXX) g++ options: -O3 -ffast-math -ftree-vectorize -pthread -lmpi\_cxx -lmpi

## NAS Parallel Benchmarks 3.4

Test / Class: BT.C

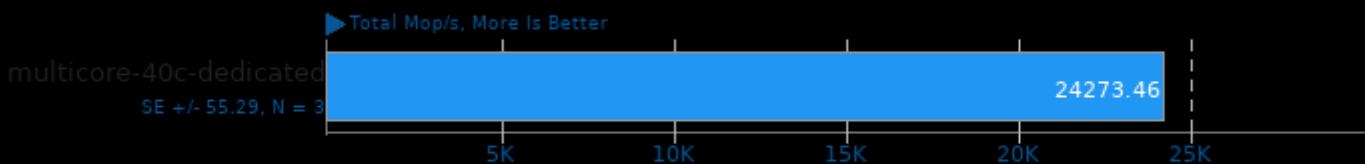


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi

2. Open MPI 4.0.3

## NAS Parallel Benchmarks 3.4

Test / Class: CG.C

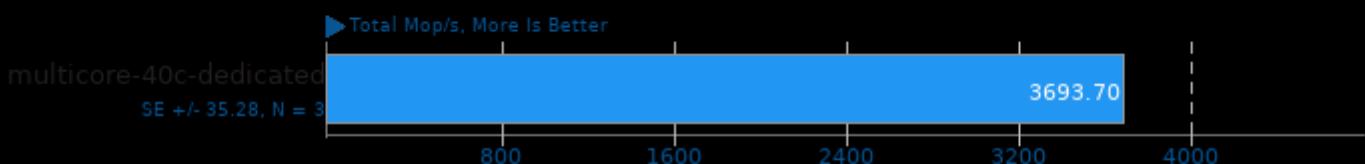


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi

2. Open MPI 4.0.3

## NAS Parallel Benchmarks 3.4

Test / Class: EP.C

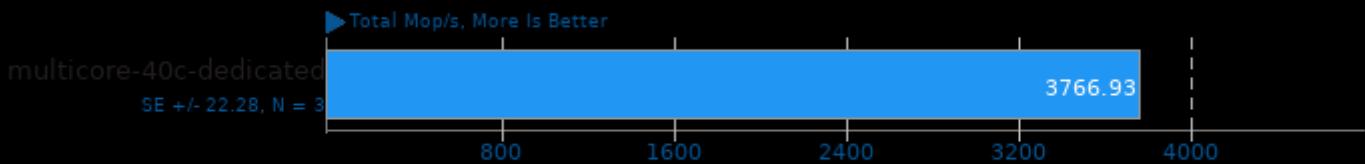


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi

2. Open MPI 4.0.3

## NAS Parallel Benchmarks 3.4

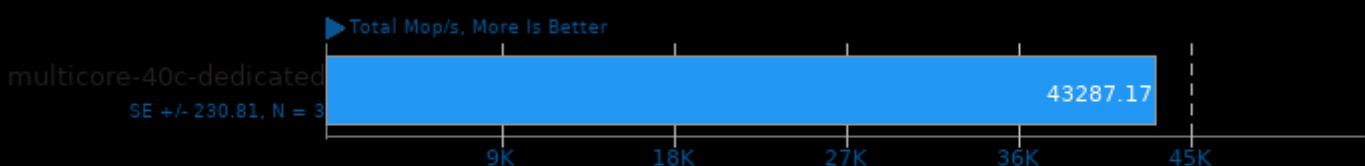
Test / Class: EP.D



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi  
2. Open MPI 4.0.3

## NAS Parallel Benchmarks 3.4

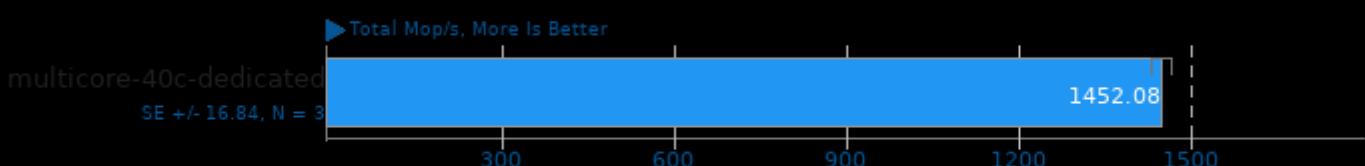
Test / Class: FT.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi  
2. Open MPI 4.0.3

## NAS Parallel Benchmarks 3.4

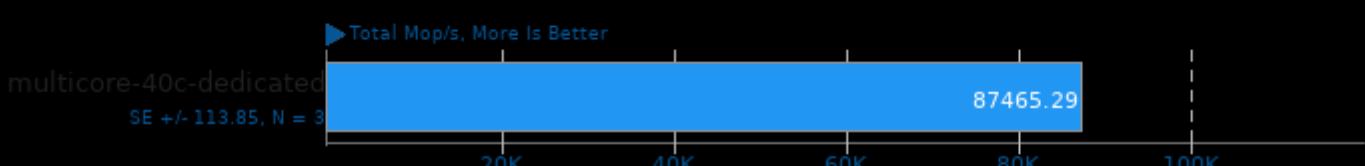
Test / Class: IS.D



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi  
2. Open MPI 4.0.3

## NAS Parallel Benchmarks 3.4

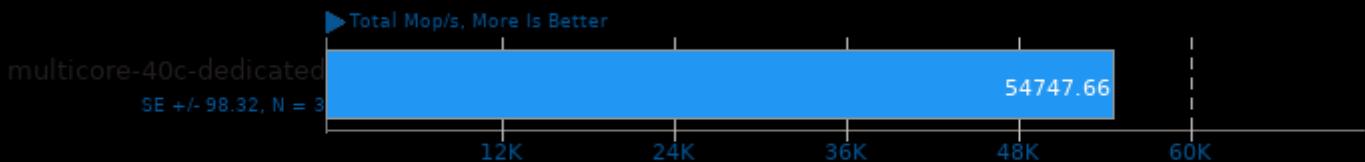
Test / Class: LU.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi  
2. Open MPI 4.0.3

## NAS Parallel Benchmarks 3.4

Test / Class: MG.C

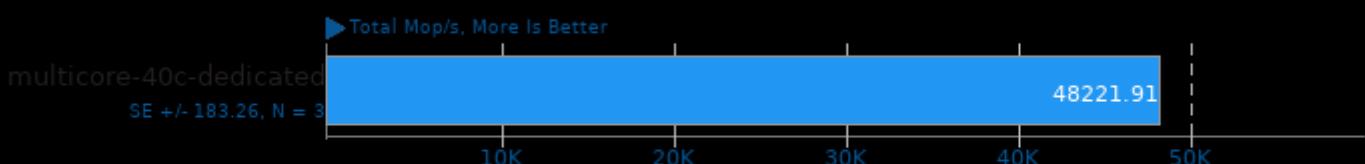


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi

2. Open MPI 4.0.3

## NAS Parallel Benchmarks 3.4

Test / Class: SP.B

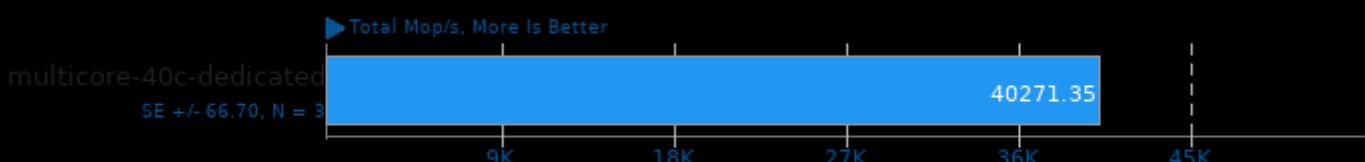


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi

2. Open MPI 4.0.3

## NAS Parallel Benchmarks 3.4

Test / Class: SP.C

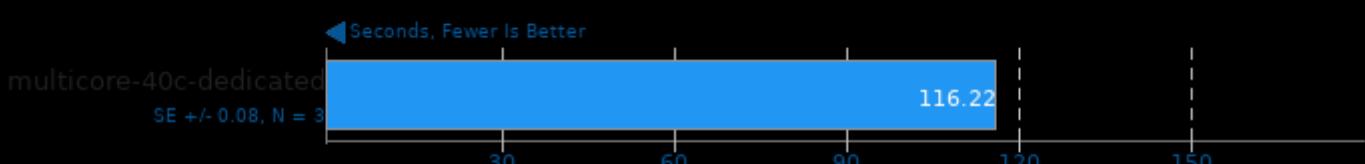


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi

2. Open MPI 4.0.3

## Rodinia 3.1

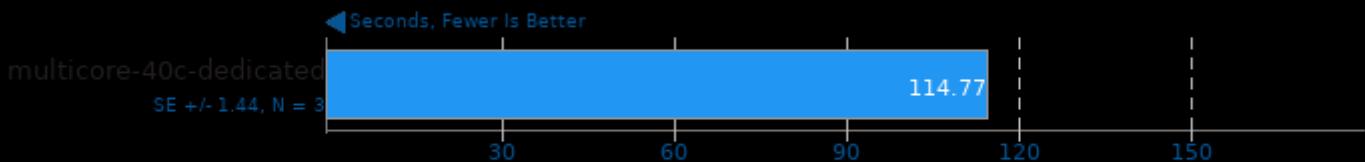
Test: OpenMP LavaMD



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

## Rodinia 3.1

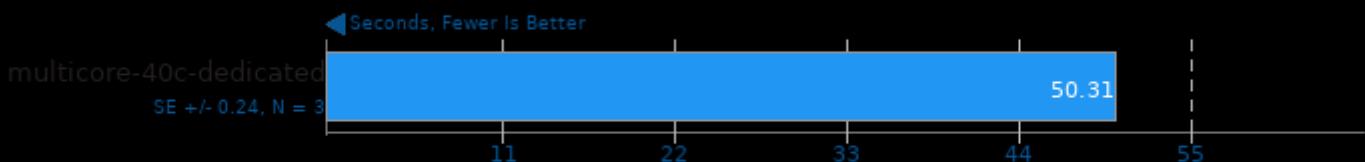
Test: OpenMP HotSpot3D



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

## Rodinia 3.1

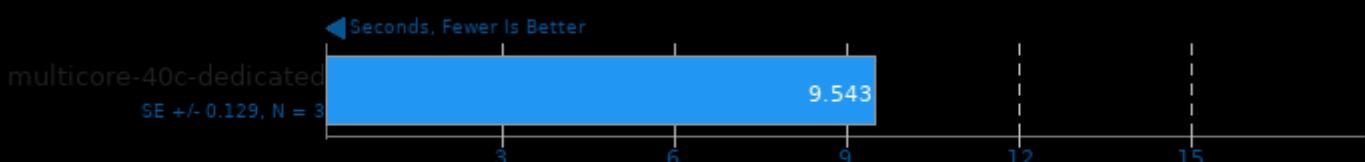
Test: OpenMP Leukocyte



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

## Rodinia 3.1

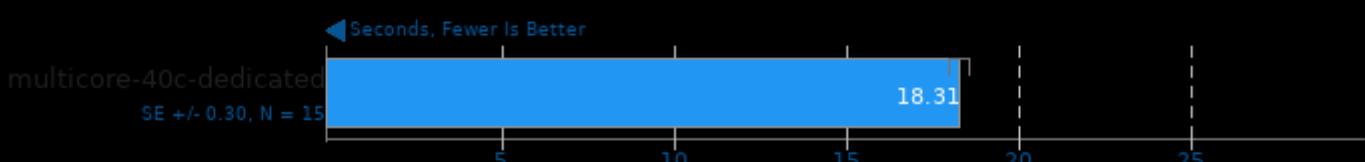
Test: OpenMP CFD Solver



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

## Rodinia 3.1

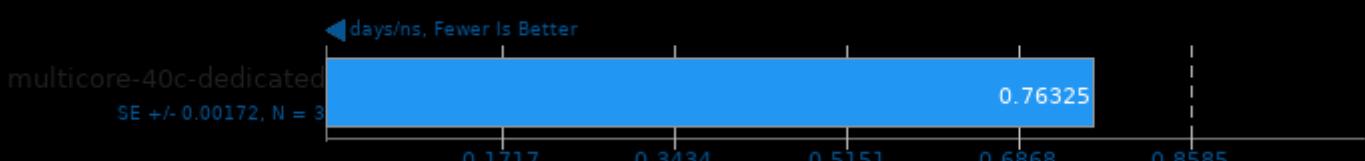
Test: OpenMP Streamcluster



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

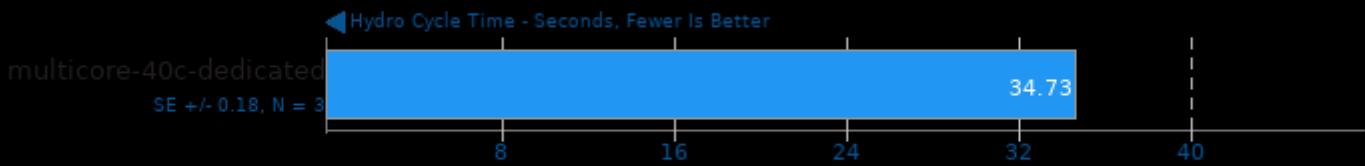
## NAMD 2.14

ATPase Simulation - 327,506 Atoms



## Pennant 1.0.1

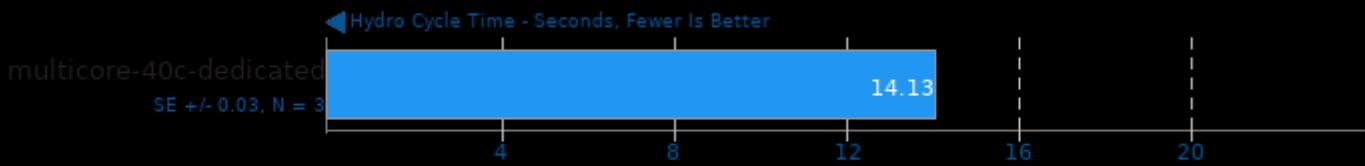
Test: sedovbig



1. (CXX) g++ options: -fopenmp -pthread -lmpi\_cxx -lmpi

## Pennant 1.0.1

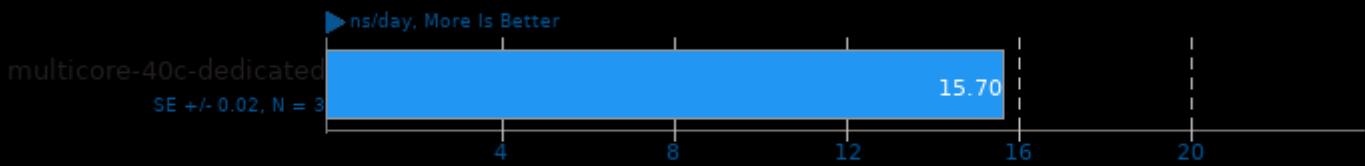
Test: leblancbig



1. (CXX) g++ options: -fopenmp -pthread -lmpi\_cxx -lmpi

## LAMMPS Molecular Dynamics Simulator 29Oct2020

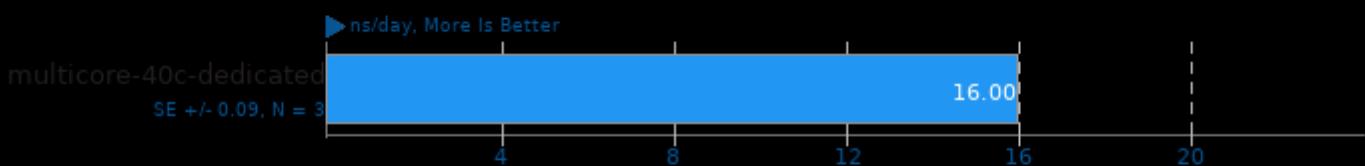
Model: 20k Atoms



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

## LAMMPS Molecular Dynamics Simulator 29Oct2020

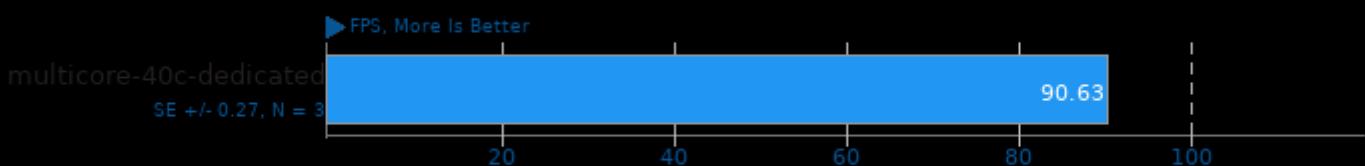
Model: Rhodopsin Protein



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

## libgav1 0.16.3

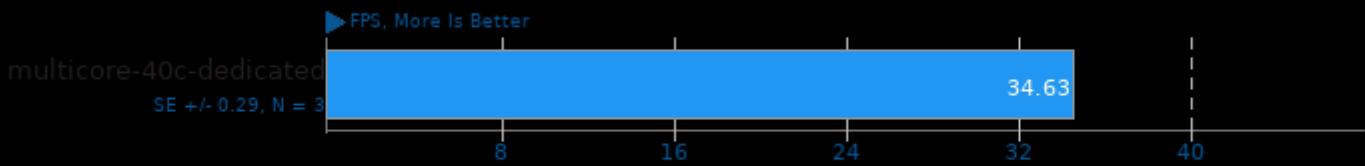
Video Input: Chimera 1080p



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

**libgavl 0.16.3**

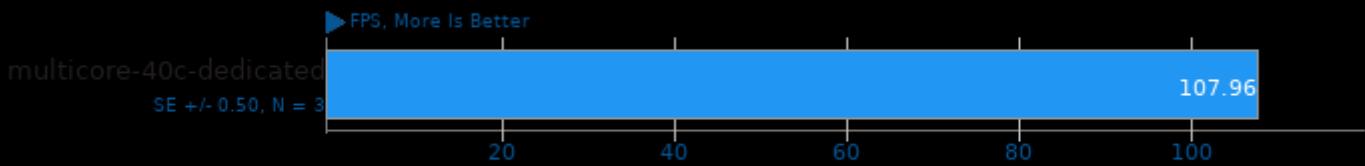
Video Input: Summer Nature 4K



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

**libgavl 0.16.3**

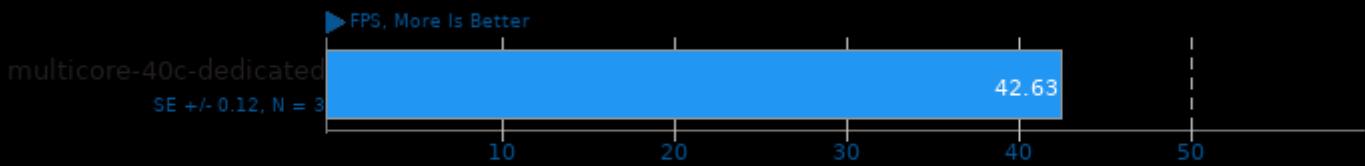
Video Input: Summer Nature 1080p



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

**libgavl 0.16.3**

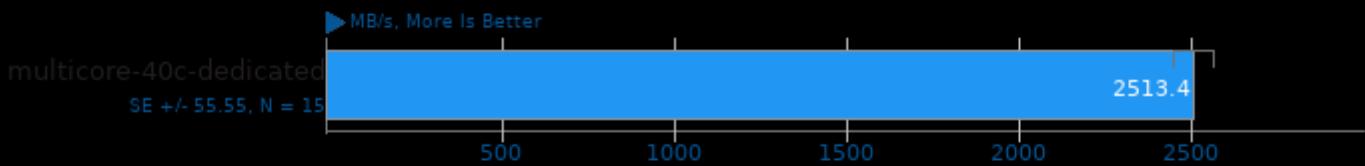
Video Input: Chimera 1080p 10-bit



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

**Zstd Compression 1.5.0**

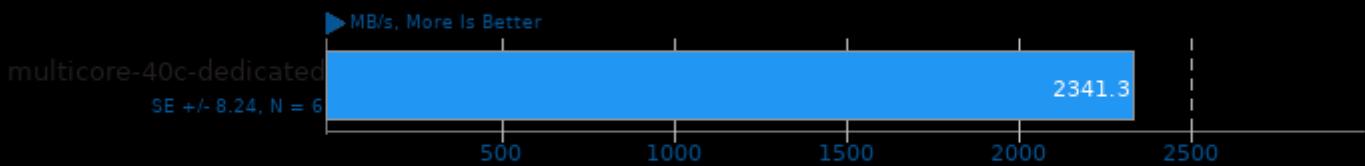
Compression Level: 3 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lzma

**Zstd Compression 1.5.0**

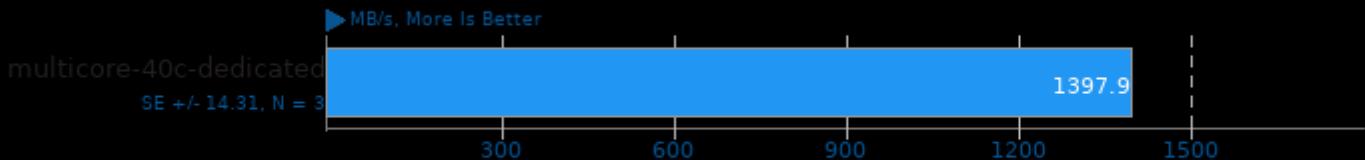
Compression Level: 3 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lzma

## Zstd Compression 1.5.0

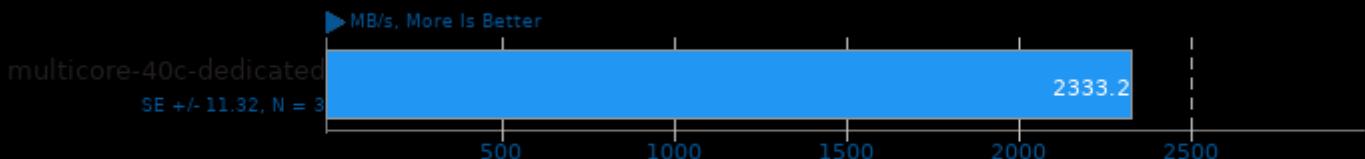
Compression Level: 8 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

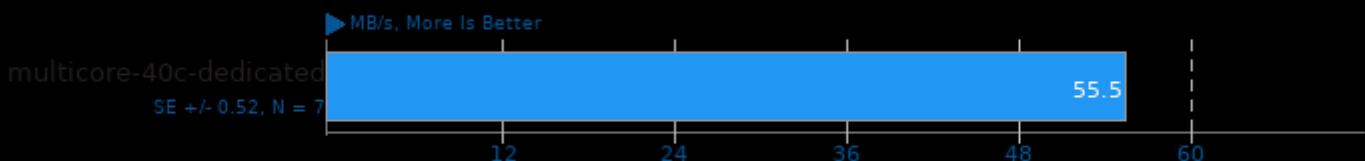
Compression Level: 8 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

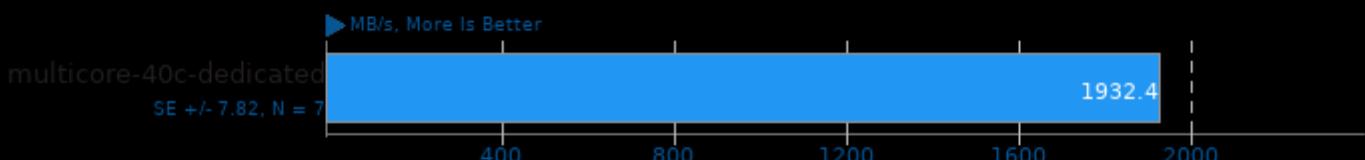
Compression Level: 19 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

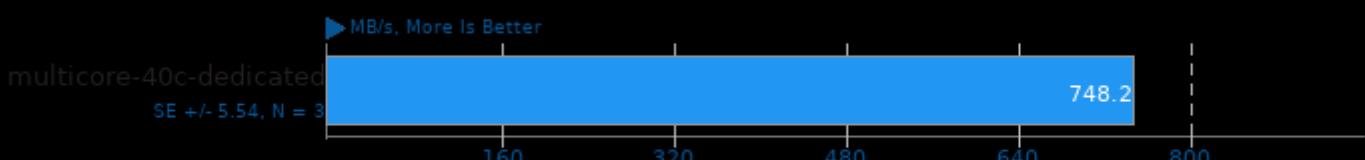
Compression Level: 19 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

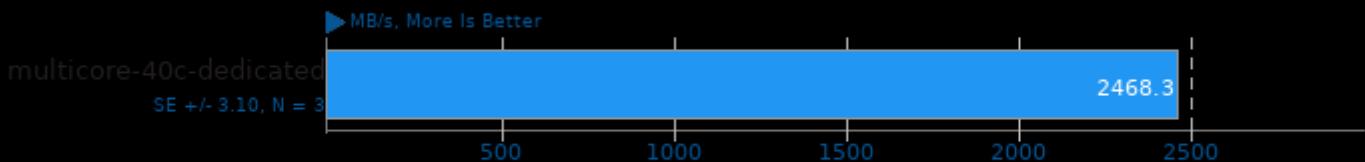
Compression Level: 3, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

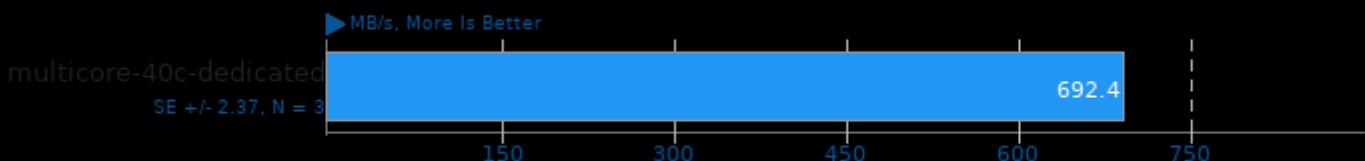
Compression Level: 3, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

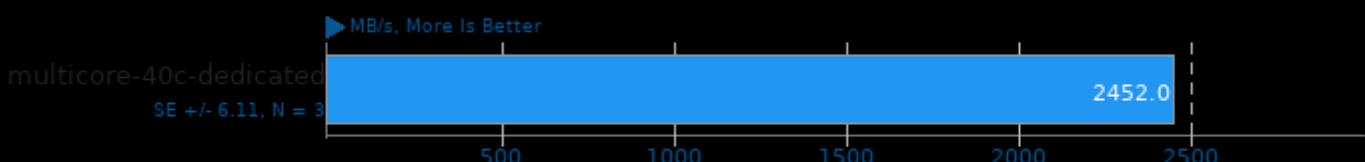
Compression Level: 8, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

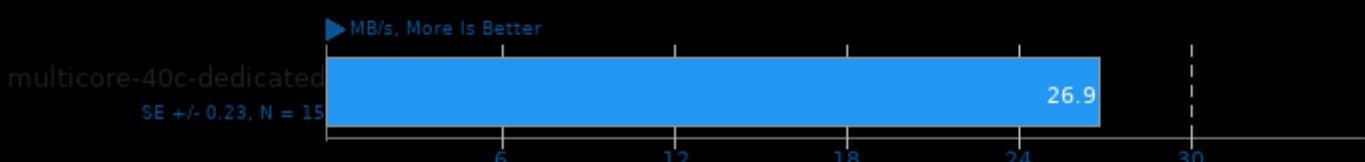
Compression Level: 8, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

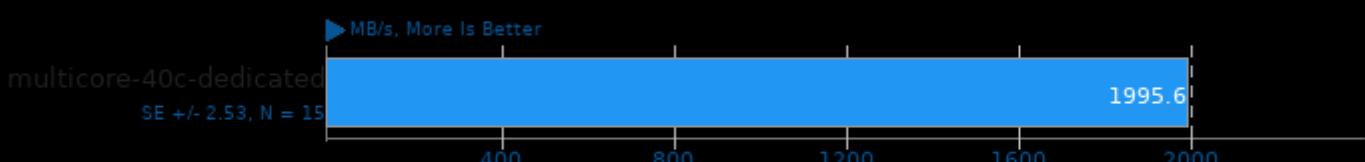
Compression Level: 19, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

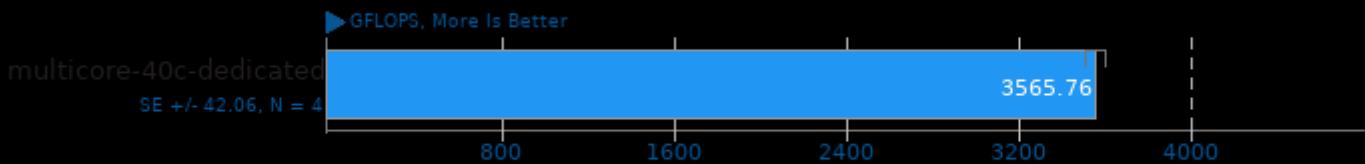
Compression Level: 19, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## ArrayFire 3.7

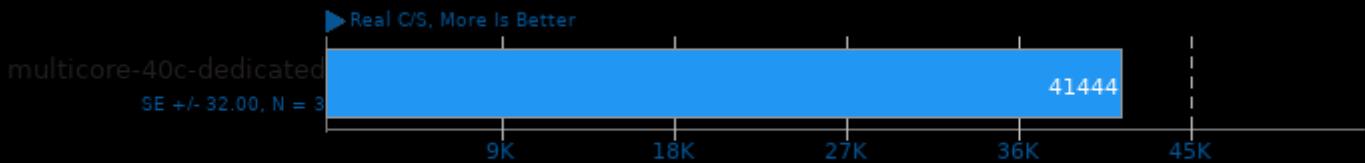
Test: BLAS CPU



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

## John The Ripper 1.9.0-jumbo-1

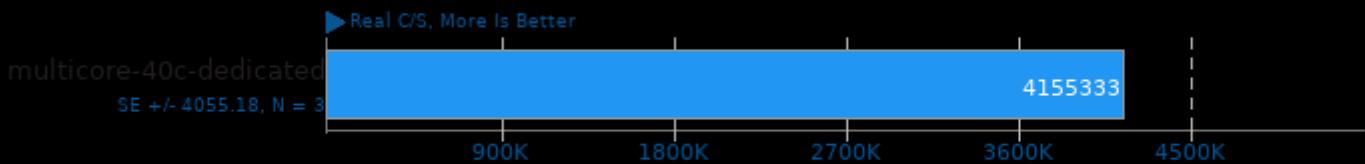
Test: Blowfish



1. (CC) gcc options: -m64 -lssl -lcrypto -fopenmp -lgmp -pthread -lm -lz -ldl -lcrypt -lbz2

## John The Ripper 1.9.0-jumbo-1

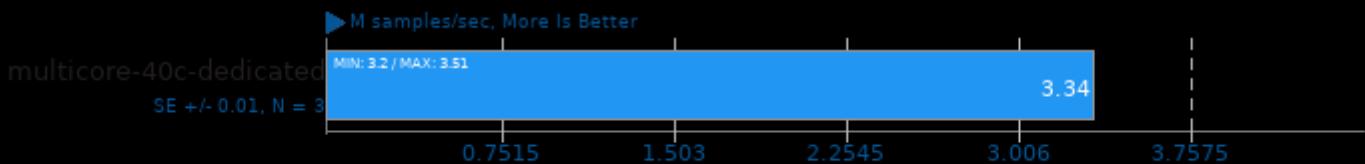
Test: MD5



1. (CC) gcc options: -m64 -lssl -lcrypto -fopenmp -lgmp -pthread -lm -lz -ldl -lcrypt -lbz2

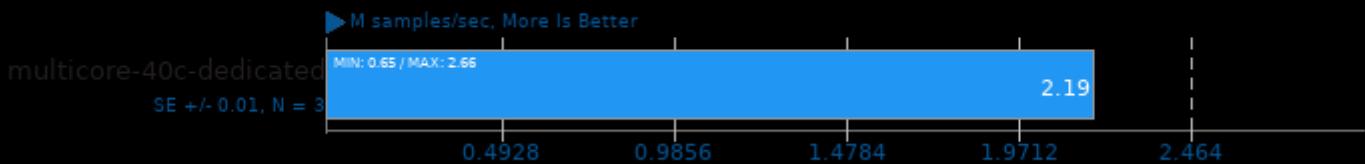
## LuxCoreRender 2.5

Scene: DLSC - Acceleration: CPU



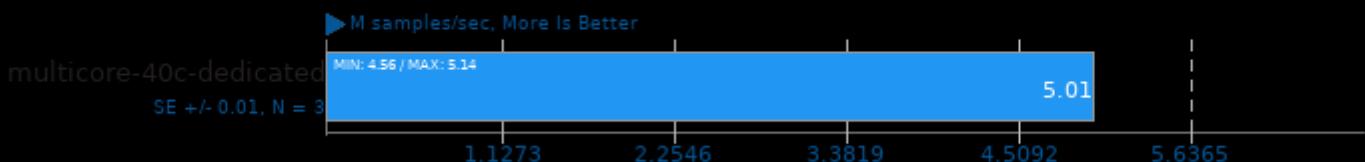
## LuxCoreRender 2.5

Scene: Danish Mood - Acceleration: CPU



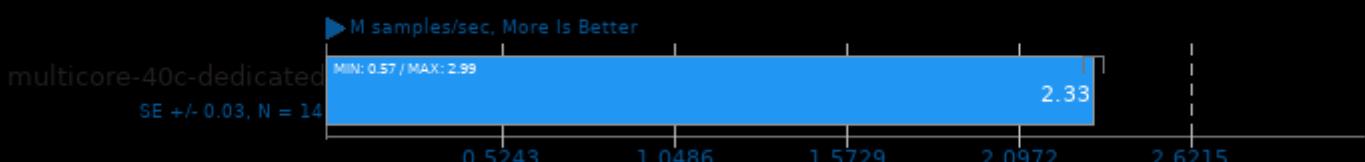
## LuxCoreRender 2.5

Scene: Orange Juice - Acceleration: CPU



## LuxCoreRender 2.5

Scene: LuxCore Benchmark - Acceleration: CPU



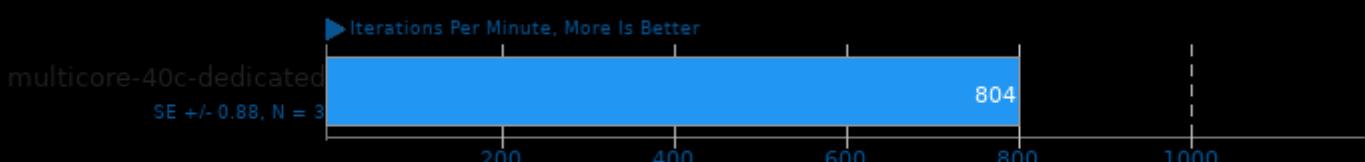
## LuxCoreRender 2.5

Scene: Rainbow Colors and Prism - Acceleration: CPU



## GraphicsMagick 1.3.33

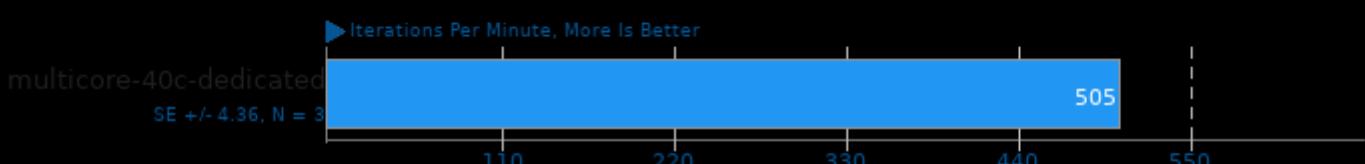
Operation: Swirl



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

## GraphicsMagick 1.3.33

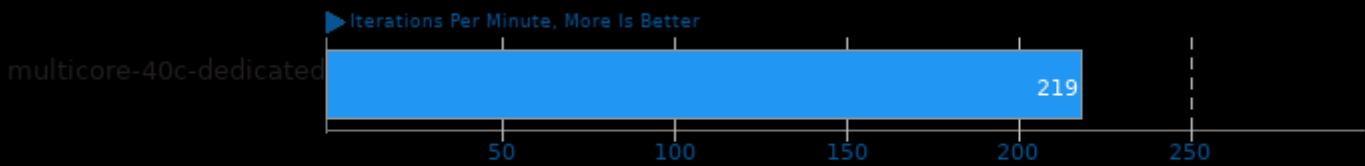
Operation: Rotate



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

## GraphicsMagick 1.3.33

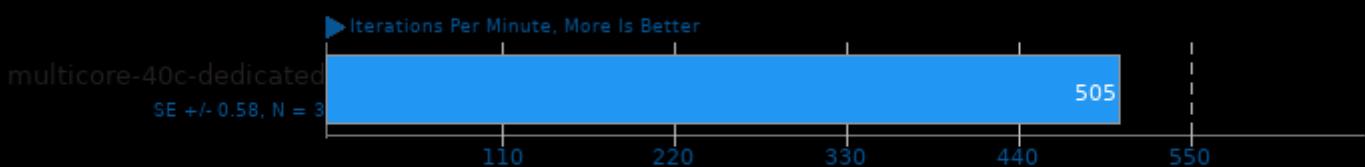
Operation: Sharpen



```
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -lwebp -lwebpmux -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
```

## GraphicsMagick 1.3.33

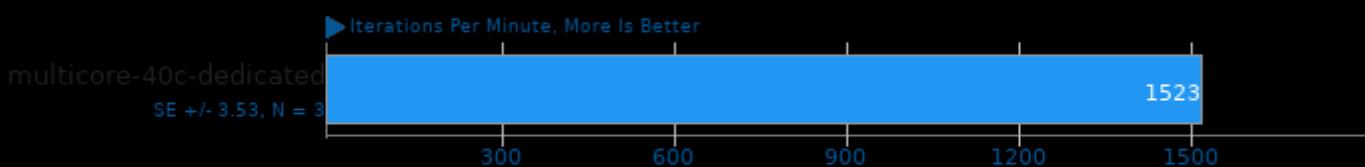
Operation: Enhanced



```
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -lwebp -lwebpmux -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
```

## GraphicsMagick 1.3.33

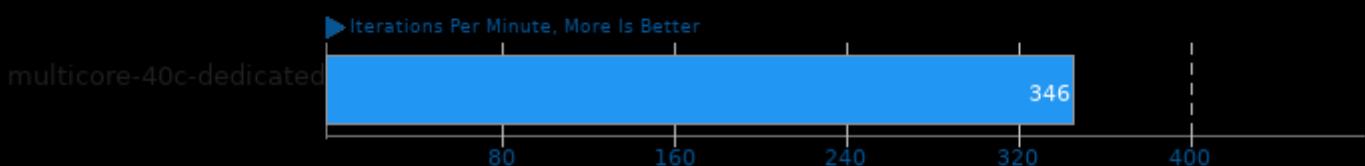
Operation: Resizing



```
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -lwebp -lwebpmux -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
```

## GraphicsMagick 1.3.33

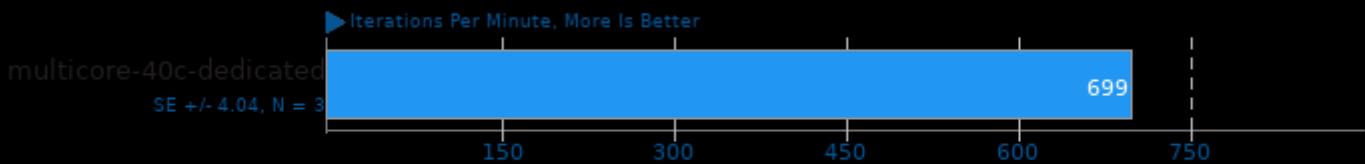
Operation: Noise-Gaussian



```
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -lwebp -lwebpmux -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
```

## GraphicsMagick 1.3.33

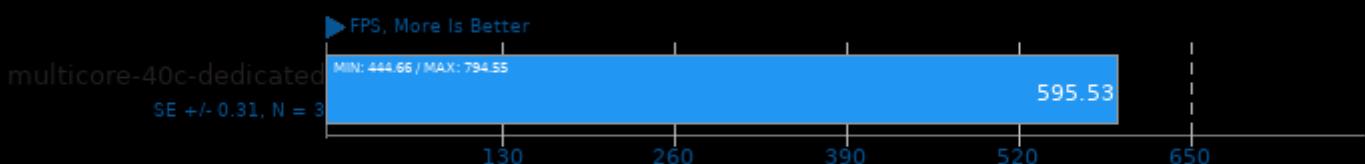
Operation: HWB Color Space



1. (CC) gcc options: -fopenmp -O2 -pthread -ljpeg -lwebp -lwebpmux -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lxml -lbz2 -lxml2 -lz -lm -lpthread

## dav1d 0.9.0

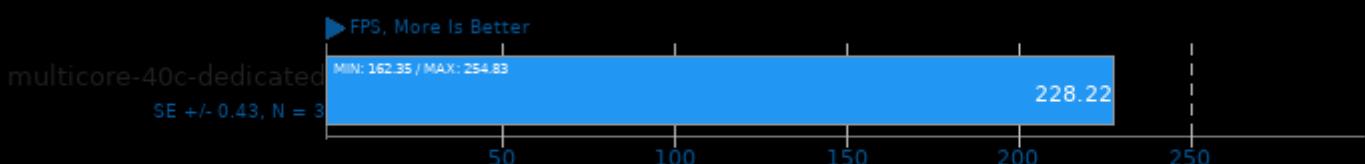
Video Input: Chimera 1080p



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

## dav1d 0.9.0

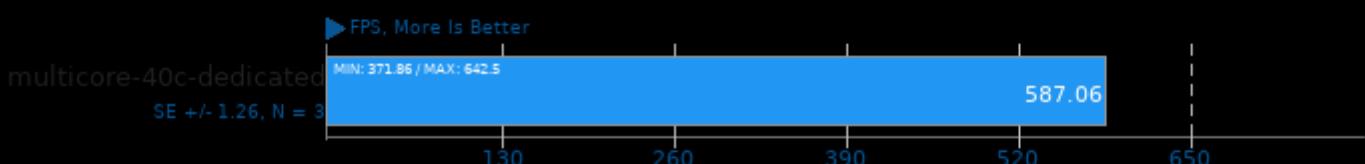
Video Input: Summer Nature 4K



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

## dav1d 0.9.0

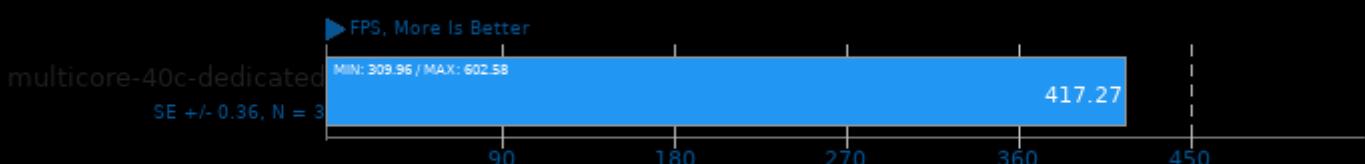
Video Input: Summer Nature 1080p



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

## dav1d 0.9.0

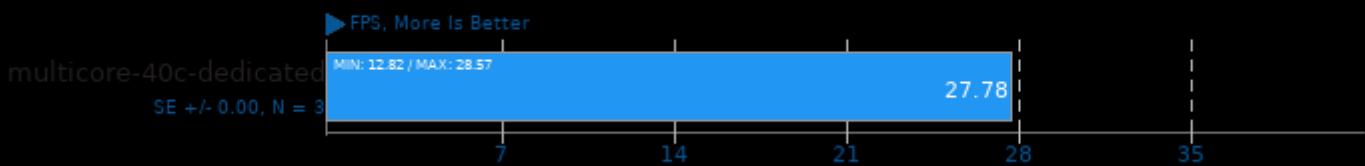
Video Input: Chimera 1080p 10-bit



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

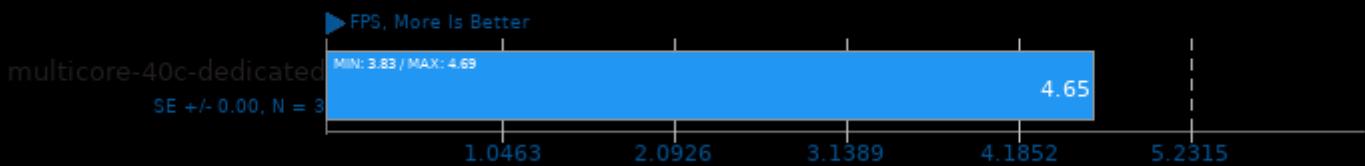
## OSPray 1.8.5

Demo: San Miguel - Renderer: SciVis



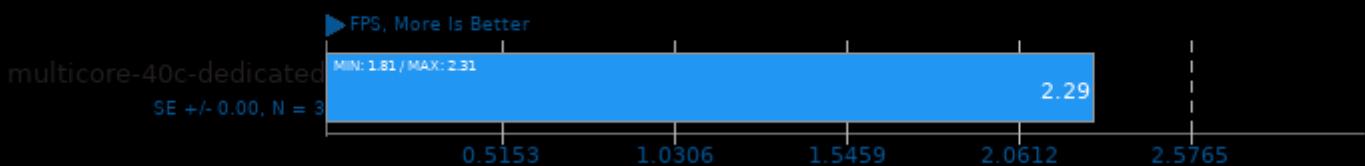
## OSPray 1.8.5

Demo: XFrog Forest - Renderer: SciVis



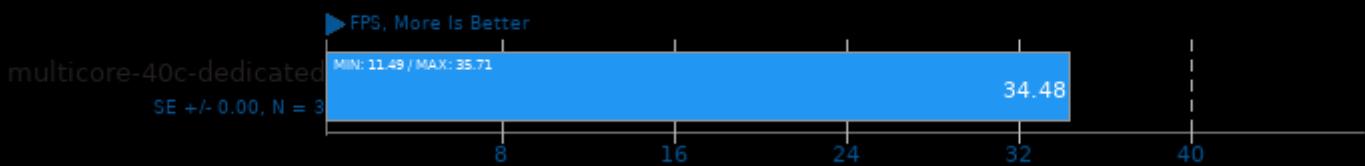
## OSPray 1.8.5

Demo: San Miguel - Renderer: Path Tracer



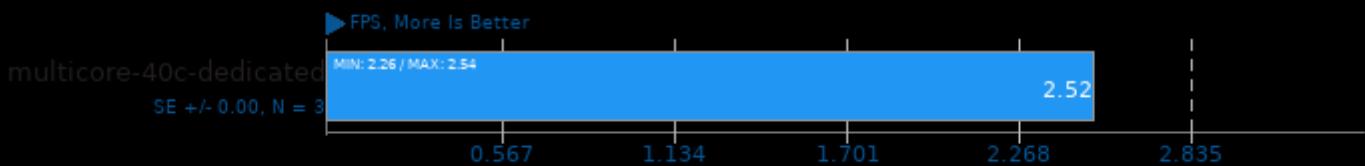
## OSPray 1.8.5

Demo: NASA Streamlines - Renderer: SciVis



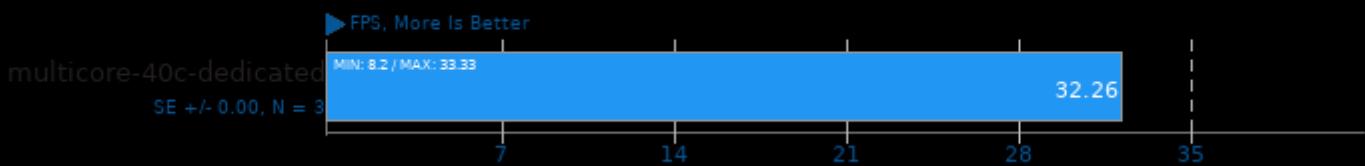
## OSPray 1.8.5

Demo: XFrog Forest - Renderer: Path Tracer



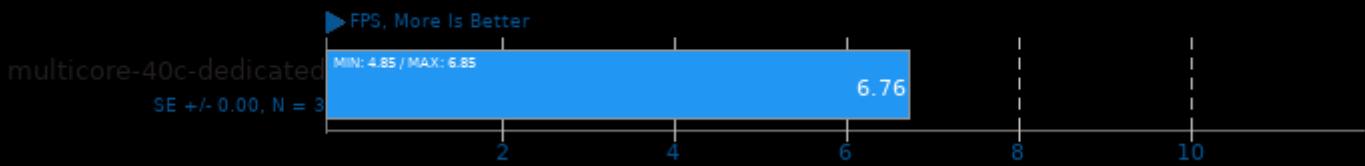
## OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: SciVis



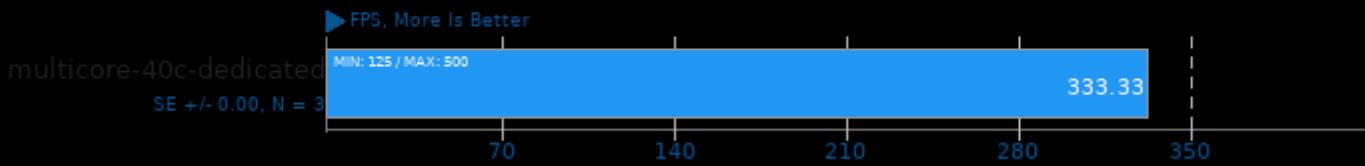
## OSPray 1.8.5

Demo: NASA Streamlines - Renderer: Path Tracer



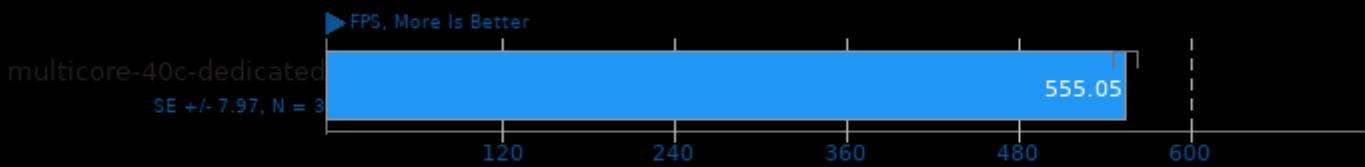
## OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: Path Tracer



## TTSIOD 3D Renderer 2.3b

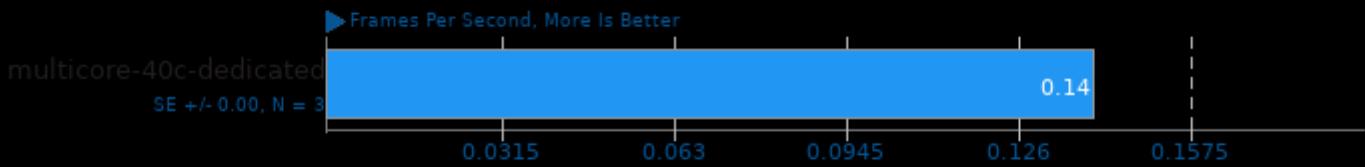
Phong Rendering With Soft-Shadow Mapping



1. (CXX) g++ options: -O3 -fomit-frame-pointer -ffast-math -mtune=native -fno -msse -mrecip -mfpmath=sse -msse2 -msse3 -fopenmp -fwhole-pr

## AOM AV1 3.1

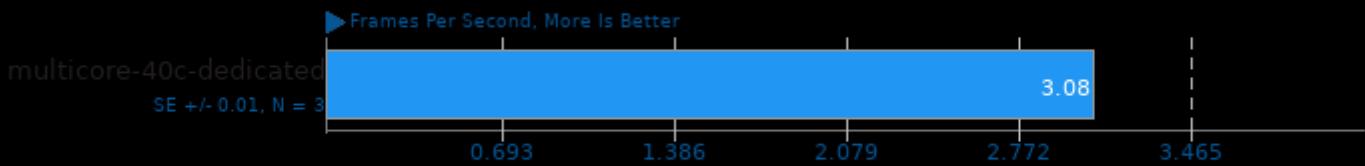
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 4K



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

## AOM AV1 3.1

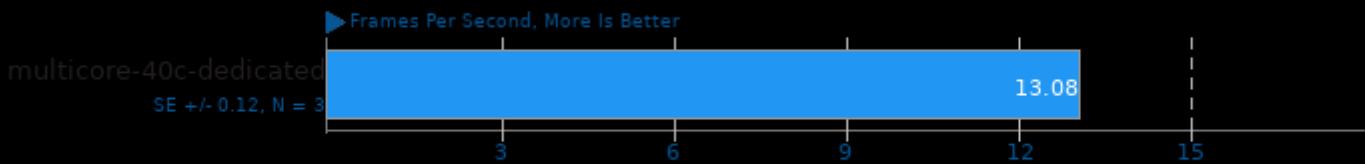
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K



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

## AOM AV1 3.1

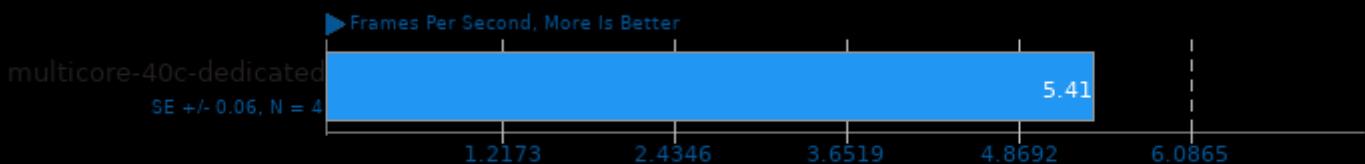
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K



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

## AOM AV1 3.1

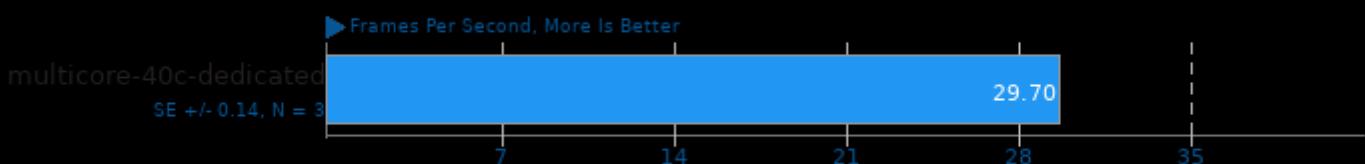
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 4K



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

## AOM AV1 3.1

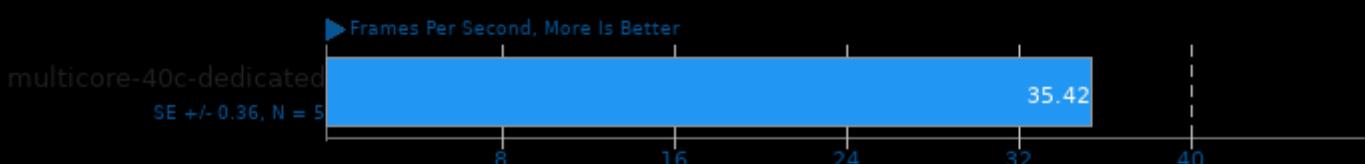
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 4K



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

## AOM AV1 3.1

Encoder Mode: Speed 9 Realtime - Input: Bosphorus 4K



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

## AOM AV1 3.1

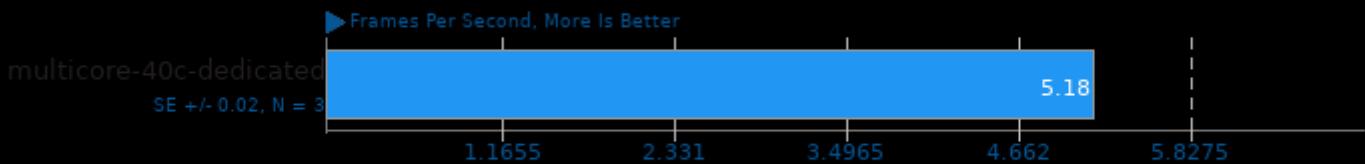
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 1080p



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

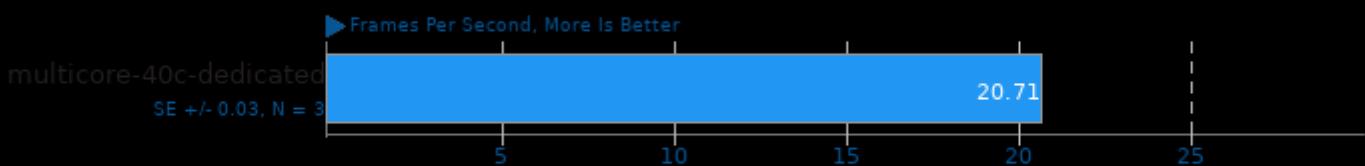
## AOM AV1 3.1

Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 1080p



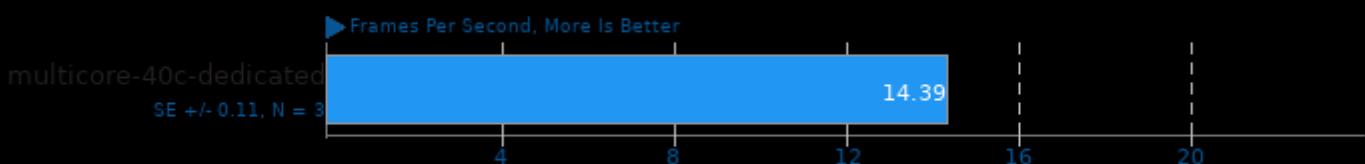
## AOM AV1 3.1

Encoder Mode: Speed 6 Realtime - Input: Bosphorus 1080p



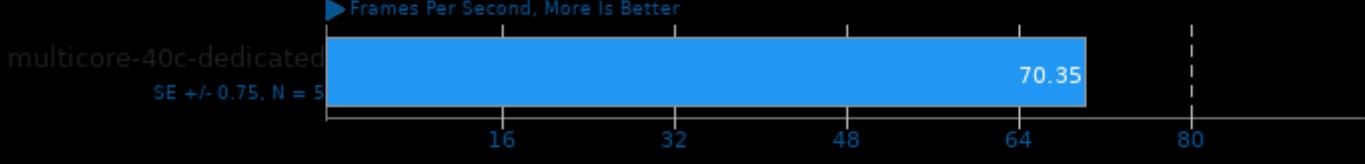
## AOM AV1 3.1

Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 1080p



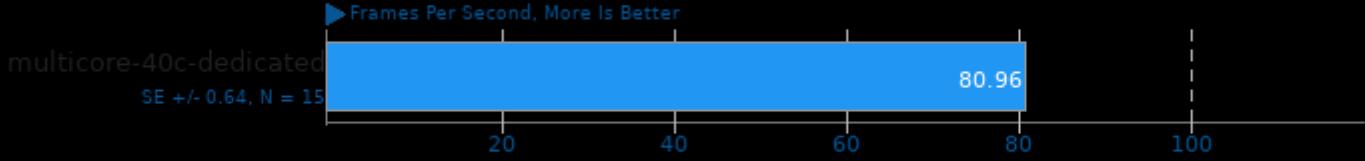
## AOM AV1 3.1

Encoder Mode: Speed 8 Realtime - Input: Bosphorus 1080p



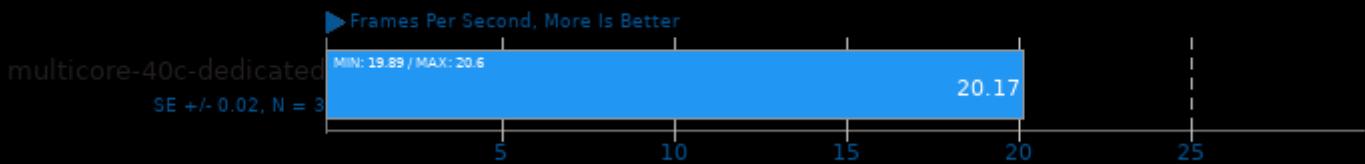
## AOM AV1 3.1

Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p



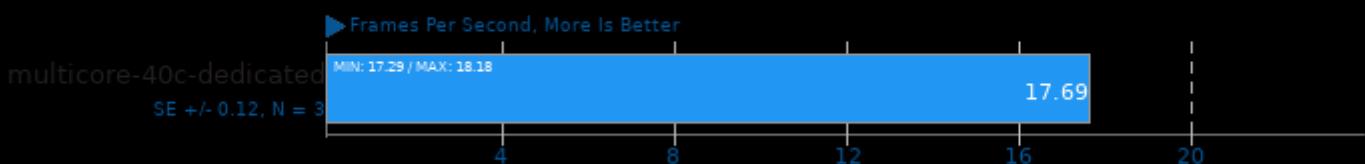
## Embree 3.13

Binary: Pathtracer - Model: Crown



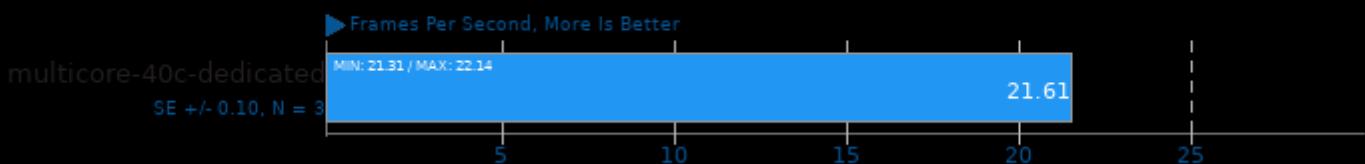
## Embree 3.13

Binary: Pathtracer ISPC - Model: Crown



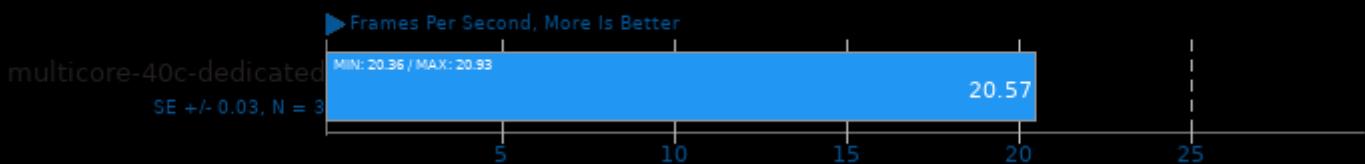
## Embree 3.13

Binary: Pathtracer - Model: Asian Dragon



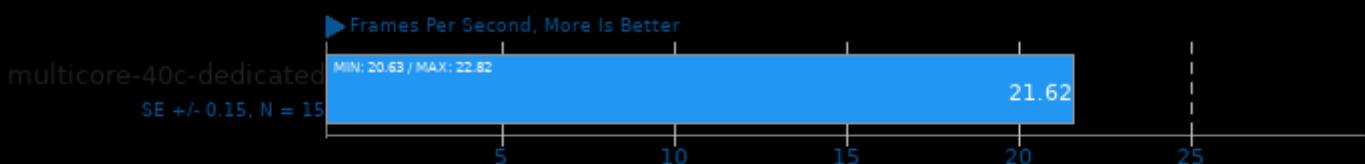
## Embree 3.13

Binary: Pathtracer - Model: Asian Dragon Obj



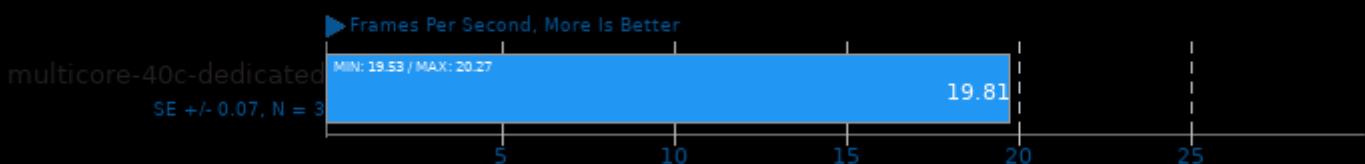
## Embree 3.13

Binary: Pathtracer ISPC - Model: Asian Dragon



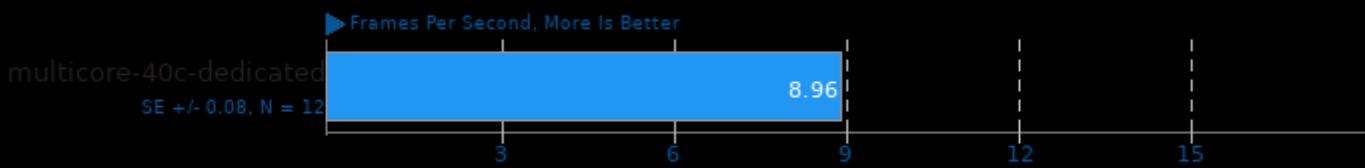
## Embree 3.13

Binary: Pathtracer ISPC - Model: Asian Dragon Obj



## Kvazaar 2.0

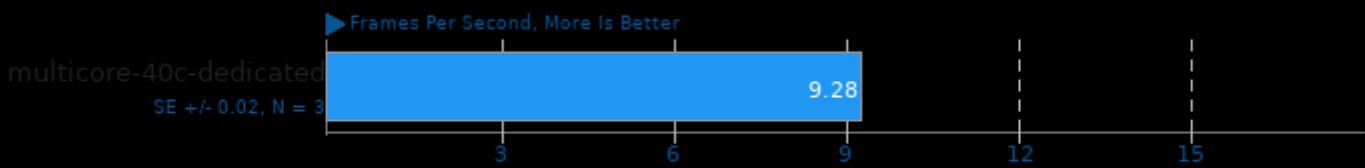
Video Input: Bosphorus 4K - Video Preset: Slow



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.0

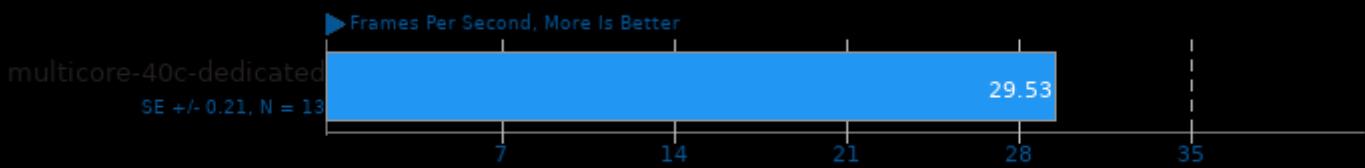
Video Input: Bosphorus 4K - Video Preset: Medium



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.0

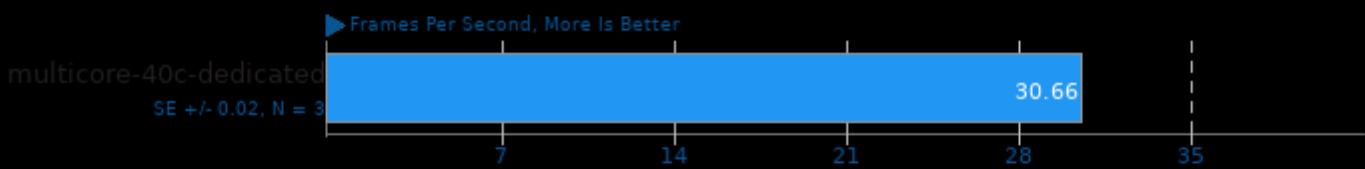
Video Input: Bosphorus 1080p - Video Preset: Slow



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.0

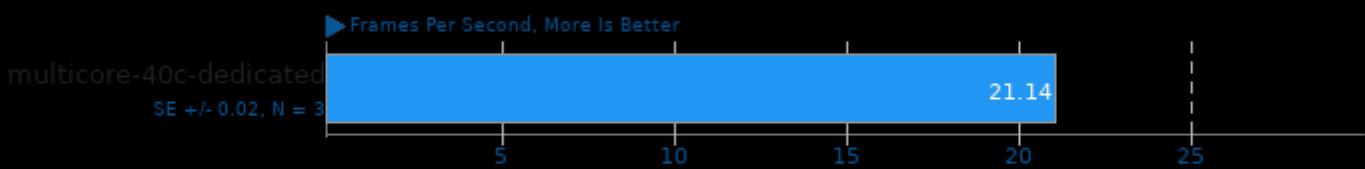
Video Input: Bosphorus 1080p - Video Preset: Medium



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.0

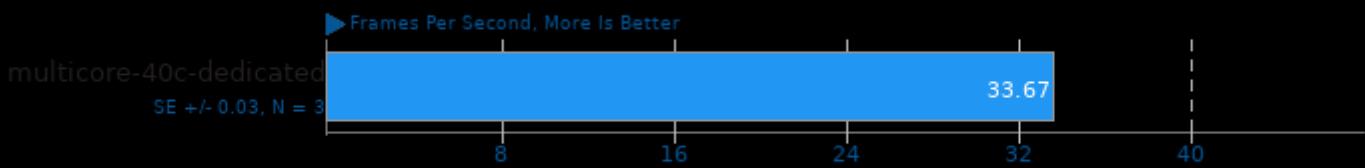
Video Input: Bosphorus 4K - Video Preset: Very Fast



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.0

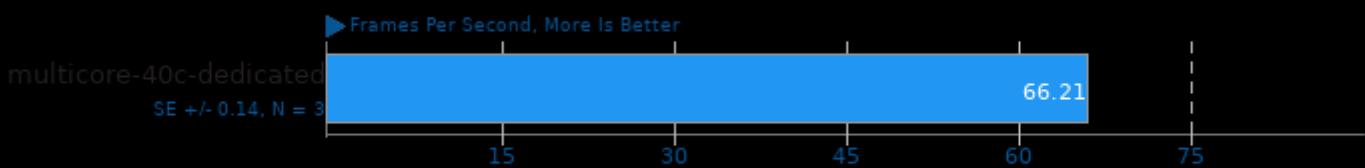
Video Input: Bosphorus 4K - Video Preset: Ultra Fast



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.0

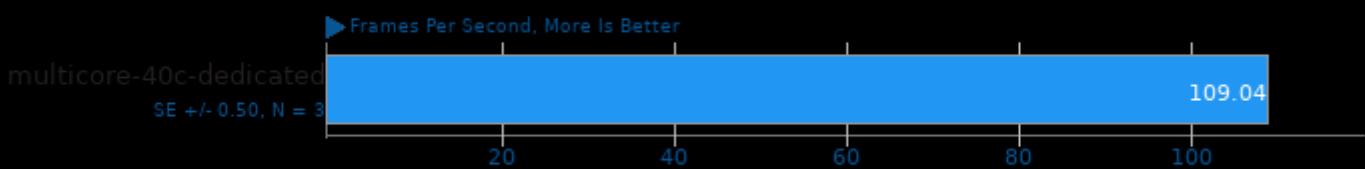
Video Input: Bosphorus 1080p - Video Preset: Very Fast



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.0

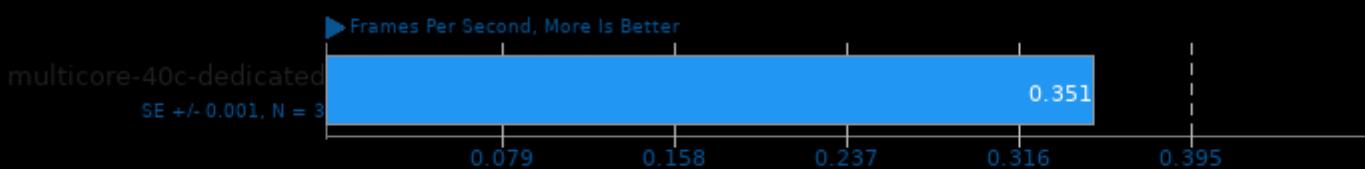
Video Input: Bosphorus 1080p - Video Preset: Ultra Fast



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

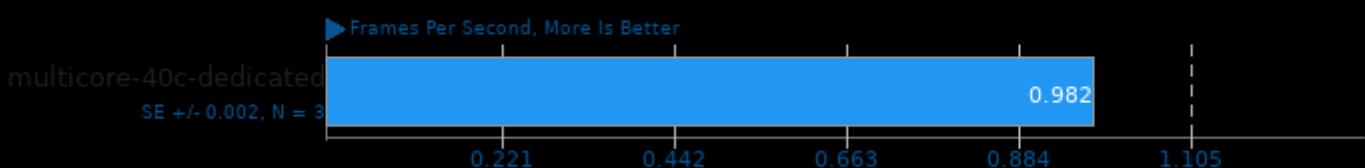
## rav1e 0.4

Speed: 1



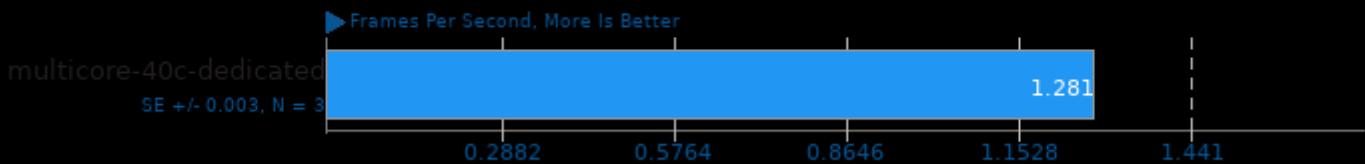
## rav1e 0.4

Speed: 5

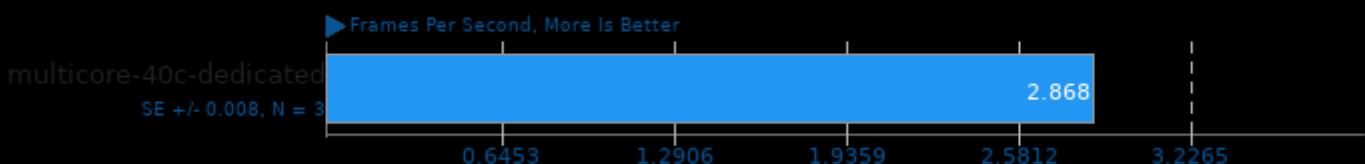


**rav1e 0.4**

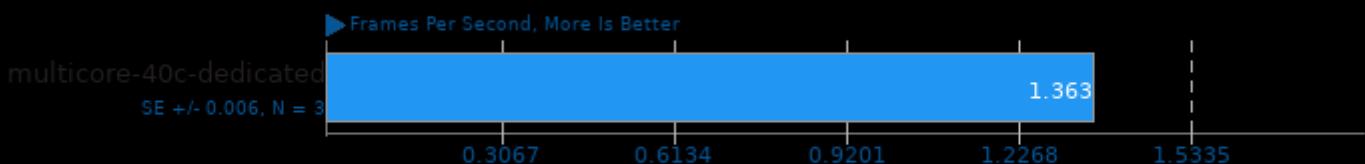
Speed: 6

**rav1e 0.4**

Speed: 10

**SVT-AV1 0.8.7**

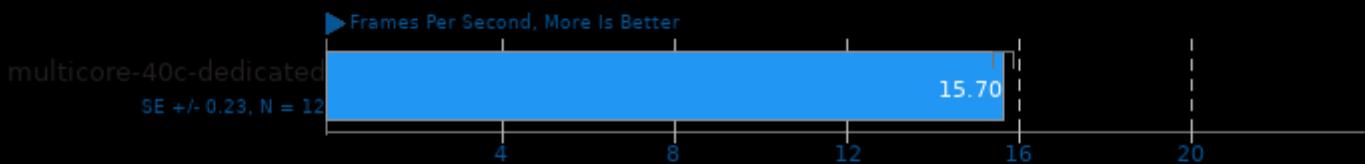
Encoder Mode: Preset 4 - Input: Bosphorus 4K



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

**SVT-AV1 0.8.7**

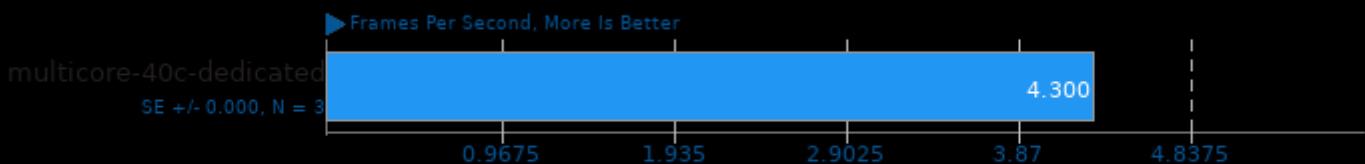
Encoder Mode: Preset 8 - Input: Bosphorus 4K



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

**SVT-AV1 0.8.7**

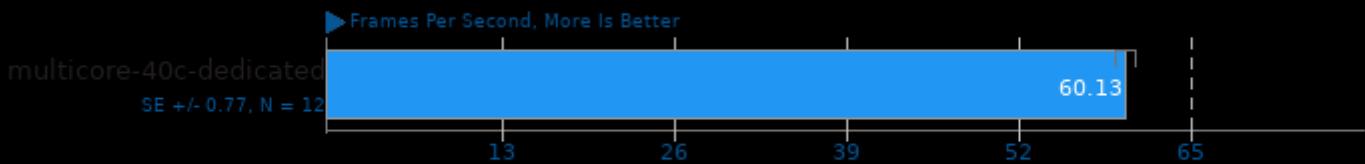
Encoder Mode: Preset 4 - Input: Bosphorus 1080p



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

## SVT-AV1 0.8.7

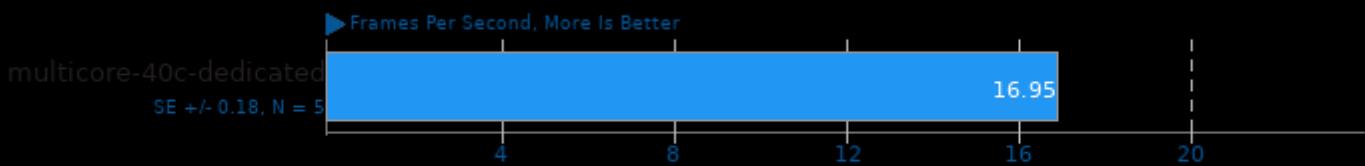
Encoder Mode: Preset 8 - Input: Bosphorus 1080p



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

## SVT-HEVC 1.5.0

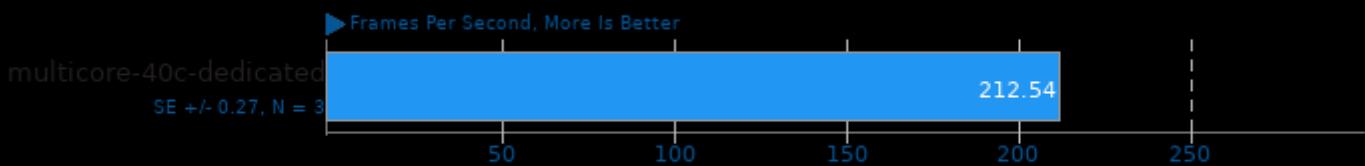
Tuning: 1 - Input: Bosphorus 1080p



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

## SVT-HEVC 1.5.0

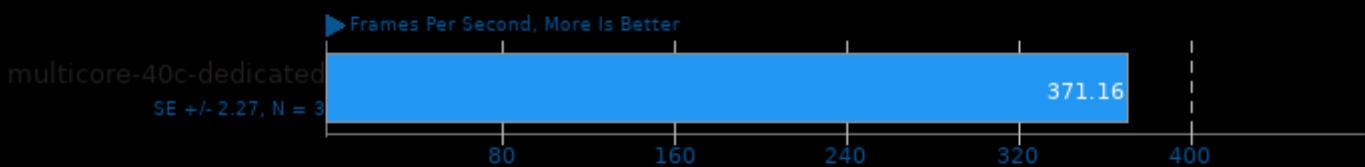
Tuning: 7 - Input: Bosphorus 1080p



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

## SVT-HEVC 1.5.0

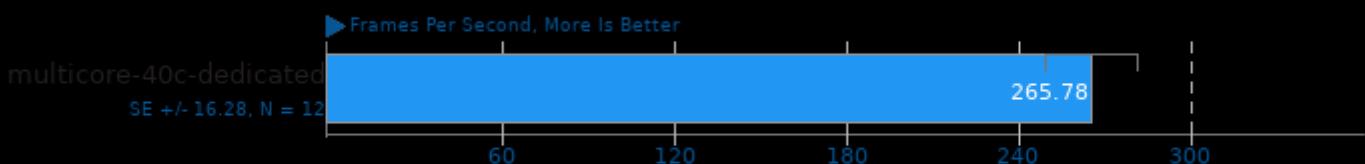
Tuning: 10 - Input: Bosphorus 1080p



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

## SVT-VP9 0.3

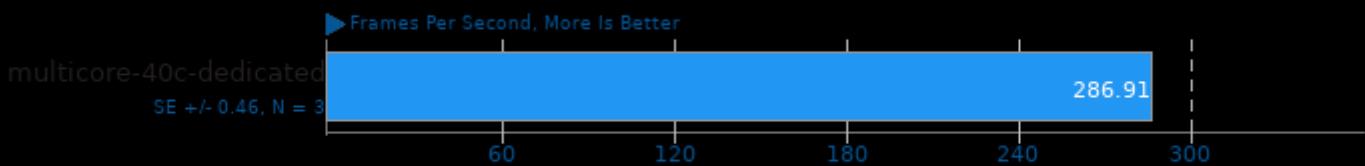
Tuning: VMAF Optimized - Input: Bosphorus 1080p



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

## SVT-VP9 0.3

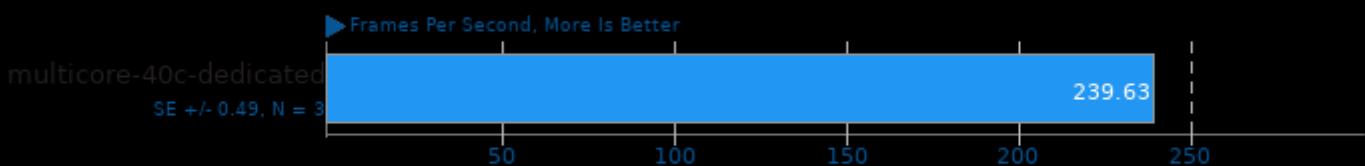
Tuning: PSNR/SSIM Optimized - Input: Bosphorus 1080p



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

## SVT-VP9 0.3

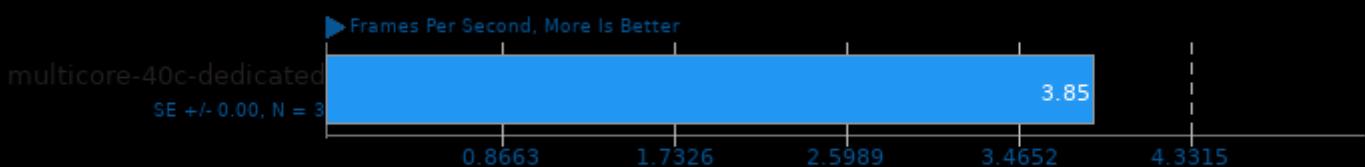
Tuning: Visual Quality Optimized - Input: Bosphorus 1080p



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

## VP9 libvpx Encoding 1.10.0

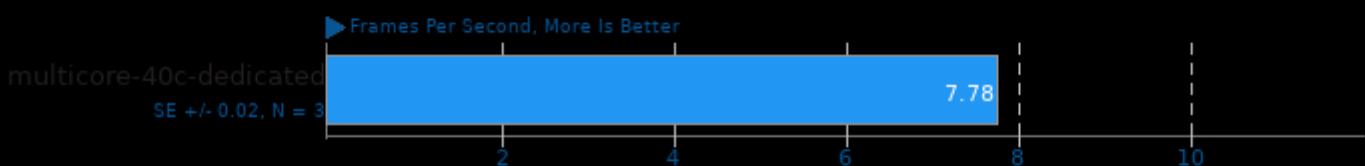
Speed: Speed 0 - Input: Bosphorus 4K



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

## VP9 libvpx Encoding 1.10.0

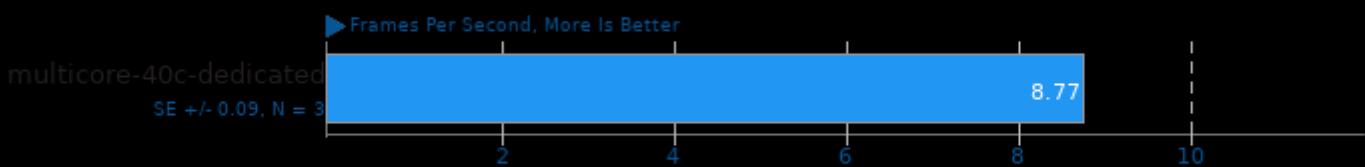
Speed: Speed 5 - Input: Bosphorus 4K



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

## VP9 libvpx Encoding 1.10.0

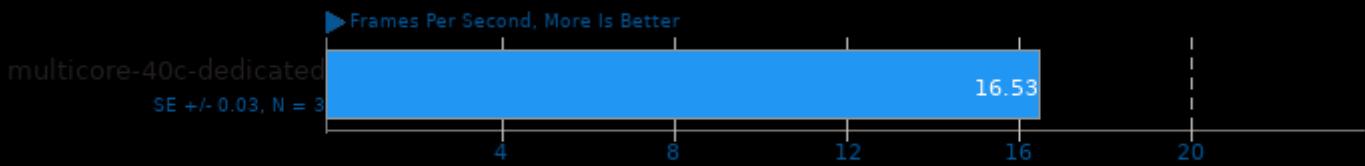
Speed: Speed 0 - Input: Bosphorus 1080p



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

## VP9 libvpx Encoding 1.10.0

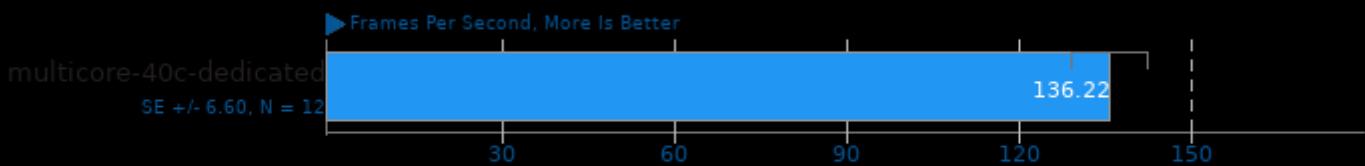
Speed: Speed 5 - Input: Bosphorus 1080p



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

## x264 2019-12-17

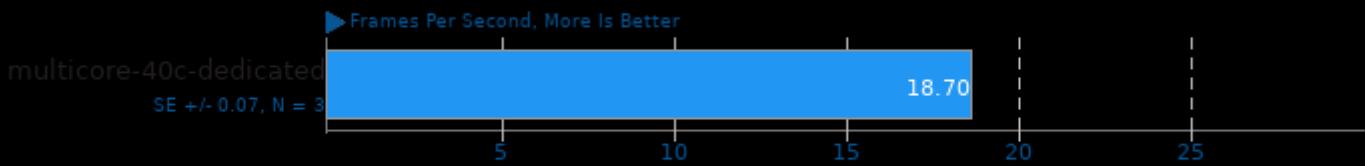
H.264 Video Encoding



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

## x265 3.4

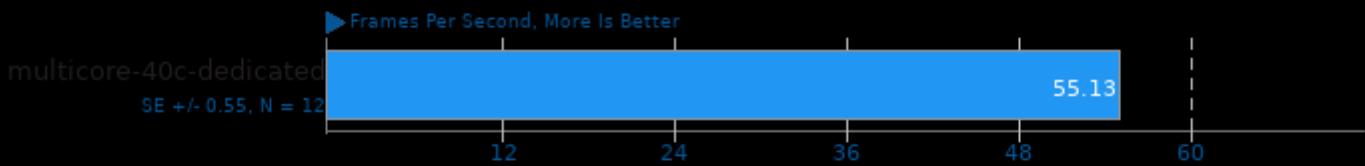
Video Input: Bosphorus 4K



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

## x265 3.4

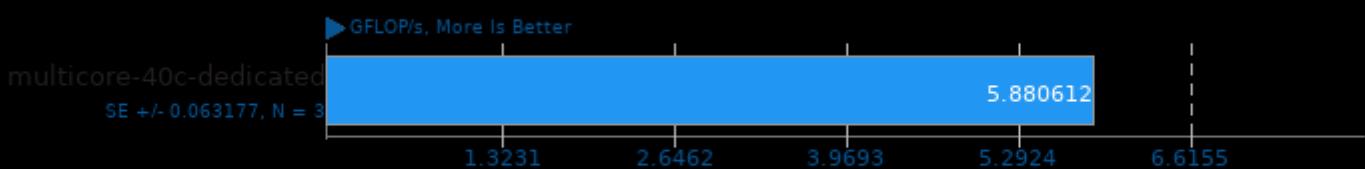
Video Input: Bosphorus 1080p



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

## ACES DGEMM 1.0

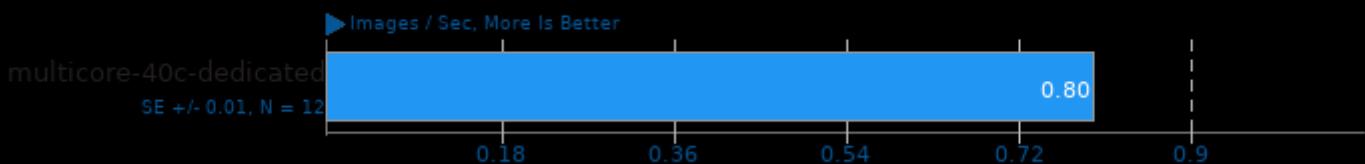
Sustained Floating-Point Rate



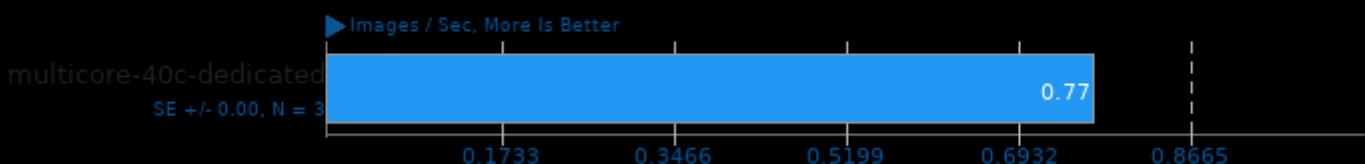
1. (CC) gcc options: -O3 -march=native -fopenmp

**Intel Open Image Denoise 1.4.0**

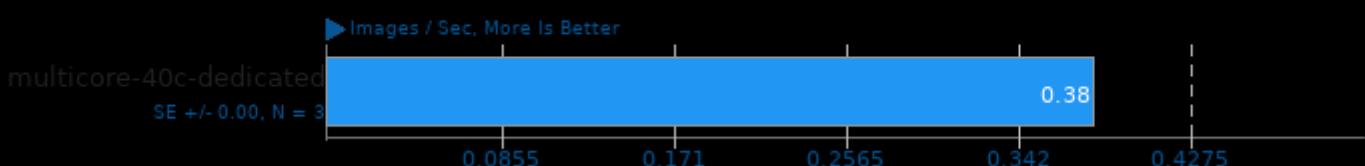
Run: RT.hdr\_alb\_nrm.3840x2160

**Intel Open Image Denoise 1.4.0**

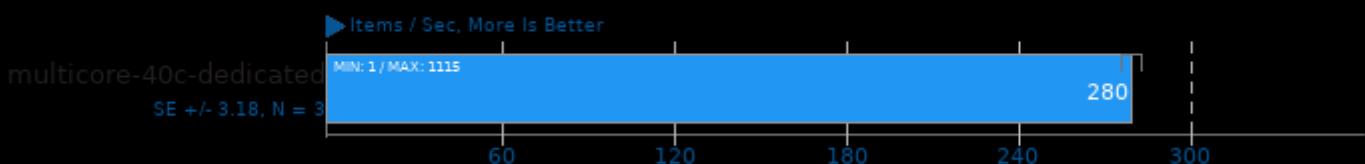
Run: RT.Idr\_alb\_nrm.3840x2160

**Intel Open Image Denoise 1.4.0**

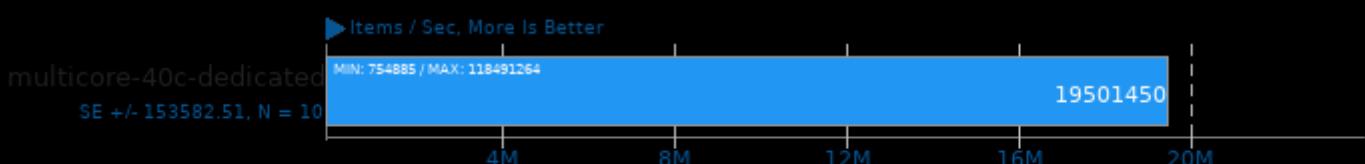
Run: RTLightmap.hdr.4096x4096

**OpenVKL 0.9**

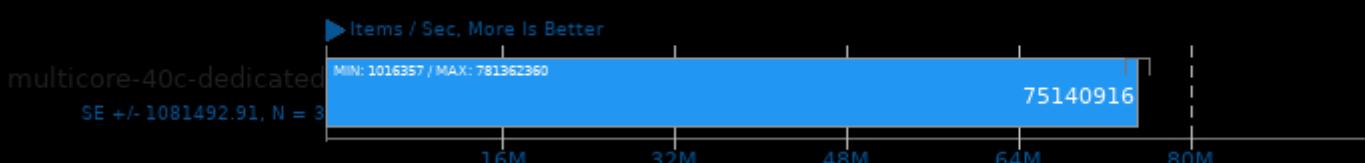
Benchmark: vklBenchmark

**OpenVKL 0.9**

Benchmark: vklBenchmarkVdbVolume

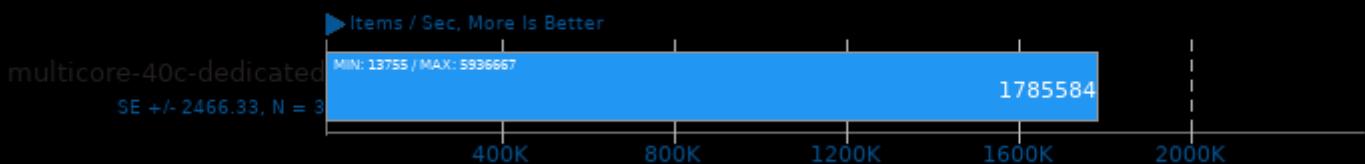
**OpenVKL 0.9**

Benchmark: vklBenchmarkStructuredVolume



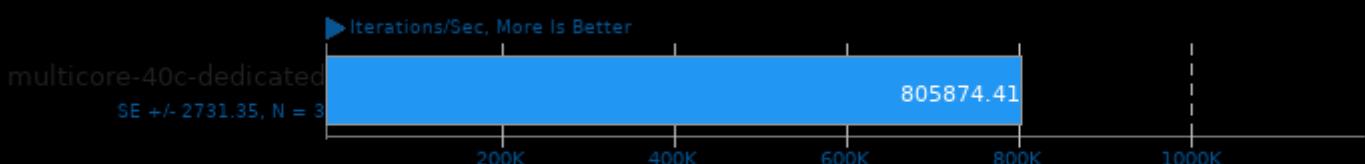
## OpenVKL 0.9

Benchmark: vklBenchmarkUnstructuredVolume



## Coremark 1.0

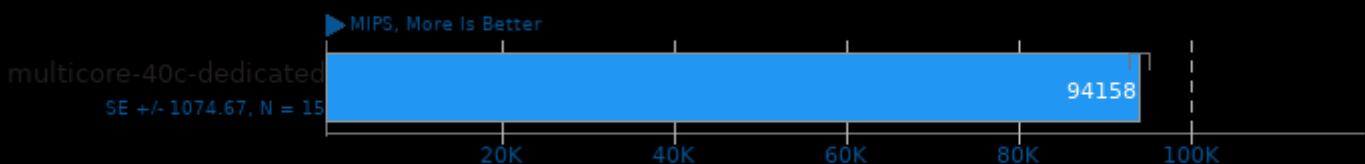
CoreMark Size 666 - Iterations Per Second



1. (CC) gcc options: -O2 -fomit-frame-pointer

## 7-Zip Compression 16.02

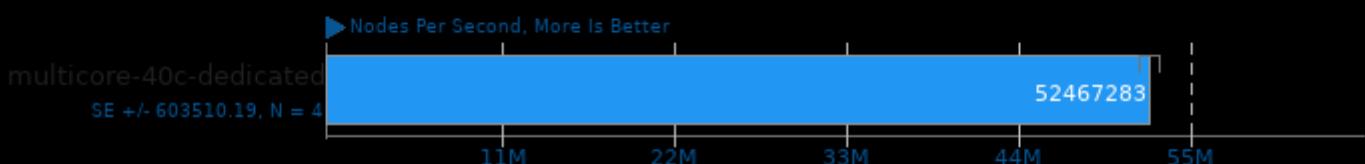
Compress Speed Test



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

## Stockfish 13

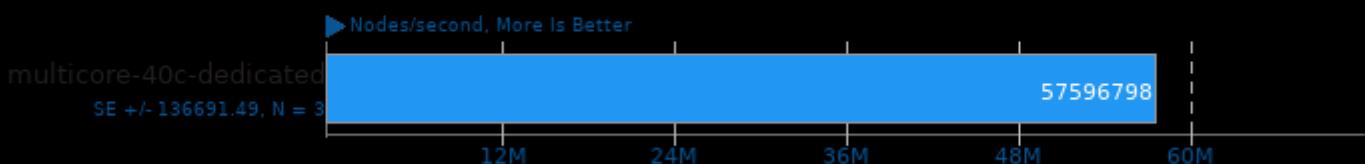
Total Time



1. (CXX) g++ options: -lgcov -m64 -fthread -fno-exceptions -std=c++17 -fprofile-use -fno-peel-loops -fno-tracer -pedantic -O3 -msse -msse3 -mpopcnt -

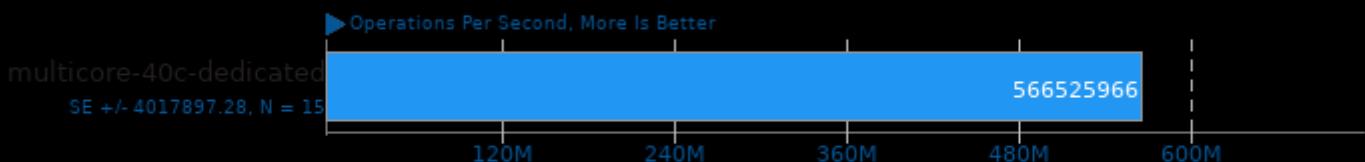
## asmFish 2018-07-23

1024 Hash Memory, 26 Depth



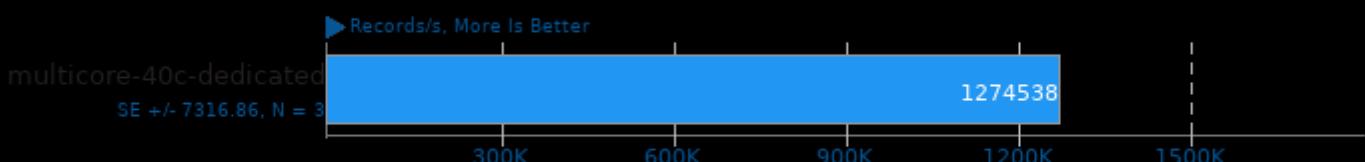
## Swet 1.5.16

Average



l. (CC) gcc options: -lm -lpthread -lcurses -lrt

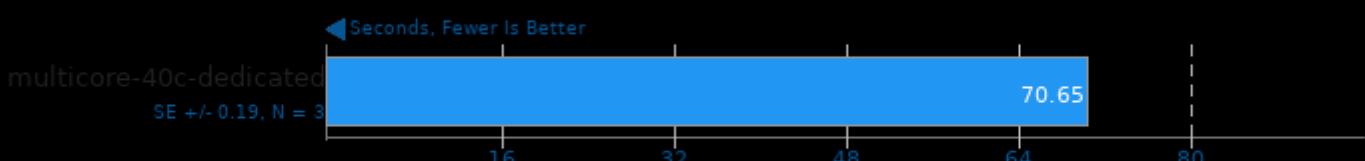
## ebizzy 0.3



l. (CC) gcc options: -pthread -lpthread -O3 -march=native

## libavif avifenc 0.9.0

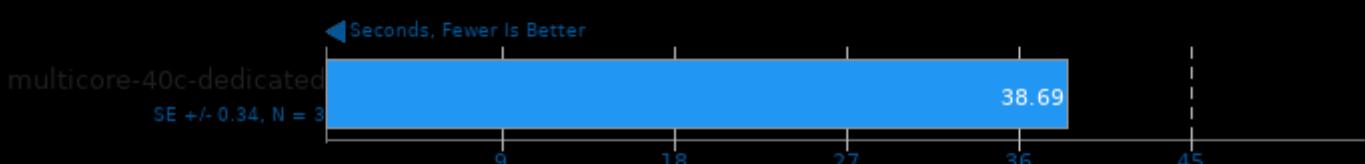
Encoder Speed: 0



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

## libavif avifenc 0.9.0

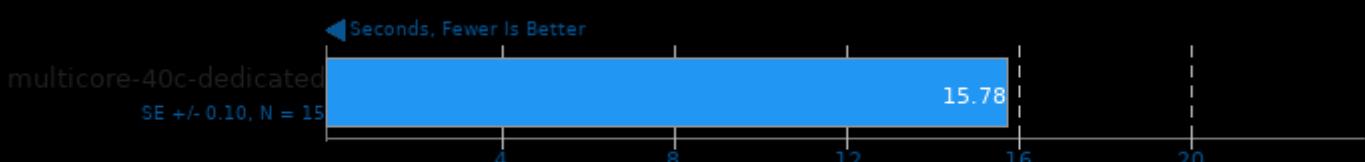
Encoder Speed: 2



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

## libavif avifenc 0.9.0

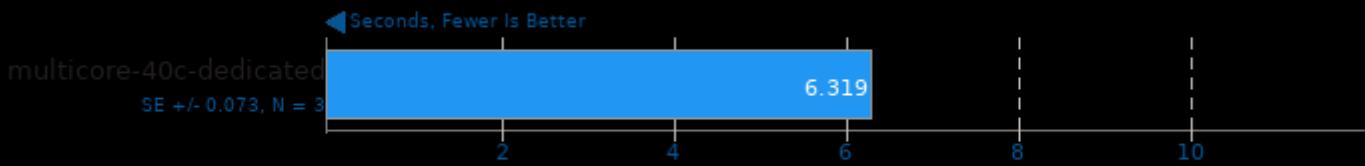
Encoder Speed: 6



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

**libavif avifenc 0.9.0**

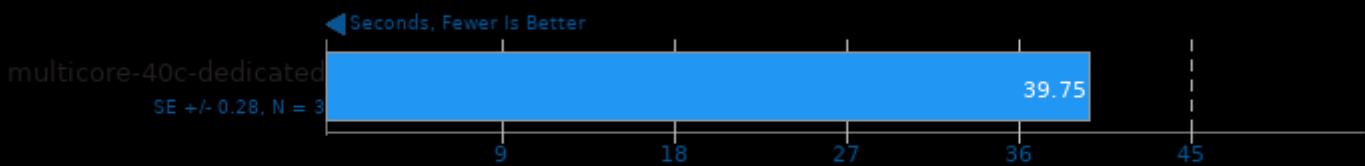
Encoder Speed: 10



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

**libavif avifenc 0.9.0**

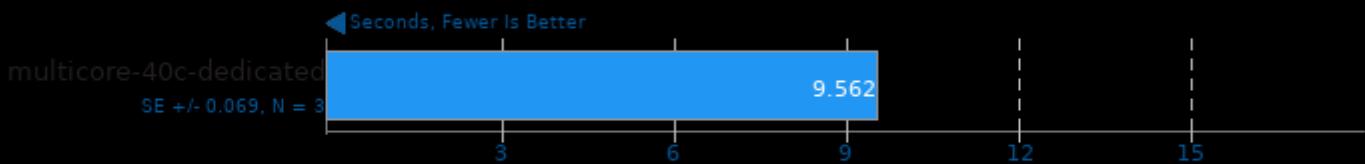
Encoder Speed: 6, Lossless



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

**libavif avifenc 0.9.0**

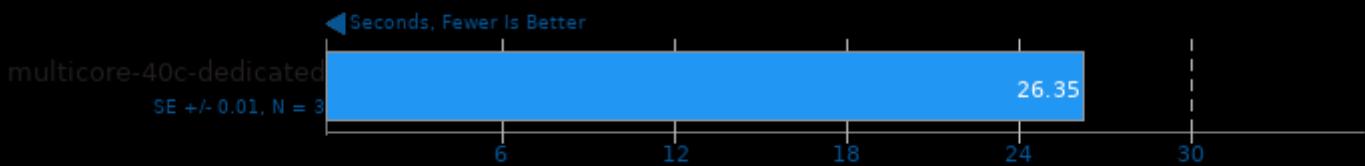
Encoder Speed: 10, Lossless



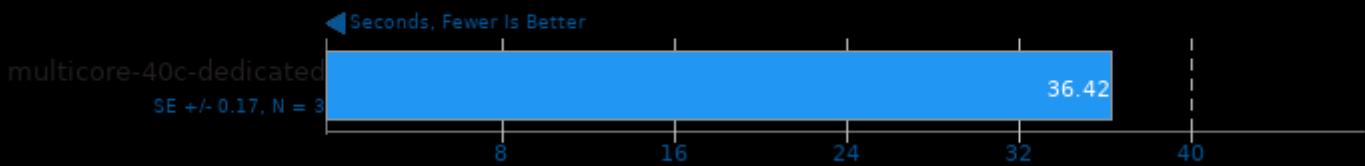
1. (CXX) g++ options: -O3 -fPIC -lm

**Timed Apache Compilation 2.4.41**

Time To Compile

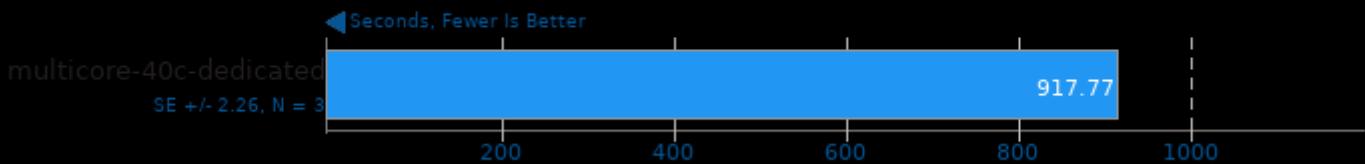
**Timed FFmpeg Compilation 4.4**

Time To Compile



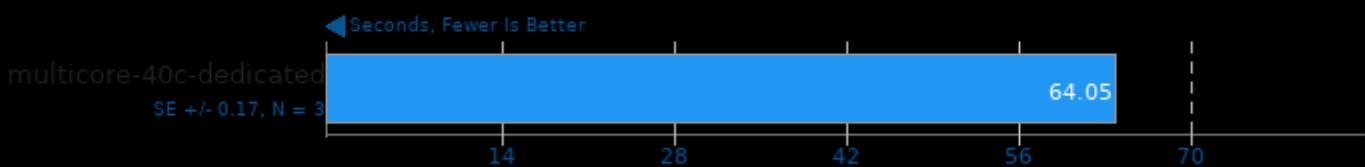
## Timed GCC Compilation 9.3.0

Time To Compile



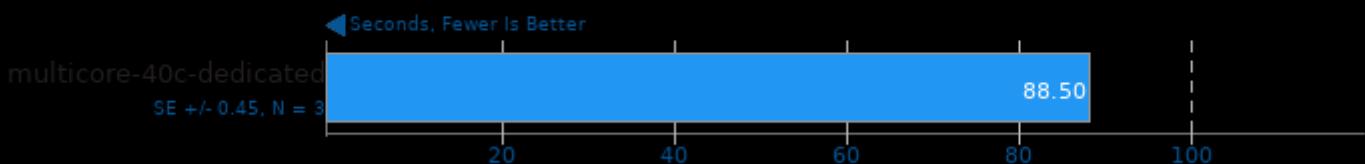
## Timed GDB GNU Debugger Compilation 10.2

Time To Compile



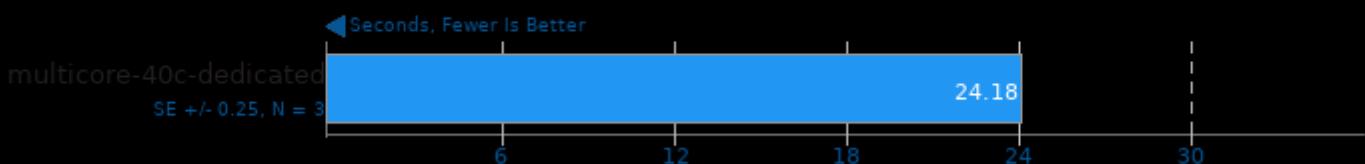
## Timed Godot Game Engine Compilation 3.2.3

Time To Compile



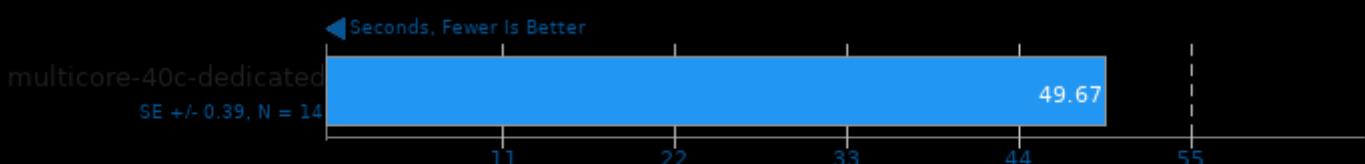
## Timed ImageMagick Compilation 6.9.0

Time To Compile



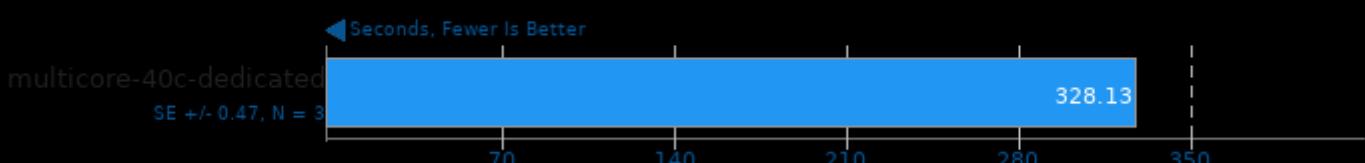
## Timed Linux Kernel Compilation 5.10.20

Time To Compile



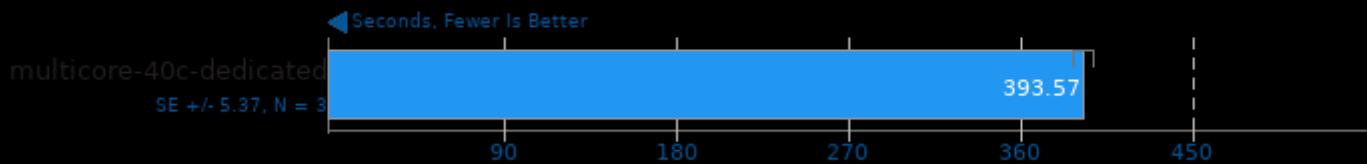
## Timed LLVM Compilation 12.0

Build System: Ninja



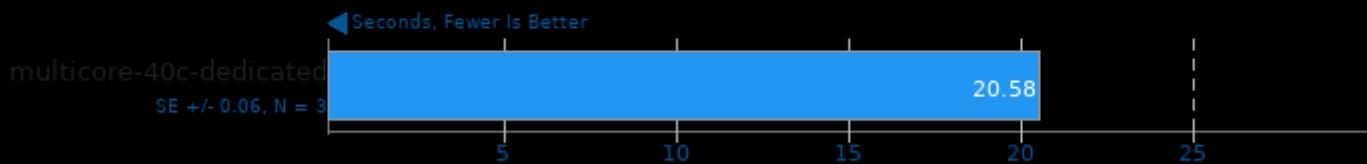
## Timed LLVM Compilation 12.0

Build System: Unix Makefiles



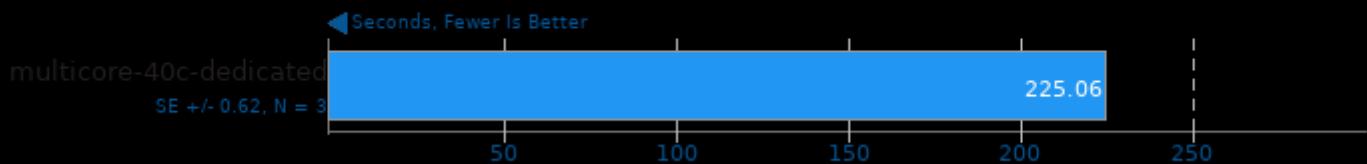
## Timed MPlayer Compilation 1.4

Time To Compile



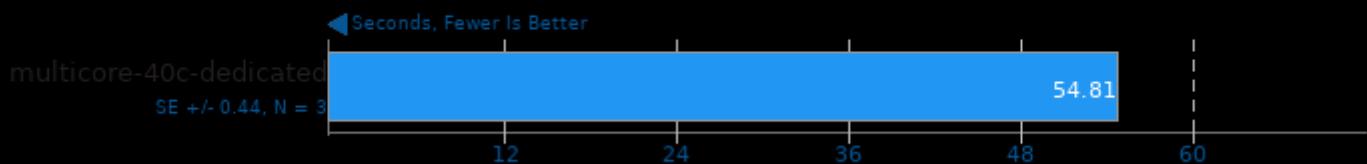
## Timed Node.js Compilation 15.11

Time To Compile



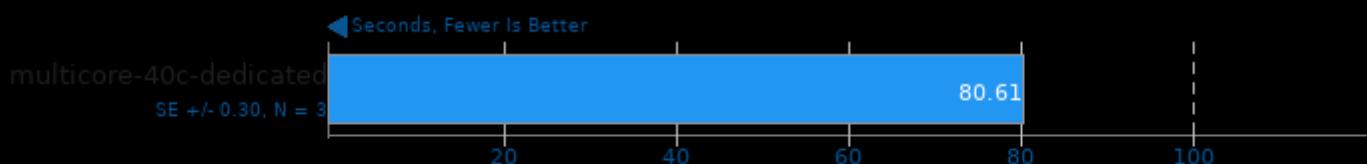
## Timed PHP Compilation 7.4.2

Time To Compile



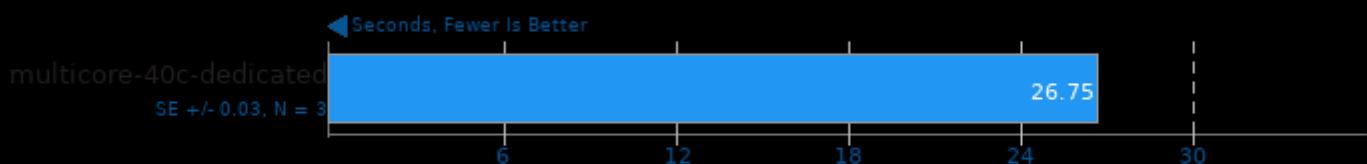
## Build2 0.13

Time To Compile



## C-Ray 1.1

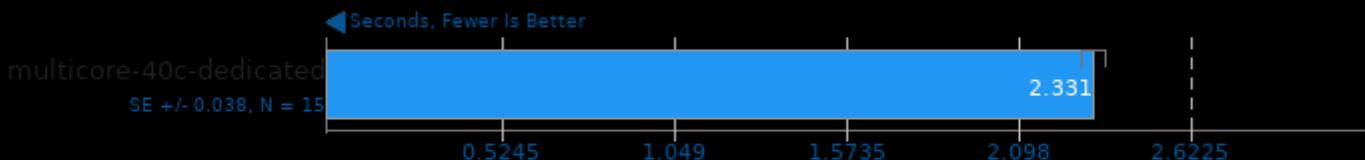
Total Time - 4K, 16 Rays Per Pixel



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

## Parallel BZIP2 Compression 1.1.12

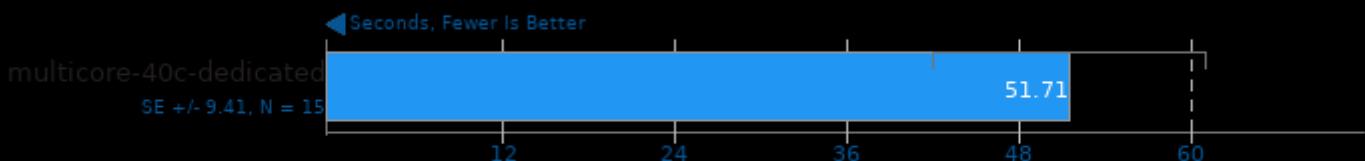
256MB File Compression



1. (CXX) g++ options: -O2 -pthread -lbz2 -pthread

## POV-Ray 3.7.0.7

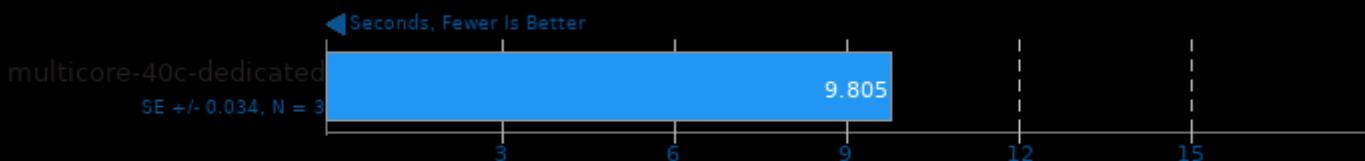
Trace Time



1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -pthread -lSDL -lXpm -lSM -ICE -lX11 -lXm -lmath -lHalf -lex -lexMath -lmmThread -lpthread

## Primesieve 7.4

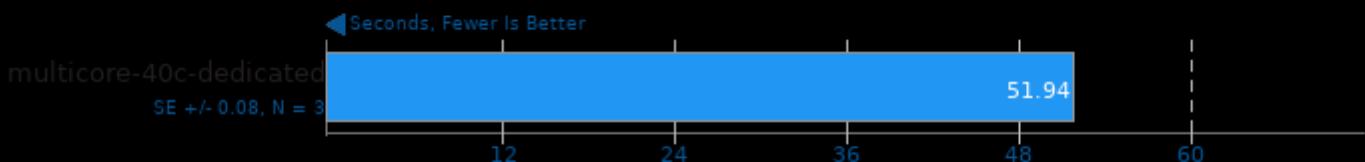
1e12 Prime Number Generation



1. (CXX) g++ options: -O3 -pthread

## Rust Mandelbrot

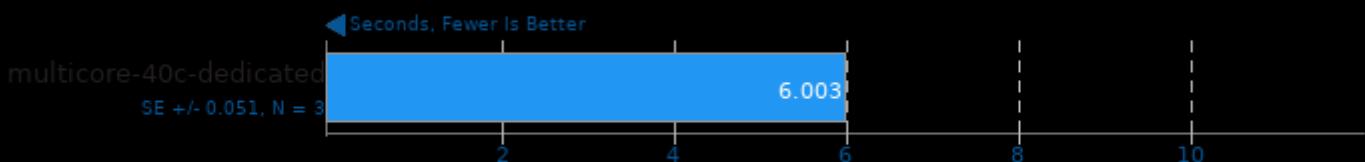
Time To Complete Serial/Parallel Mandelbrot



1. (CC) gcc options: -m64 -pie -nodefaultlibs -ldl -lrt -pthread -lgcc\_s -lc -lm -lutil

## Rust Prime Benchmark

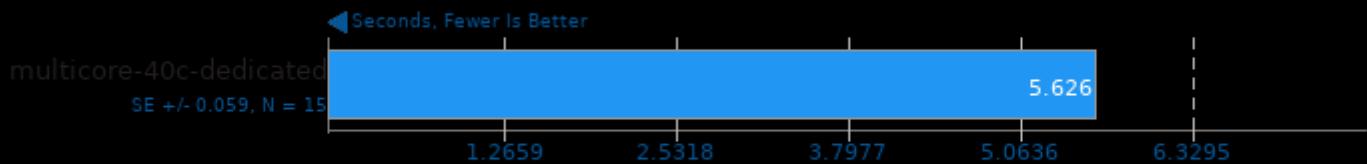
Prime Number Test To 200,000,000



1. (CC) gcc options: -m64 -pie -nodefaultlibs -ldl -lrt -pthread -lgcc\_s -lc -lm -lutil

## Smallpt 1.0

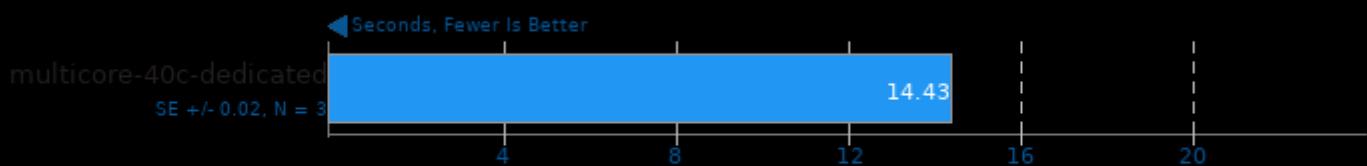
Global Illumination Renderer; 128 Samples



1. (CXX) g++ options: -fopenmp -O3

## Tungsten Renderer 0.2.2

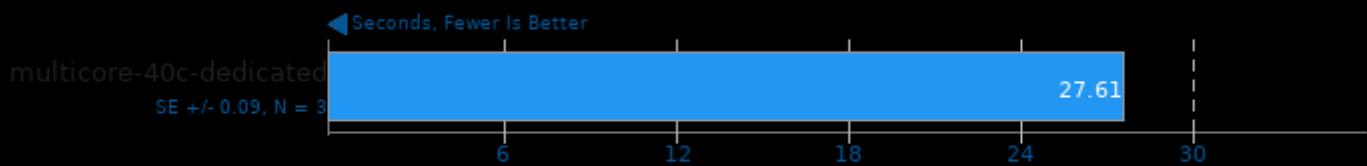
Scene: Hair



1. (CXX) g++ options: -std=c++0x -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -mfma -mbmi2 -mavx512f -mavx512vl -mavx512cd -mavx512dq -mavx512

## Tungsten Renderer 0.2.2

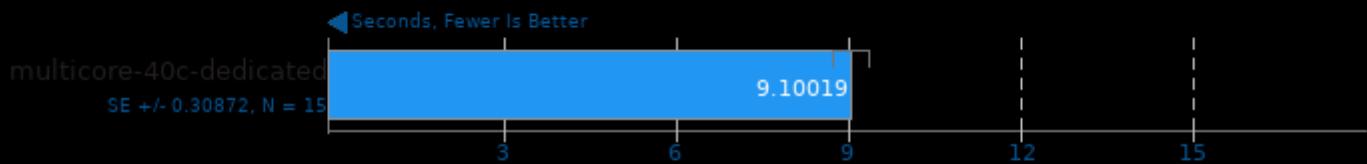
Scene: Water Caustic



1. (CXX) g++ options: -std=c++0x -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -mfma -mbmi2 -mavx512f -mavx512vl -mavx512cd -mavx512dq -mavx512

## Tungsten Renderer 0.2.2

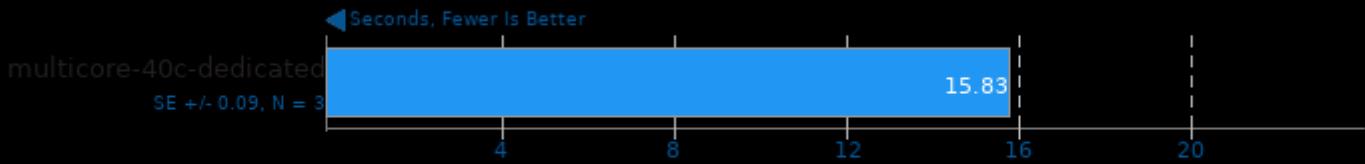
Scene: Non-Exponential



1. (CXX) g++ options: -std=c++0x -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -mfma -mbmi2 -mavx512f -mavx512vl -mavx512cd -mavx512dq -mavx512

## Tungsten Renderer 0.2.2

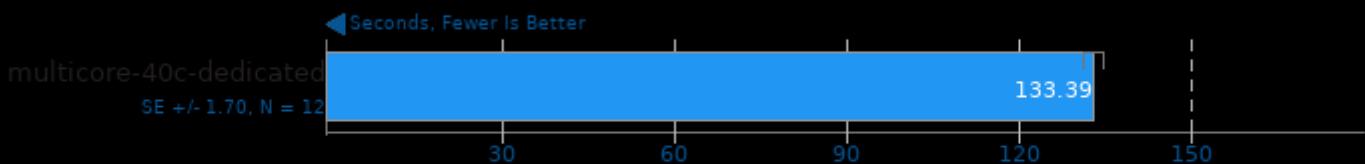
Scene: Volumetric Caustic



1. (CXX) g++ options: -std=c++0x -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -mfma -mbmi2 -mavx512f -mavx512vl -mavx512cd -mavx512dq -mavx512

## YafaRay 3.4.1

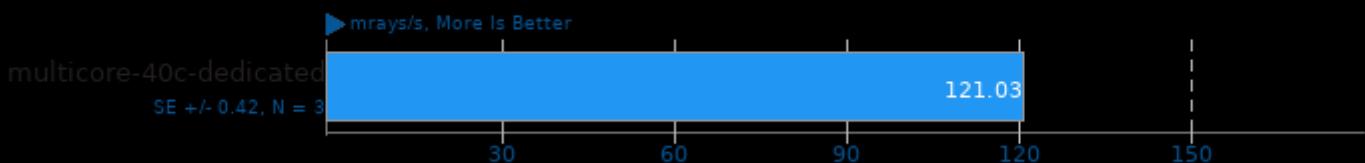
Total Time For Sample Scene



1. (CXX) g++ options: -std=c++11 -O3 -ffast-math -rdynamic -ldl -lmath -lmlmf -lex -lHalf -lz -lilmThread -lxml2 -lfreetype -lpthread

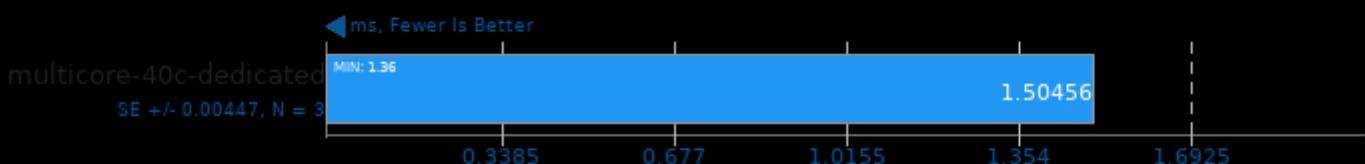
## rays1bench 2020-01-09

Large Scene



## oneDNN 2.1.2

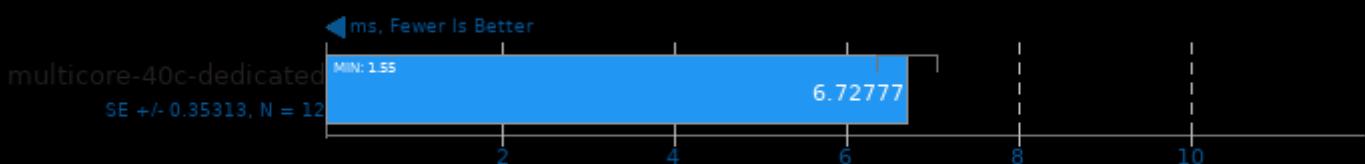
Harness: IP Shapes 1D - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

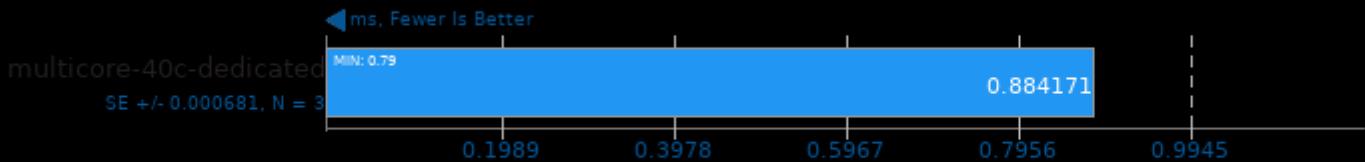
Harness: IP Shapes 3D - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

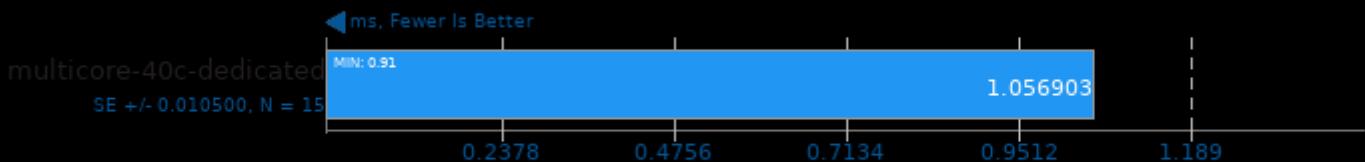
Harness: IP Shapes 1D - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

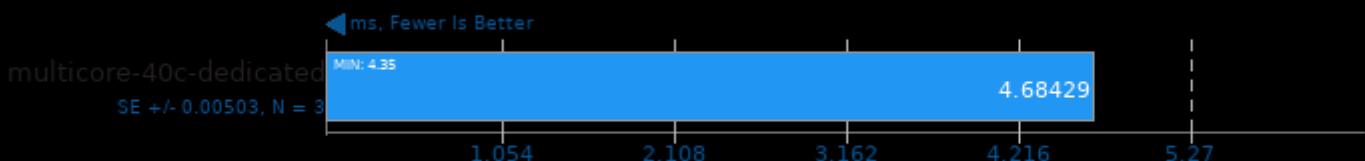
Harness: IP Shapes 3D - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

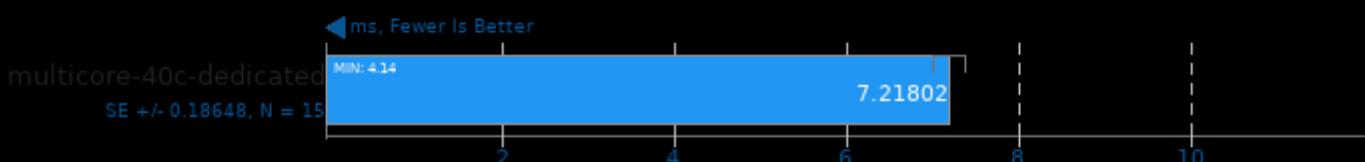
Harness: IP Shapes 1D - Data Type: bf16bf16bf16 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

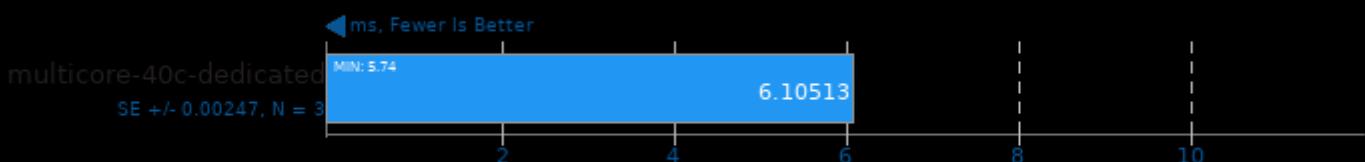
Harness: IP Shapes 3D - Data Type: bf16bf16bf16 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

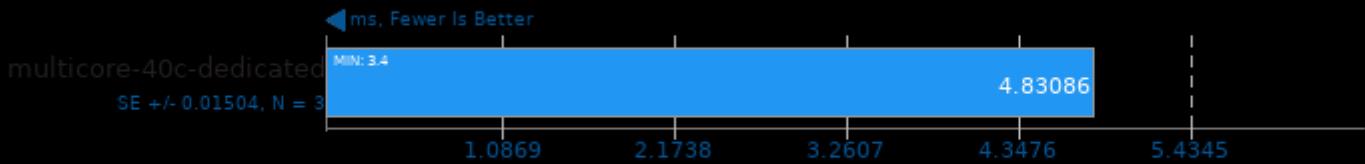
Harness: Convolution Batch Shapes Auto - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

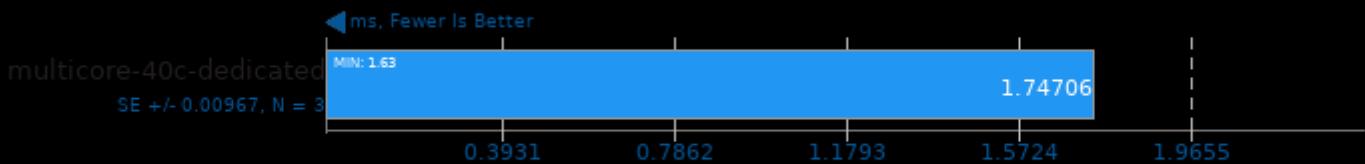
Harness: Deconvolution Batch shapes\_1d - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

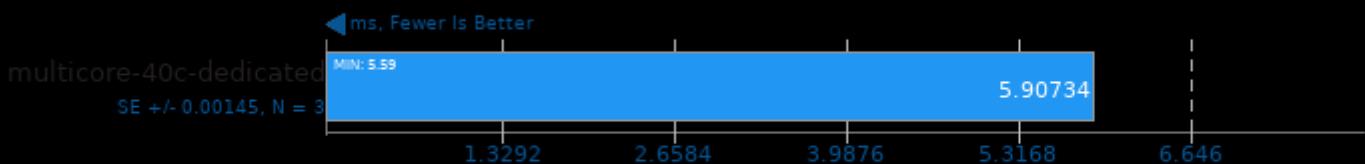
Harness: Deconvolution Batch shapes\_3d - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

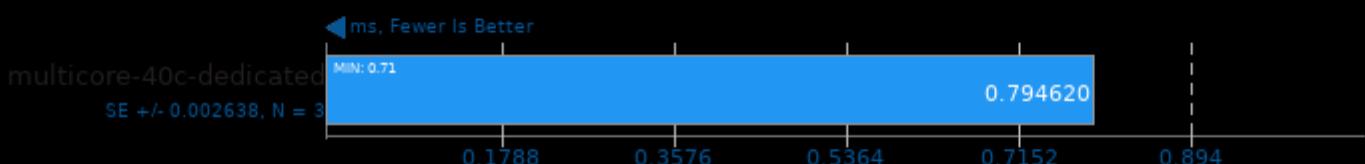
Harness: Convolution Batch Shapes Auto - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

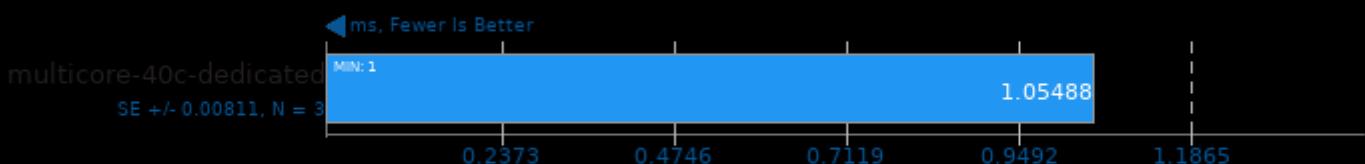
Harness: Deconvolution Batch shapes\_1d - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

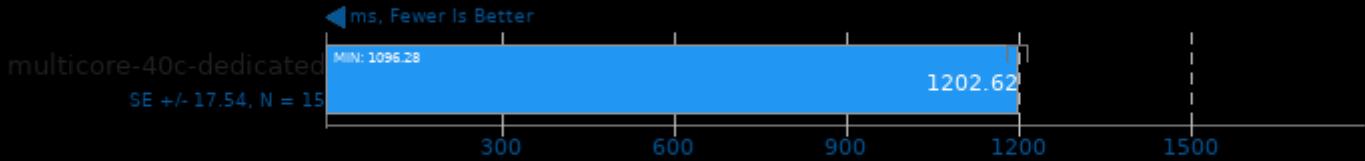
Harness: Deconvolution Batch shapes\_3d - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

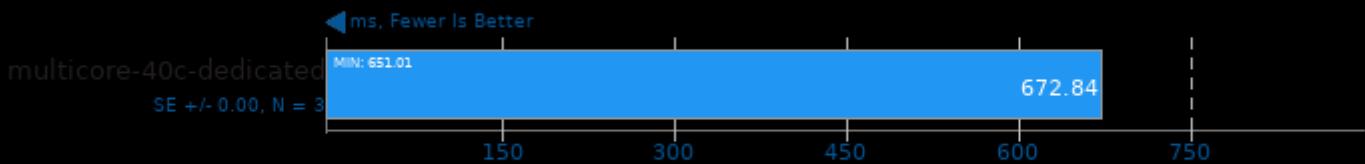
Harness: Recurrent Neural Network Training - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

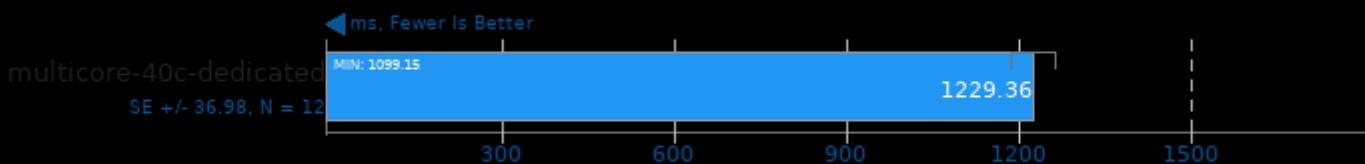
Harness: Recurrent Neural Network Inference - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

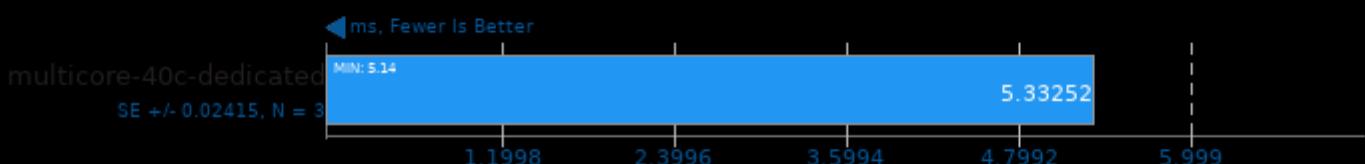
Harness: Recurrent Neural Network Training - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

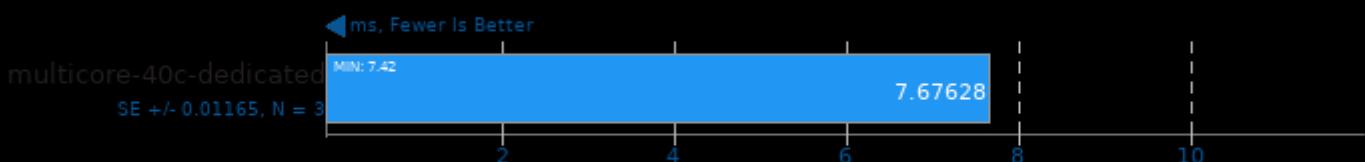
Harness: Convolution Batch Shapes Auto - Data Type: bf16bf16bf16 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

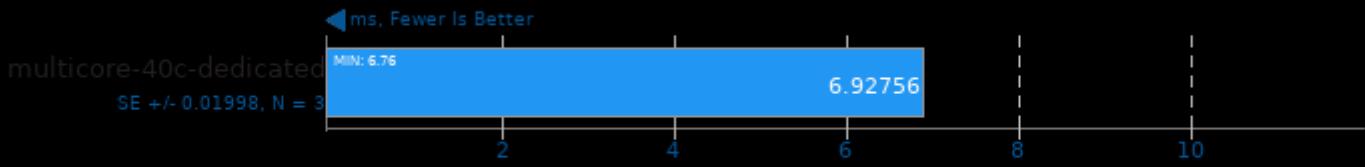
Harness: Deconvolution Batch shapes\_1d - Data Type: bf16bf16bf16 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

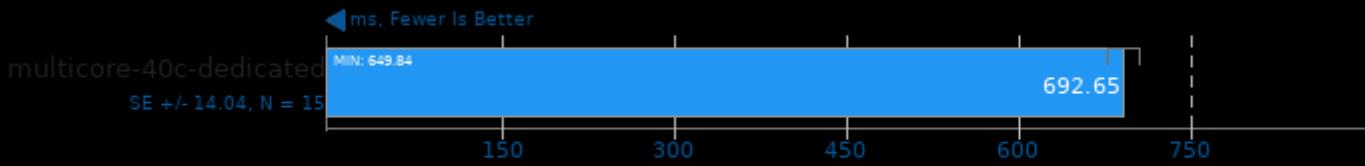
Harness: Deconvolution Batch shapes\_3d - Data Type: bf16bf16bf16 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

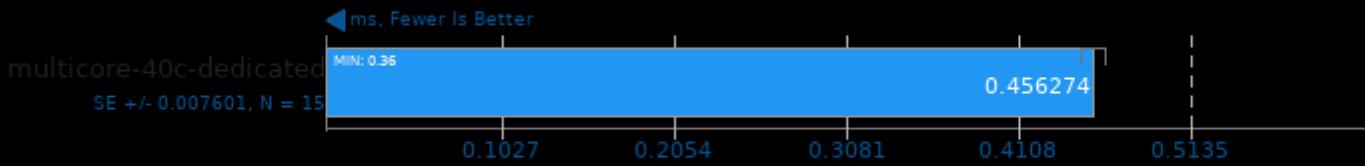
Harness: Recurrent Neural Network Inference - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

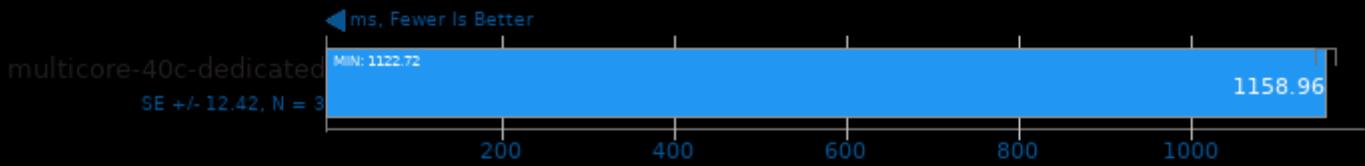
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

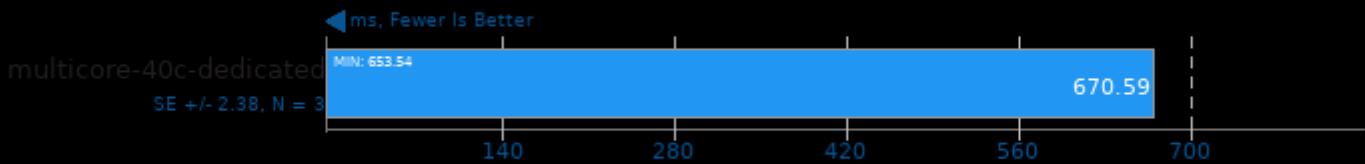
Harness: Recurrent Neural Network Training - Data Type: bf16bf16bf16 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

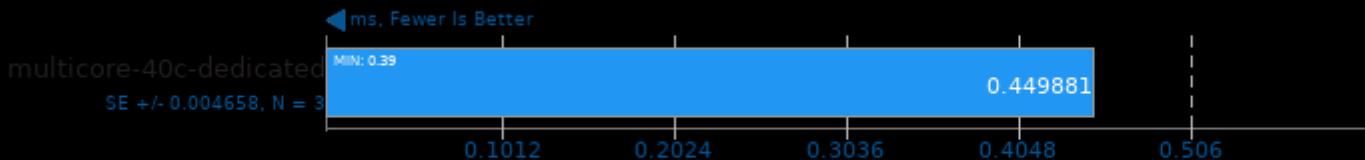
Harness: Recurrent Neural Network Inference - Data Type: bf16bf16bf16 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

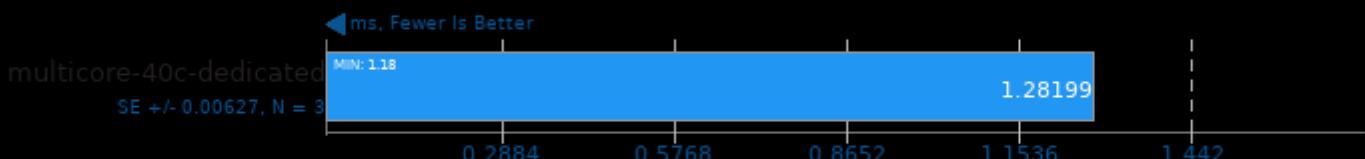
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## oneDNN 2.1.2

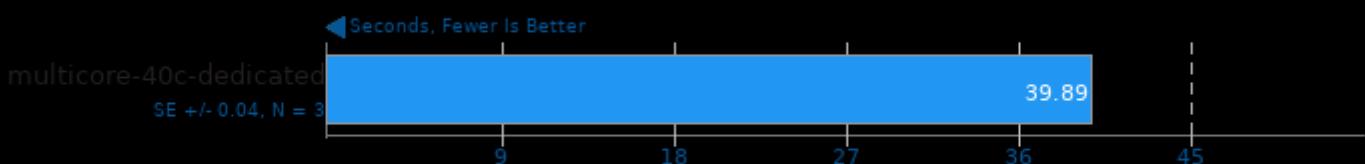
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: bf16bf16bf16 - Engine: CPU



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

## AOBench

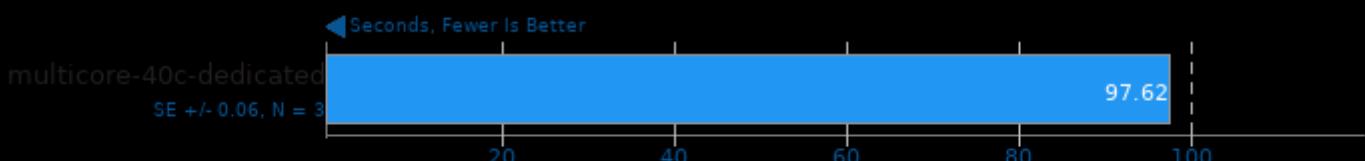
Size: 2048 x 2048 - Total Time



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

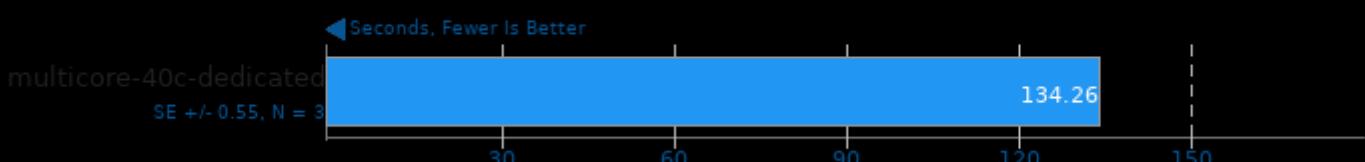
## Timed Eigen Compilation 3.3.9

Time To Compile



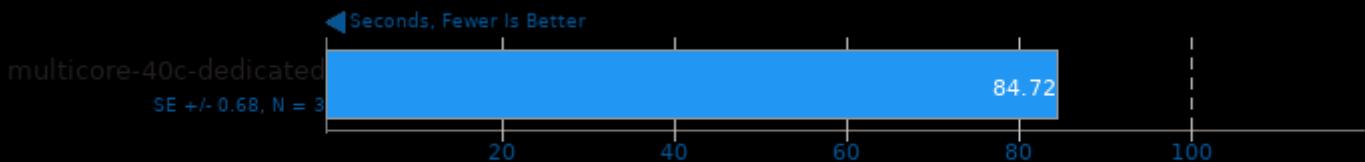
## Timed Erlang/OTP Compilation 23.2

Time To Compile



## Timed Wasmer Compilation 1.0.2

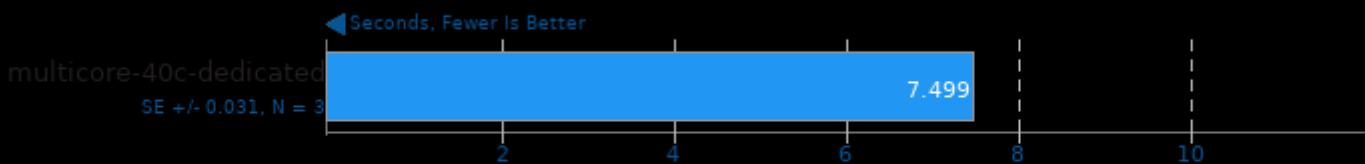
Time To Compile



1. (CC) gcc options: -m64 -pie -nodefaultlibs -ldl -lrt -lpthread -lgcc\_s -lc -lm -lutil

## FFmpeg 4.0.2

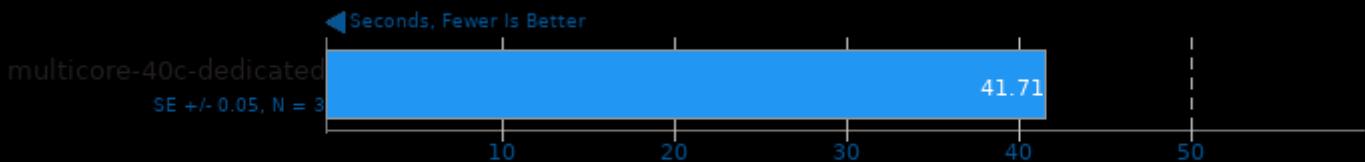
H.264 HD To NTSC DV



1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lXv -lX11 -lXext -lm -xcb -lasound -pthread -lva -lbz2 -lzma

## m-queens 1.2

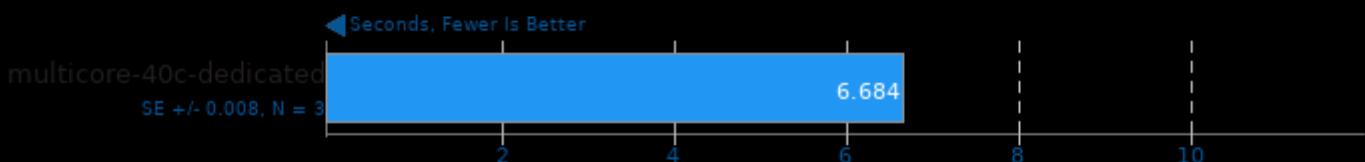
Time To Solve



1. (CXX) g++ options: -fopenmp -O2 -march=native

## N-Queens 1.0

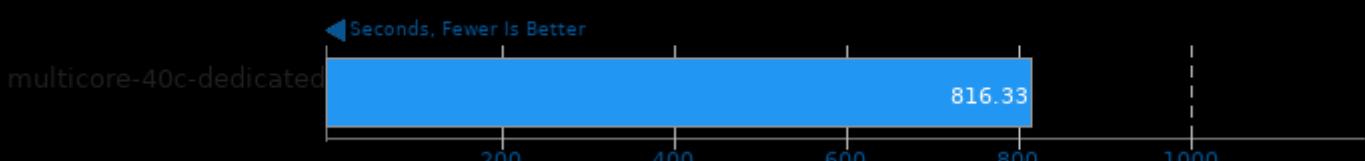
Elapsed Time



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

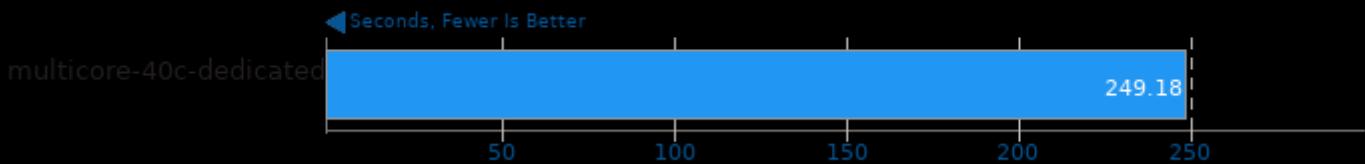
## Radiance Benchmark 5.0

Test: Serial



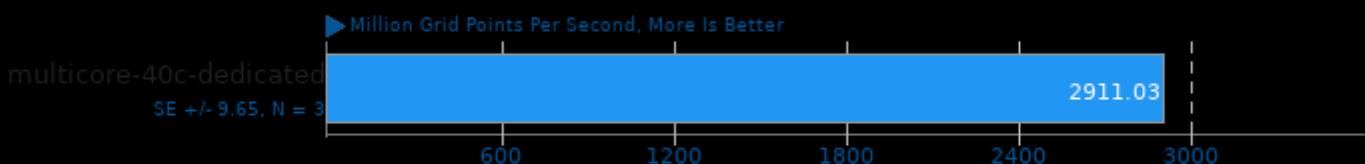
## Radiance Benchmark 5.0

Test: SMP Parallel



## ASKAP 1.0

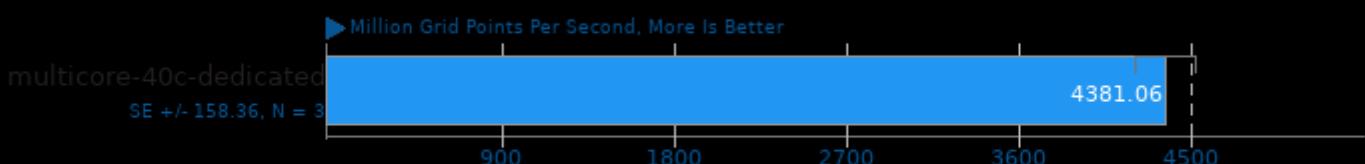
Test: tConvolve MT - Gridding



1. (CXX) g++ options: -O3 -fstrict-aliasing -fopenmp

## ASKAP 1.0

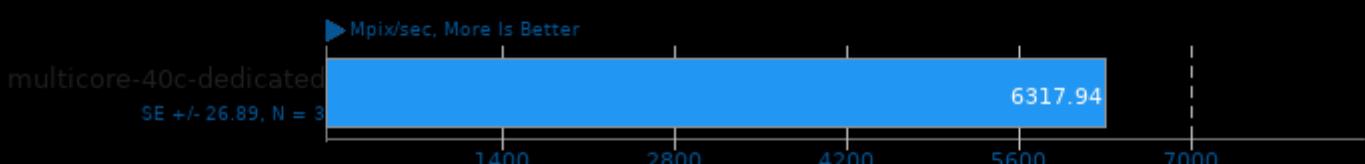
Test: tConvolve MT - Degridding



1. (CXX) g++ options: -O3 -fstrict-aliasing -fopenmp

## ASKAP 1.0

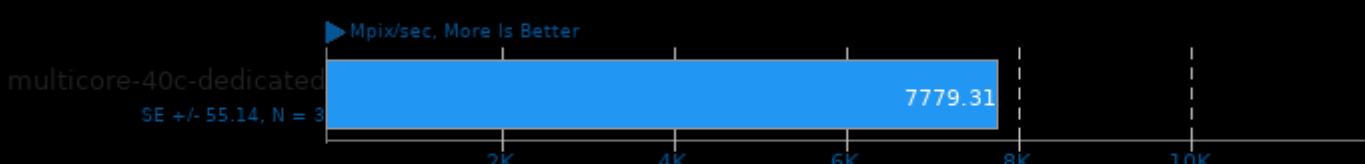
Test: tConvolve MPI - Degridding



1. (CXX) g++ options: -O3 -fstrict-aliasing -fopenmp

## ASKAP 1.0

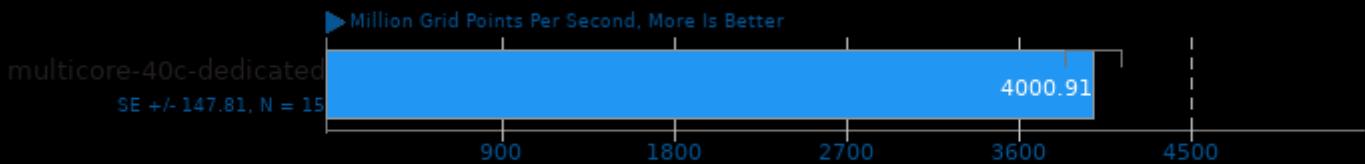
Test: tConvolve MPI - Gridding



1. (CXX) g++ options: -O3 -fstrict-aliasing -fopenmp

## ASKAP 1.0

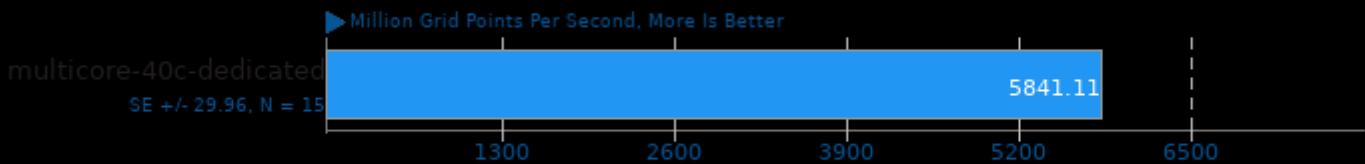
Test: tConvolve OpenMP - Gridding



1. (CXX) g++ options: -O3 -fstrict-aliasing -fopenmp

## ASKAP 1.0

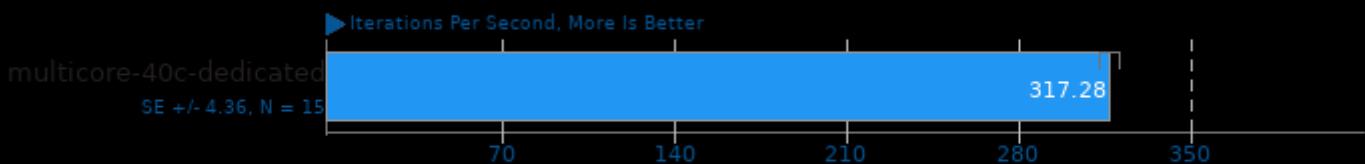
Test: tConvolve OpenMP - Degridding



1. (CXX) g++ options: -O3 -fstrict-aliasing -fopenmp

## ASKAP 1.0

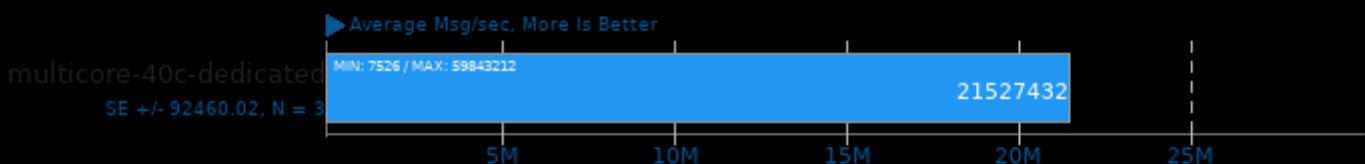
Test: Hogbom Clean OpenMP



1. (CXX) g++ options: -O3 -fstrict-aliasing -fopenmp

## Intel MPI Benchmarks 2019.3

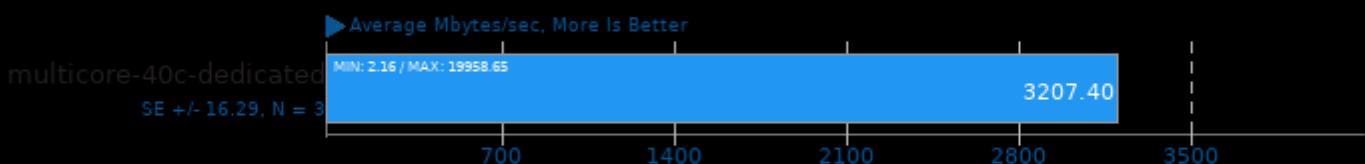
Test: IMB-P2P PingPong



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi\_cxx -lmpi

## Intel MPI Benchmarks 2019.3

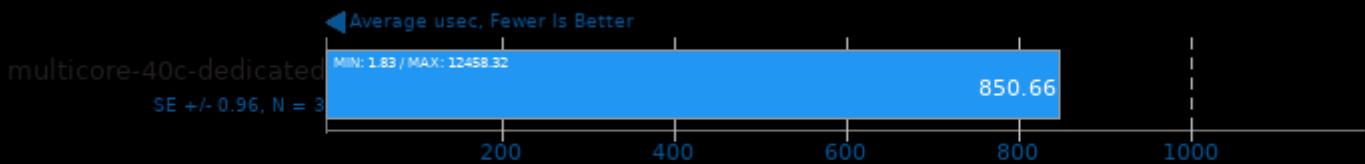
Test: IMB-MPII Exchange



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi\_cxx -lmpi

## Intel MPI Benchmarks 2019.3

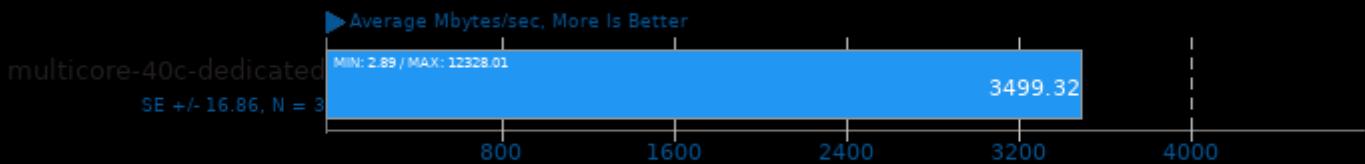
Test: IMB-MPI1 Exchange



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi\_cxx -lmpi

## Intel MPI Benchmarks 2019.3

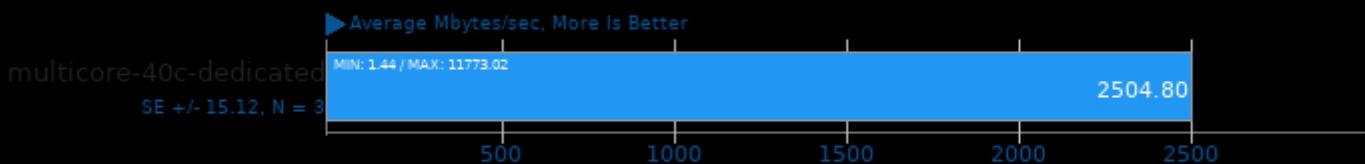
Test: IMB-MPI1 PingPong



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi\_cxx -lmpi

## Intel MPI Benchmarks 2019.3

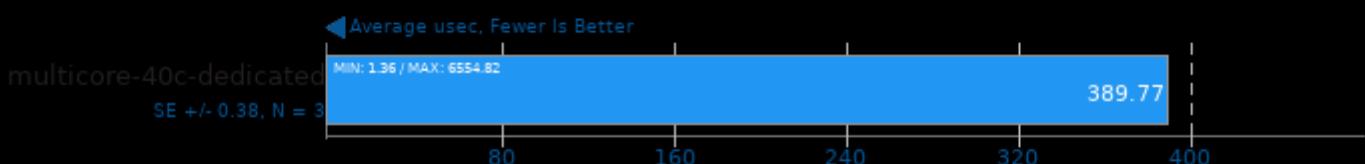
Test: IMB-MPI1 Sendrecv



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi\_cxx -lmpi

## Intel MPI Benchmarks 2019.3

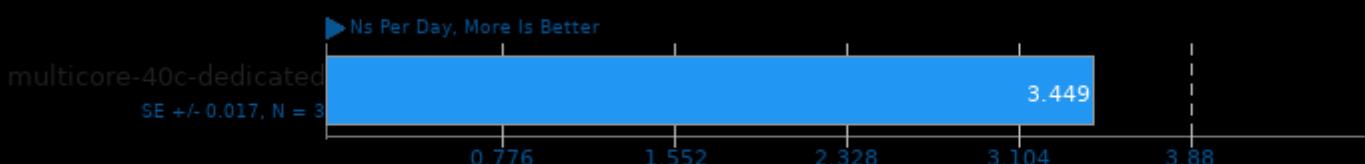
Test: IMB-MPI1 Sendrecv



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi\_cxx -lmpi

## GROMACS 2021.2

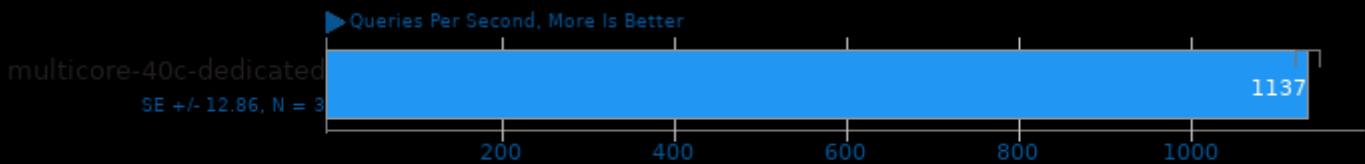
Implementation: MPI CPU - Input: water\_GMX50\_bare



1. (CXX) g++ options: -O3 -pthread

## MariaDB 10.5.2

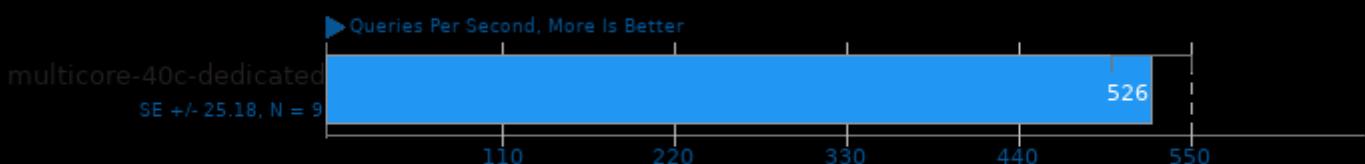
Clients: 1



1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lpthread -llzma -lbz2 -laio -l numa -lpcre2-8 -lcrypt -lz -lm -lssl -lcrypto -ldl

## MariaDB 10.5.2

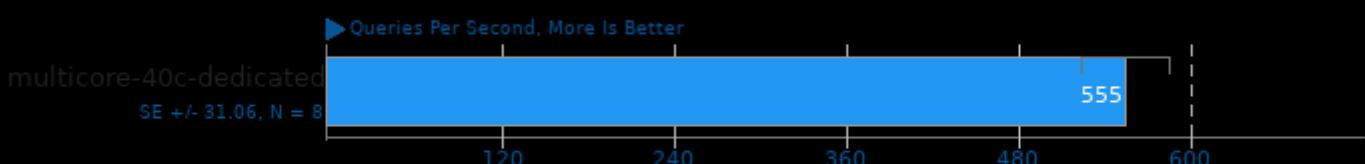
Clients: 4



1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lpthread -llzma -lbz2 -laio -l numa -lpcre2-8 -lcrypt -lz -lm -lssl -lcrypto -ldl

## MariaDB 10.5.2

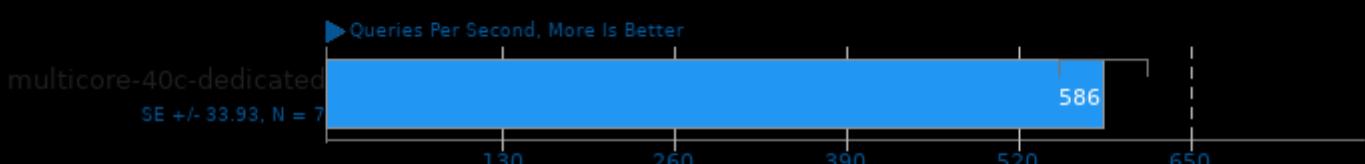
Clients: 8



1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lpthread -llzma -lbz2 -laio -l numa -lpcre2-8 -lcrypt -lz -lm -lssl -lcrypto -ldl

## MariaDB 10.5.2

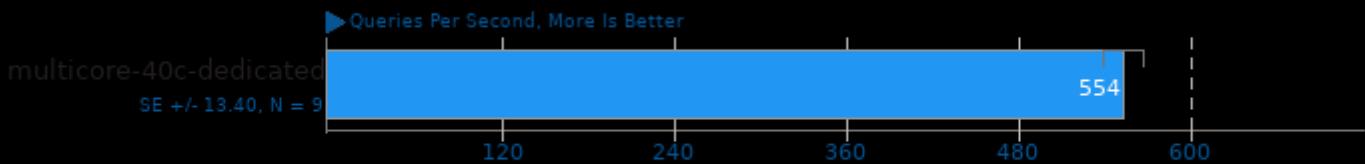
Clients: 16



1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lpthread -llzma -lbz2 -laio -l numa -lpcre2-8 -lcrypt -lz -lm -lssl -lcrypto -ldl

## MariaDB 10.5.2

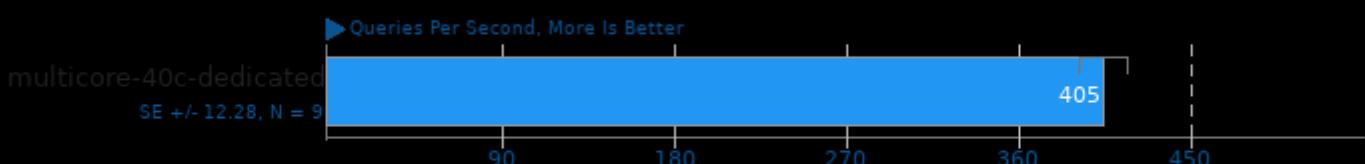
Clients: 32



1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lpthread -llzma -lbz2 -laio -l numa -lpcre2-8 -lcrypt -lz -lm -lssl -lcrypto -ldl

## MariaDB 10.5.2

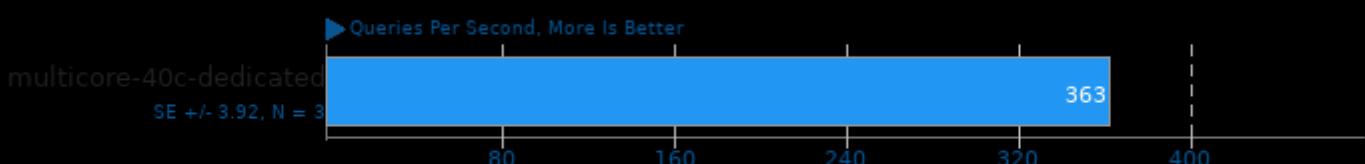
Clients: 64



1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lpthread -llzma -lbz2 -laio -l numa -lpcre2-8 -lcrypt -lz -lm -lssl -lcrypto -ldl

## MariaDB 10.5.2

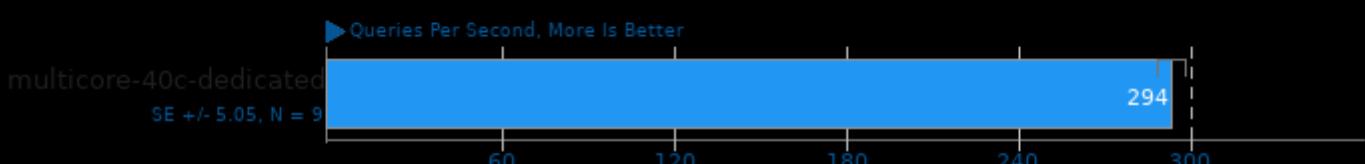
Clients: 128



1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lpthread -llzma -lbz2 -laio -l numa -lpcre2-8 -lcrypt -lz -lm -lssl -lcrypto -ldl

## MariaDB 10.5.2

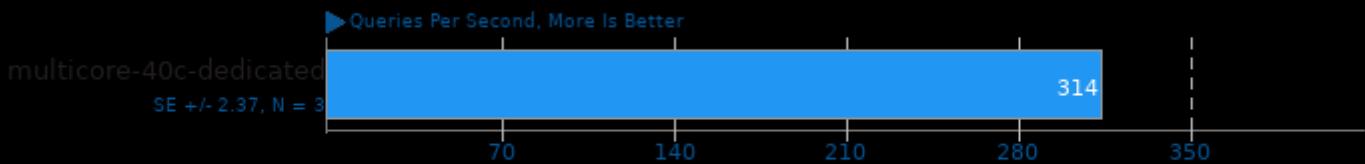
Clients: 256



1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -lpthread -llzma -lbz2 -laio -l numa -lpcre2-8 -lcrypt -lz -lm -lssl -lcrypto -ldl

## MariaDB 10.5.2

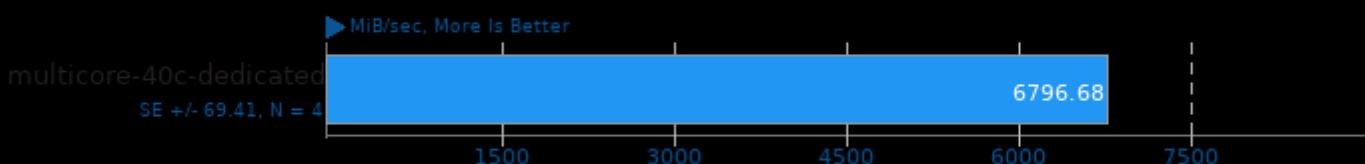
Clients: 512



1. (CXX) g++ options: -pie -fPIC -fstack-protector -O2 -pthread -llzma -lbz2 -laio -Inuma -lpcre2-8 -lcrypt -lz -lm -lssl -lcrypto -ldl

## Sysbench 1.0.20

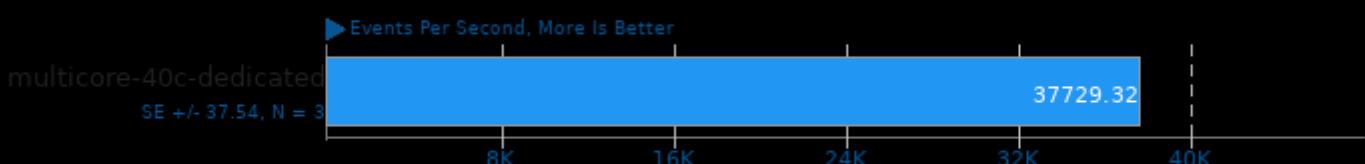
Test: RAM / Memory



1. (CC) gcc options: -pthread -O2 -funroll-loops -rdynamic -ldl -laio -lm

## Sysbench 1.0.20

Test: CPU



1. (CC) gcc options: -pthread -O2 -funroll-loops -rdynamic -ldl -laio -lm

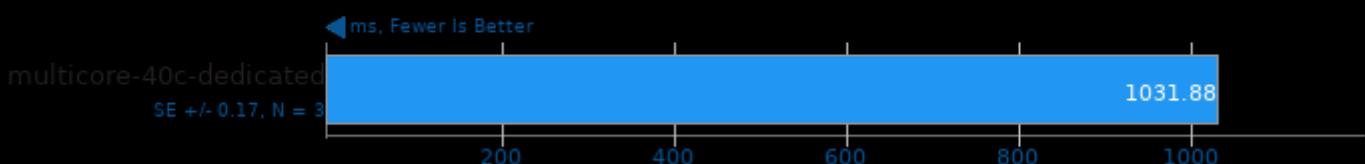
## OpenVINO 2021.1

Model: Face Detection 0106 FP16 - Device: CPU



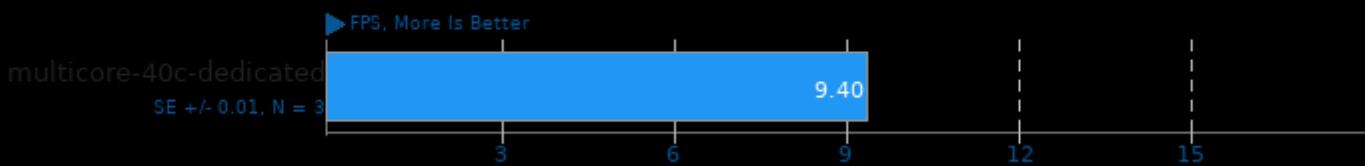
## OpenVINO 2021.1

Model: Face Detection 0106 FP16 - Device: CPU



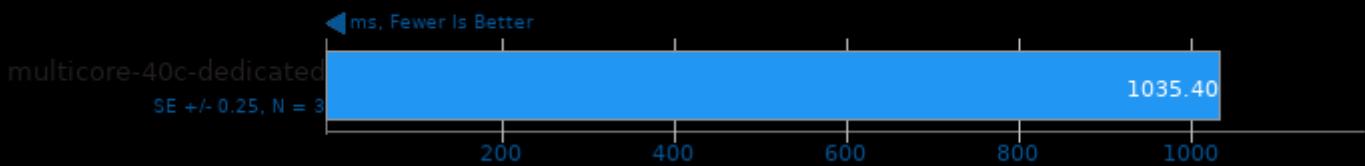
## OpenVINO 2021.1

Model: Face Detection 0106 FP32 - Device: CPU



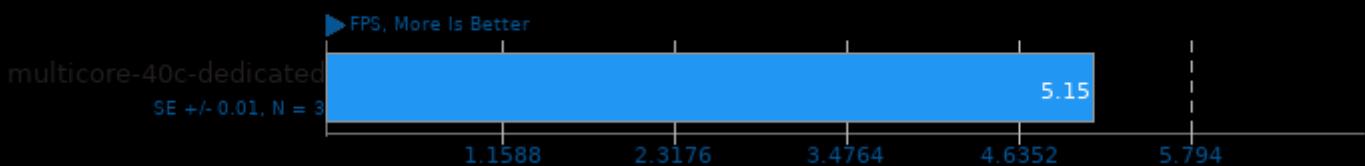
## OpenVINO 2021.1

Model: Face Detection 0106 FP32 - Device: CPU



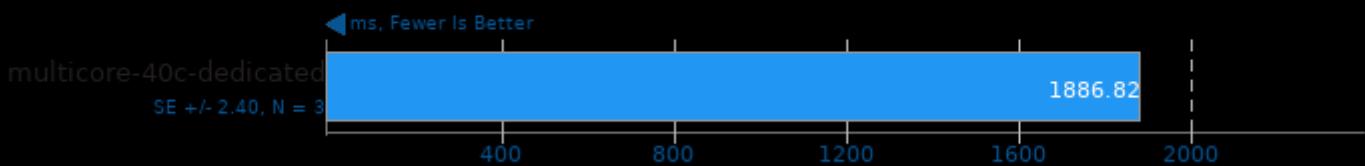
## OpenVINO 2021.1

Model: Person Detection 0106 FP16 - Device: CPU



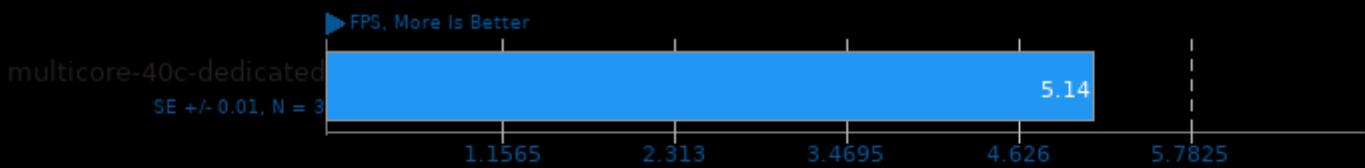
## OpenVINO 2021.1

Model: Person Detection 0106 FP16 - Device: CPU



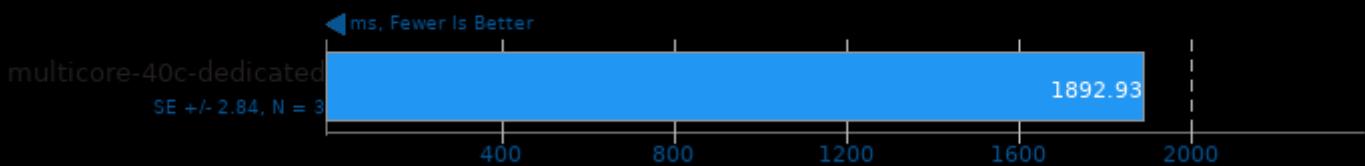
## OpenVINO 2021.1

Model: Person Detection 0106 FP32 - Device: CPU



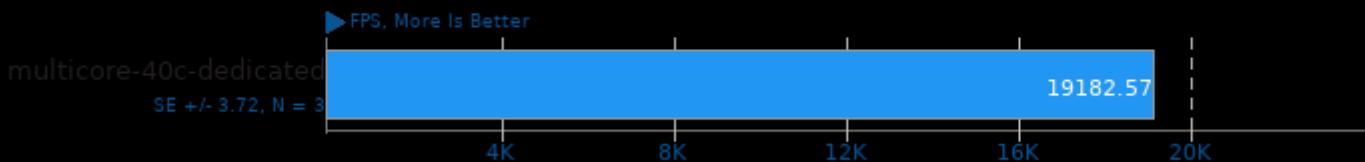
## OpenVINO 2021.1

Model: Person Detection 0106 FP32 - Device: CPU



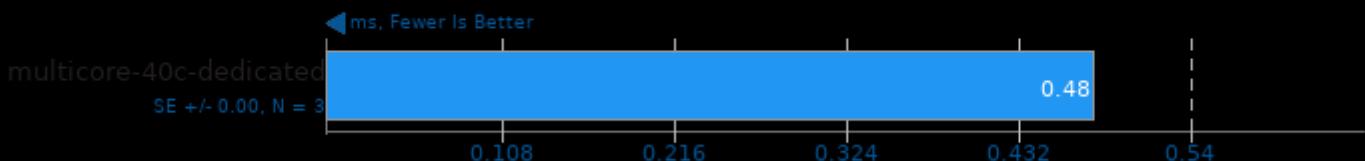
## OpenVINO 2021.1

Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU



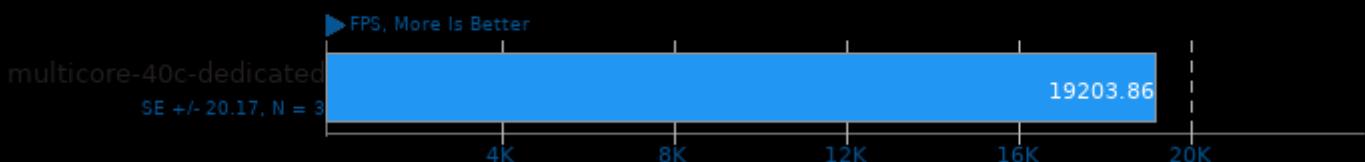
## OpenVINO 2021.1

Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU



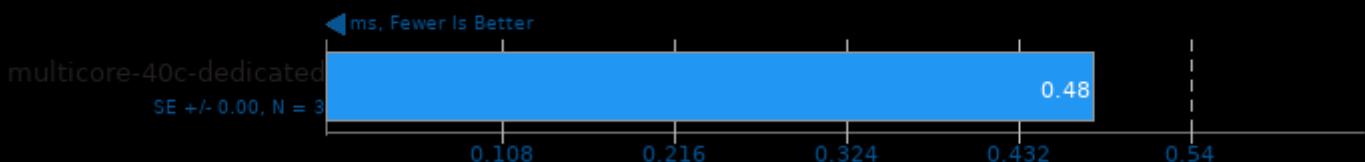
## OpenVINO 2021.1

Model: Age Gender Recognition Retail 0013 FP32 - Device: CPU



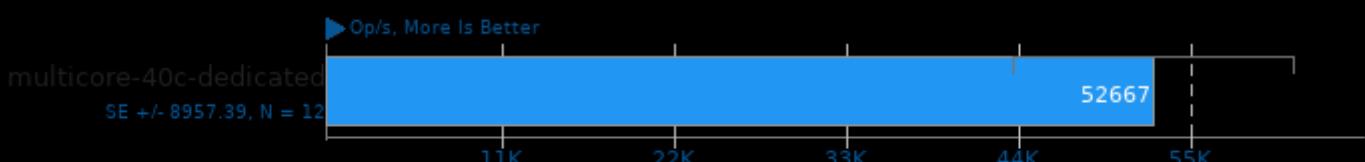
## OpenVINO 2021.1

Model: Age Gender Recognition Retail 0013 FP32 - Device: CPU



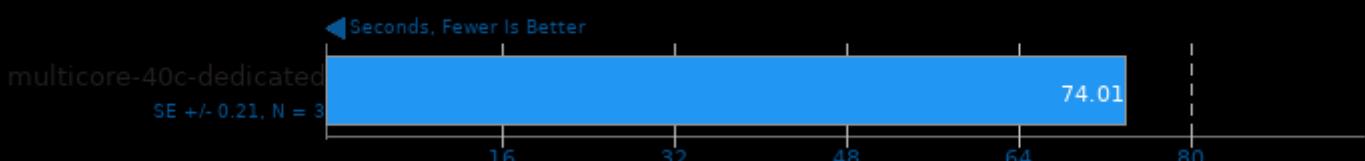
## Apache Cassandra 3.11.4

Test: Reads



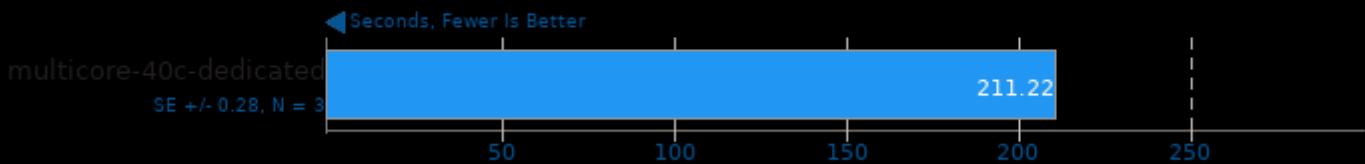
## Blender 2.92

Blend File: BMW27 - Compute: CPU-Only

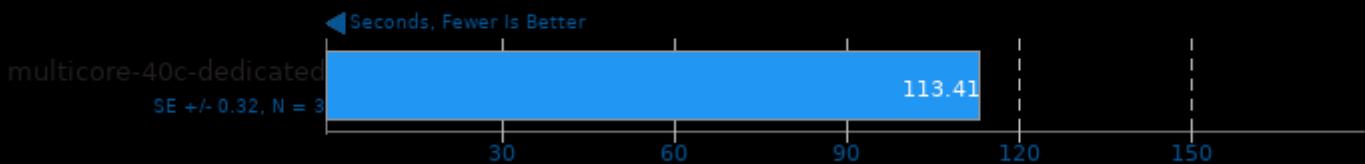


**Blender 2.92**

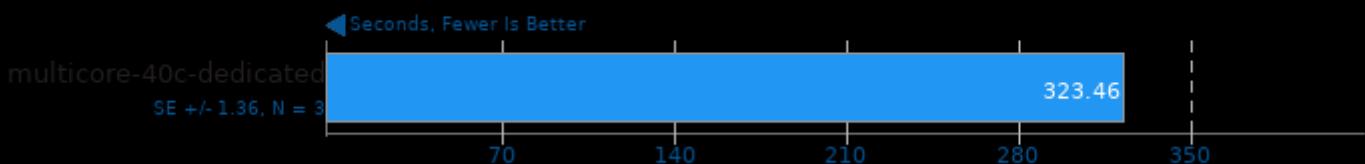
Blend File: Classroom - Compute: CPU-Only

**Blender 2.92**

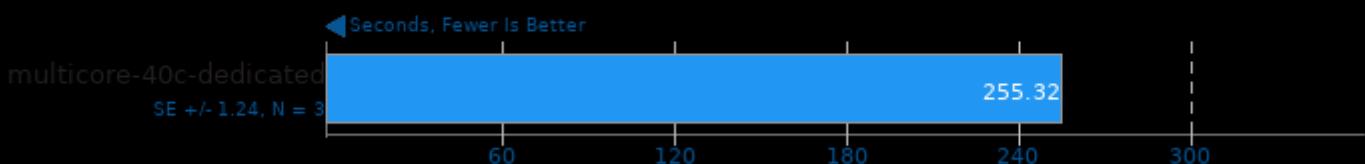
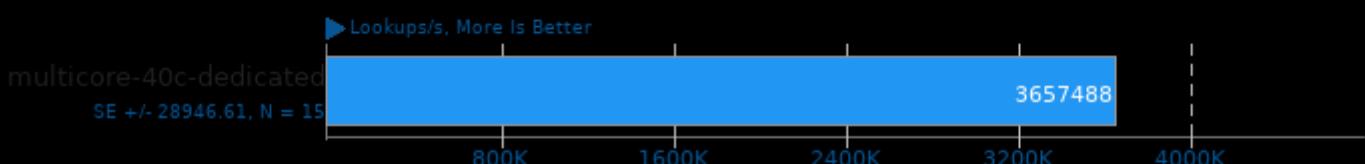
Blend File: Fishy Cat - Compute: CPU-Only

**Blender 2.92**

Blend File: Barbershop - Compute: CPU-Only

**Blender 2.92**

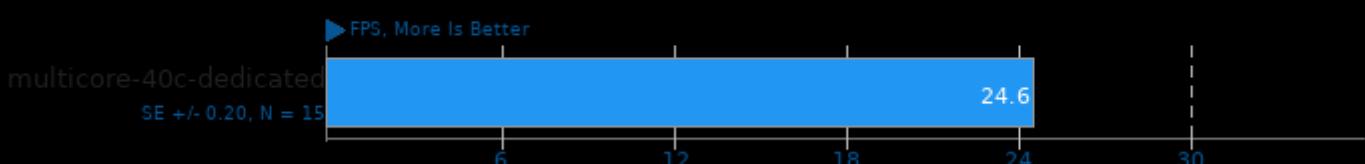
Blend File: Pabellon Barcelona - Compute: CPU-Only

**Xsbench 2017-07-06**

1. (CC) gcc options: -std=gnu99 -fopenmp -O3 -lm

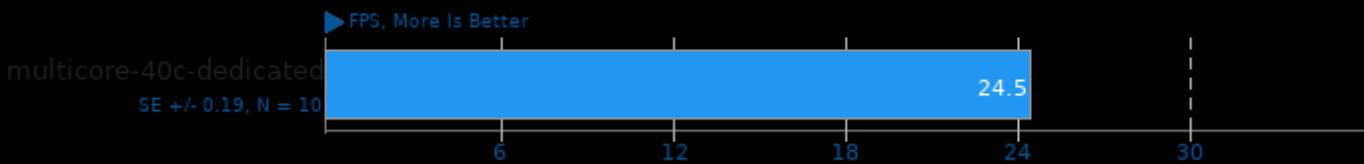
**NeatBench 5**

Acceleration: All



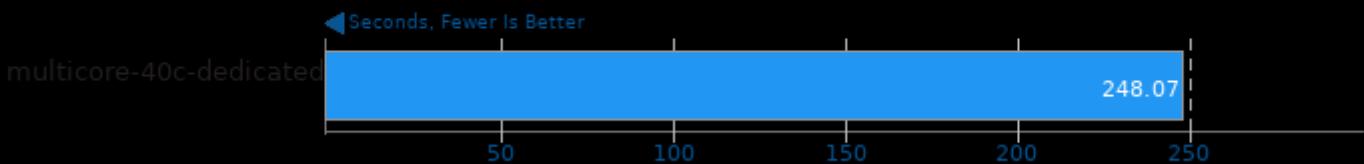
## NeatBench 5

Acceleration: CPU



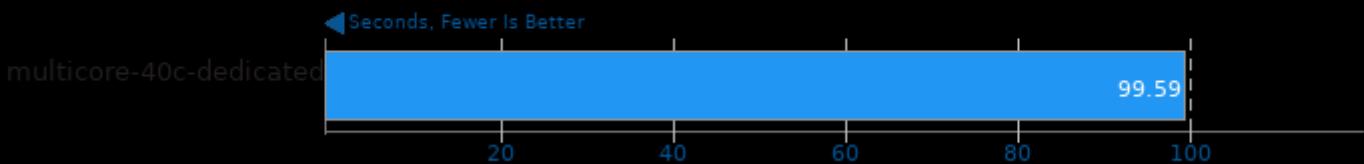
## Appleseed 2.0 Beta

Scene: Emily



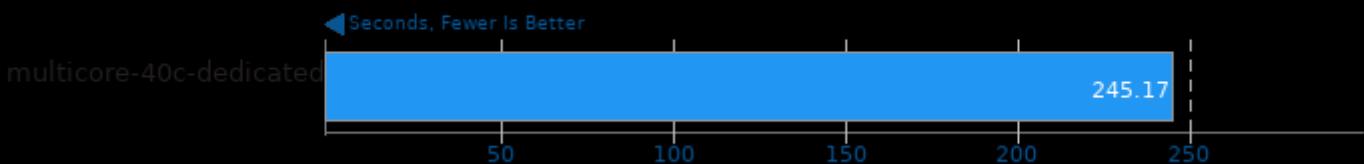
## Appleseed 2.0 Beta

Scene: Disney Material



## Appleseed 2.0 Beta

Scene: Material Tester



This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 02:16.