



www.phoronix-test-suite.com

core-i7-10700t-pts-102-test-run-onlogic

Intel Core i7-10700T testing with a Logic Supply RXM-181 (Z01-0002A026 BIOS) and Intel UHD 630 3GB on Ubuntu 20.10 via the Phoronix Test Suite.

Automated Executive Summary

Run 2 had the most wins, coming in first place for 35% of the tests.

Based on the geometric mean of all complete results, the fastest (Run 2) was 1.026x the speed of the slowest (Run 3). Run 1a was 0.995x the speed of Run 2, Run 1b was 0.998x the speed of Run 1a, Run 1 was 0.995x the speed of Run 1b, Run 3 was 0.987x the speed of Run 1.

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

DDrakeNetwork (Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: Multeasymap - Total Frame Time) at 6.747x

DDrakeNetwork (Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: RaiNyMore2 - Total Frame Time) at 4.081x

Redis (Test: LPOP) at 1.66x

VKMark (Resolution: 1920 x 1080) at 1.235x

LevelDB (Benchmark: Hot Read) at 1.164x

yquake2 (Renderer: OpenGL 3.x - Resolution: 1920 x 1080) at 1.137x

GraphicsMagick (Operation: Rotate) at 1.125x

yquake2 (Renderer: OpenGL 1.x - Resolution: 1920 x 1080) at 1.108x

DDrakeNetwork (Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: Multeasymap) at 1.105x

DDrakeNetwork (Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: RaiNyMore2) at 1.071x.

Test Systems:

Run 1

Processor: Intel Core i7-10700T @ 4.50GHz (8 Cores / 16 Threads), Motherboard: Logic Supply RXM-181 (Z01-0002A026 BIOS), Chipset: Intel Comet Lake PCH, Memory: 32GB, Disk: 256GB TS256GMTS800, Graphics: i915drmfb (1200MHz), Audio: Realtek ALC233, Monitor: DELL P2415Q, Network: Intel I219-LM + Intel I210

OS: Ubuntu 20.10, Kernel: 5.8.0-34-generic (x86_64), Desktop: GNOME Shell 3.38.1, Display Server: X Server 1.20.9, Display Driver: modesetting 1.20.9, Vulkan: 1.2.145, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 1920x1080

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++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/us r,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

Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw / Block Size: 4096

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xc8 - Thermald 2.3

Python Notes: Python 3.8.6

Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbs: Not affected + tsx_async_abort: Not affected

Run 1a

Run 1b

Run 2

Run 3

Processor: Intel Core i7-10700T @ 4.50GHz (8 Cores / 16 Threads), Motherboard: Logic Supply RXM-181 (Z01-0002A026 BIOS), Chipset: Intel Comet Lake PCH, Memory: 32GB, Disk: 256GB TS256GMTS800, Graphics: Intel UHD 630 3GB (1200MHz), Audio: Realtek ALC233, Monitor: DELL P2415Q, Network: Intel I219-LM + Intel I210

OS: Ubuntu 20.10, Kernel: 5.8.0-34-generic (x86_64), Desktop: GNOME Shell 3.38.1, Display Server: X Server 1.20.9, Display Driver: modesetting 1.20.9, OpenGL: 4.6 Mesa 20.2.1, Vulkan: 1.2.145, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 1920x1080

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++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug

```
--enable-libstdcxx-time=yes          --enable-multiarch          --enable-multilib          --enable-nls          --enable-objc-gc=auto
--enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/us
r,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
```

Disk Notes: MQ-DEADLINE / errors=remount-ro,relatime,rw / Block Size: 4096

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xe0 - Thermald 2.3

Python Notes: Python 3.8.6

Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	Run 1	Run 1a	Run 1b	Run 2	Run 3
LevelDB - Hot Read (us/Op)	9.436	8.109	8.405	8.172	8.319
Normalized	85.94%	100%	96.48%	99.23%	97.48%
Standard Deviation	5.3%	2.1%	2.1%	0.9%	1.5%
LevelDB - Fill Sync (MB/s)	0.3	0.3	0.3	0.3	0.3
Standard Deviation	0%	0%	0%	0%	0%
LevelDB - Fill Sync (us/Op)	5987	5950	5919	5921	5947
Normalized	98.87%	99.49%	100%	99.97%	99.54%
Standard Deviation	0.1%	0.1%	0.1%	0.1%	0.1%
LevelDB - Overwrite (MB/s)	33.3	33.8	33.8	32.4	32.9
Normalized	98.52%	100%	100%	95.86%	97.34%
Standard Deviation	1.8%	1.2%	0.8%	1.7%	3.4%
LevelDB - Overwrite (us/Op)	53.059	52.388	52.359	54.648	53.814
Normalized	98.68%	99.94%	100%	95.81%	97.3%
Standard Deviation	1.8%	1.1%	0.9%	1.7%	3.4%
LevelDB - Rand Fill (MB/s)	33.6	34.0	33.6	33.8	34.0
Normalized	98.82%	100%	98.82%	99.41%	100%
Standard Deviation	3.2%	0.6%	0.6%	0.7%	0.3%
LevelDB - Rand Fill (us/Op)	52.748	52.052	52.561	52.284	52.011
Normalized	98.6%	99.92%	98.95%	99.48%	100%
Standard Deviation	3.3%	0.6%	0.7%	0.6%	0.2%
LevelDB - Rand Read (us/Op)	9.419	9.491	9.435	9.236	9.165
Normalized	97.3%	96.57%	97.14%	99.23%	100%
Standard Deviation	5.9%	5.3%	5.2%	5.9%	6.1%
LevelDB - Seek Rand (us/Op)	12.529	12.678	12.670	12.397	12.271
Normalized	97.94%	96.79%	96.85%	98.98%	100%
Standard Deviation	2.6%	3.8%	2.9%	2.9%	4.1%
LevelDB - Rand Delete (us/Op)	53.832	53.731	52.649	53.554	52.779
Normalized	97.8%	97.99%	100%	98.31%	99.75%
Standard Deviation	2.3%	1%	1.7%	2.3%	2.2%
LevelDB - Seq Fill (MB/s)	33.2	33.4	33.3	33.1	33.5
Normalized	99.1%	99.7%	99.4%	98.81%	100%
Standard Deviation	1.3%	0.5%	1.4%	1.6%	0.9%
LevelDB - Seq Fill (us/Op)	53.249	52.992	53.194	53.497	52.819
Normalized	99.19%	99.67%	99.3%	98.73%	100%
Standard Deviation	1.3%	0.5%	1.4%	1.5%	1%
Unpacking The Linux Kernel - linux-4.15.tar.xz (sec)	6.151	6.176	6.167	6.162	6.165
Normalized	100%	99.6%	99.74%	99.82%	99.77%
Standard Deviation	0.1%	0.1%	0.1%	0.4%	0.3%
VkFFT (Benchmark Score)	1537	1548	1549	1551	1549
Normalized	99.1%	99.81%	99.87%	100%	99.87%

	Standard Deviation	0.2%	0.1%	0.1%	0.4%	0.4%
Libplacebo - deband_heavy	Normalized	43.71			43.87	43.92
	Standard Deviation	99.52%			99.89%	100%
Libplacebo - polar_nocompute	Normalized	29.85			0%	0%
	Standard Deviation	0%			29.86	29.89
Libplacebo - hdr_peakdetect	Normalized	42527			99.9%	100%
	Standard Deviation	99.96%			0%	0.1%
Libplacebo - av1_grain_lap (FPS)	Normalized	0.7%			0.5%	0.3%
	Standard Deviation	668.73			668.59	670.21
Betsy GPU Compressor - ETC1 -	Normalized	10.958			99.76%	100%
	Standard Deviation	3.4%			3.5%	3.1%
Betsy GPU Compressor - ETC2	Highest (sec)	5.079			10.018	11.094
	Normalized	91.42%			100%	90.3%
	Standard Deviation	10.8%			19.2%	
VkResample - 2x - Double (ms)	RGB - Highest (sec)	903.087			901.967	901.519
	Normalized	99.83%			99.95%	100%
	Standard Deviation	0.5%			0.1%	0.1%
VkResample - 2x - Single (ms)	Normalized	389.255	388.402		386.871	389.579
	Standard Deviation	99.39%	99.61%		100%	99.3%
DDraceNetwork - 1920 x 1080 -	Standard Deviation	0%	0.2%		0.2%	0.4%
DDraceNetwork - 1920 x 1080 -	Normalized	116.62	117.08	118.10	124.88	116.70
Fullscreen - OpenGL 3.3 -	Default - RaiNyMore2 (FPS)					
	Normalized	93.39%	93.75%	94.57%	100%	93.45%
	Standard Deviation	0.1%	0.6%	2.3%	2.7%	0.8%
DDraceNetwork - 1920 x 1080 -	Normalized	244.18	226.76	227.64	250.59	228.29
Fullscreen - OpenGL 3.3 -	Default - Multeasymap (FPS)					
	Normalized	97.44%	90.49%	90.84%	100%	91.1%
	Standard Deviation	2.9%	0.7%	1.4%	0.8%	0.8%
Warsow - 1920 x 1080 (FPS)	Normalized	85.4	86.1	84.5	87.3	83.4
	Standard Deviation	97.82%	98.63%	96.79%	100%	95.53%
	Standard Deviation	2.1%	3.7%	3%	0.2%	0.2%
yquake2 - OpenGL 1.x - 1920 x 1080 (FPS)	Normalized	558.3	558.7	552.8	555.2	504.3
	Standard Deviation	0.5%	1.0%	1.2%	0.7%	0.7%
yquake2 - OpenGL 3.x - 1920 x 1080 (FPS)	Normalized	546.4	551.0	552.8	551.9	486.2
	Standard Deviation	1%	0.2%	0.4%	1.3%	0.1%
yquake2 - Software CPU - 1920 x 1080 (FPS)	Normalized	113.4	113.6	113.3	113.4	111.8
	Standard Deviation	99.82%	100%	99.74%	99.82%	98.42%
	Standard Deviation	0.2%	0.1%	0.4%	0.2%	0.3%

VKMark - 1920 x 1080 (VKMark Score)	1049	1057	1054	1060	858
Normalized	98.96%	99.72%	99.43%	100%	80.94%
Standard Deviation	0.6%	0.7%	0.6%	0.3%	0.4%
High Performance Conjugate Gradient (GFLOP/s)	3.90470	3.90675	3.90730	3.92001	3.99501
Normalized	97.74%	97.79%	97.8%	98.12%	100%
Standard Deviation	0.1%	0.2%	0.2%	0.3%	2.4%
HPC Challenge - G-HPL (GFLOPS)	40.53683	40.62000	40.72420	40.69313	
Normalized	99.54%	99.74%	100%	99.92%	
Standard Deviation	0%	0.4%	0.5%	0.2%	
HPC Challenge - G-Ffte	4.02728	4.03853	4.05229	4.06682	
Normalized	99.03%	99.3%	99.64%	100%	
Standard Deviation	0.2%	0.2%	0.3%	1.2%	
HPC Challenge - EP-DGEMM (GFLOPS)	6.63473	6.75763	6.69593	6.62256	
Normalized	98.18%	100%	99.09%	98%	
Standard Deviation	0.9%	2.4%	0.9%	1.5%	
HPC Challenge - G-Ptrans (GB/s)	2.30234	2.30452	2.31308	2.31049	
Normalized	99.54%	99.63%	100%	99.89%	
Standard Deviation	0.5%	0.4%	0.5%	0.3%	
HPC Challenge - EP-STREAM Triad (GB/s)	2.96243	2.95957	2.96778	3.01252	
Normalized	98.34%	98.24%	98.51%	100%	
Standard Deviation	0.1%	0.3%	0.1%	3.1%	
HPC Challenge - G-Rand Access (GUP/s)	0.02880	0.02847	0.02911	0.02908	
Normalized	98.94%	97.8%	100%	99.9%	
Standard Deviation	2.3%	1.5%	1.7%	1.8%	
HPC Challenge - R.R.L (usecs)	0.43492	0.40581	0.40689	0.40064	
Normalized	92.12%	98.73%	98.46%	100%	
Standard Deviation	11.1%	0.8%	0.4%	2.8%	
HPC Challenge - R.R.B (GB/s)	1.71010	1.74130	1.72080	1.74534	
Normalized	97.98%	99.77%	98.59%	100%	
Standard Deviation	1%	0.5%	1.2%	2.3%	
HPC Challenge - M.P.P.B (MB/s)	12715	13312	12960	12615	
Normalized	95.52%	100%	97.36%	94.77%	
Standard Deviation	0.8%	0.9%	0.4%	4.4%	
CLOMP - Static OMP Speedup (Speedup)	5.8	5.9	5.8	6.1	
Normalized	95.08%	96.72%	95.08%	100%	
Standard Deviation	1%	2.8%	1.7%	1.9%	
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	3.21755	3.22224	3.20420	3.21383	
Normalized	99.59%	99.44%	100%	99.7%	
Standard Deviation	0.3%	0.3%	0.4%	0.2%	
Timed HMMer Search - P.D.S (sec)	123.560	123.572	123.568	123.600	
Normalized	100%	99.99%	99.99%	99.97%	
Standard Deviation	0%	0.1%	0.1%	0.1%	

Timed MAFFT Alignment - M.S.A	10.264	10.173	10.205	10.120
- LSU RNA (sec)				
Normalized	98.6%	99.48%	99.17%	100%
Standard Deviation	1%	1.3%	0.8%	0.9%
LAMMPS Molecular Dynamics Simulator - Rhodopsin Protein (ns/day)	5.689	5.693	5.676	5.701
Normalized	99.79%	99.86%	99.56%	100%
Standard Deviation	0.2%	0.3%	0.4%	0.6%
WebP Image Encode - Default (Encode Time - sec)	1.738	1.744	1.740	1.747
Normalized	100%	99.66%	99.89%	99.48%
Standard Deviation	0.1%	0.3%	0%	0.6%
WebP Image Encode - Quality 100 (Encode Time - sec)	2.705	2.714	2.704	2.705
Normalized	99.96%	99.63%	100%	99.96%
Standard Deviation	0%	0.3%	0.1%	0.1%
WebP Image Encode - Q.1.L (Encode Time - sec)	20.022	20.068	19.880	19.662
Normalized	98.2%	97.98%	98.9%	100%
Standard Deviation	0.1%	0.1%	0%	0.6%
WebP Image Encode - Q.1.H.C (Encode Time - sec)	8.213	8.209	8.221	8.211
Normalized	99.95%	100%	99.85%	99.98%
Standard Deviation	0.2%	0.1%	0.2%	0%
WebP Image Encode - Q.1.L.H.C (Encode Time - sec)	41.851	41.048	41.428	41.133
Normalized	98.08%	100%	99.08%	99.79%
Standard Deviation	0%	0.1%	0.1%	0.2%
simdjson - Kostya (GB/s)	0.59	0.59	0.59	0.59
Standard Deviation	0%	0%	0%	0%
simdjson - LargeRand (GB/s)	0.38	0.38	0.38	0.38
Standard Deviation	0%	0%	0%	0%
simdjson - PartialTweets (GB/s)	0.65	0.65	0.65	0.65
Standard Deviation	0%	0.9%	0%	0.9%
simdjson - DistinctUserID (GB/s)	0.67	0.67	0.67	0.67
Standard Deviation	0%	0%	0%	0%
LZ4 Compression - 1 - Compression Speed (MB/s)	7737	7773	7643	7707
Normalized	99.54%	100%	98.33%	99.15%
Standard Deviation	0.2%	0.4%	0.2%	0.1%
LZ4 Compression - 1 - D.S	9725	9789	9640	9684
Normalized	99.35%	100%	98.48%	98.93%
Standard Deviation	0%	0.1%	0.7%	0.1%
LZ4 Compression - 3 - Compression Speed (MB/s)	43.65	44.35	43.99	44.47
Normalized	98.16%	99.73%	98.92%	100%
Standard Deviation	0%	0.6%	0%	0%
LZ4 Compression - 3 - D.S	9267	9332	9239	9309
Normalized	99.3%	100%	99%	99.75%
Standard Deviation	0%	0.1%	0.1%	0.1%

LZ4 Compression - 9 -	Compression Speed (MB/s)	42.51	43.50	43.02	43.48
Normalized		97.72%	100%	98.9%	99.95%
Standard Deviation		0.4%	0%	0%	0%
LZ4 Compression - 9 - D.S		9279	9348	9246	9313
Normalized		99.27%	100%	98.91%	99.63%
Standard Deviation		0%	0.1%	0%	0.1%
Zstd Compression - 3 (MB/s)		3303	3305	3301	3294
Normalized		99.95%	100%	99.88%	99.68%
Standard Deviation		0.5%	0.6%	0.7%	0.6%
Zstd Compression - 19 (MB/s)		34.2	34.1	34.1	34.0
Normalized		100%	99.71%	99.71%	99.42%
Standard Deviation		2.4%	2.3%	2.4%	2.4%
Crafty - Elapsed Time (Nodes/s)		7183004	7013746	6935579	7194187
Normalized		99.84%	97.49%	96.41%	100%
Standard Deviation		0.2%	0.3%	0.3%	0.2%
GraphicsMagick - Swirl (Iterations/min)		220	221	221	220
Normalized		99.55%	100%	100%	99.55%
Standard Deviation		2.3%	2.4%	2.5%	2.4%
GraphicsMagick - Rotate (Iterations/min)		686	772	688	761
Normalized		88.86%	100%	89.12%	98.58%
Standard Deviation			0.2%		
GraphicsMagick - Sharpen (Iterations/min)		75	74	75	74
Normalized		100%	98.67%	100%	98.67%
Standard Deviation		2.3%	2.3%	2.3%	2.3%
GraphicsMagick - Enhanced (Iterations/min)		119	119	119	119
Normalized					
Standard Deviation		1.5%	1.5%	1.5%	1%
GraphicsMagick - Resizing (Iterations/min)		573	570	571	570
Normalized		100%	99.48%	99.65%	99.48%
Standard Deviation		1.1%	1.5%	1.5%	1.2%
GraphicsMagick -		155	156	156	154
Noise-Gaussian (Iterations/min)					
Normalized		99.36%	100%	100%	98.72%
Standard Deviation		1.3%	1.3%	1.3%	2%
GraphicsMagick - HWB Color Space (Iterations/min)		775	776	769	775
Normalized		99.87%	100%	99.1%	99.87%
Standard Deviation		1.3%	1.2%	1.4%	0.9%
oneDNN - IP Shapes 1D - f32 -	CPU (ms)	6.57310	6.65251	6.75171	6.55662
Normalized		99.75%	98.56%	97.11%	100%
Standard Deviation		4.5%	5.8%	4.4%	4.9%
oneDNN - IP Shapes 3D - f32 -	CPU (ms)	8.61801	8.65721	8.66155	8.61730
Normalized		99.99%	99.54%	99.49%	100%
Standard Deviation		1.8%	1.6%	1.8%	2.2%

oneDNN - IP Shapes 1D - u8s8f32 - CPU (ms)	2.96456	2.94644	2.99227	2.98555
Normalized	99.39%	100%	98.47%	98.69%
Standard Deviation	4.2%	4.4%	4.2%	4.4%
oneDNN - IP Shapes 3D - u8s8f32 - CPU (ms)	2.53895	2.44305	2.39870	2.53159
Normalized	94.48%	98.18%	100%	94.75%
Standard Deviation	2.4%	2.3%	2.5%	2.4%
oneDNN - C.B.S.A - f32 - CPU (ms)	16.8167	16.8091	16.8788	16.8839
Normalized	99.95%	100%	99.59%	99.56%
Standard Deviation	0.1%	0.1%	0.1%	0.4%
oneDNN - D.B.s - f32 - CPU (ms)	9.14300	9.15406	9.06378	9.02724
Normalized	98.73%	98.61%	99.6%	100%
Standard Deviation	3.1%	1.8%	1.3%	2.4%
oneDNN - D.B.s - f32 - CPU (ms)	8.80723	9.05963	9.15911	9.10087
Normalized	100%	97.21%	96.16%	96.77%
Standard Deviation	1.4%	4.6%	2.8%	4.1%
oneDNN - C.B.S.A - u8s8f32 - CPU (ms)	14.9677	14.9719	15.2513	15.0793
Normalized	100%	99.97%	98.14%	99.26%
Standard Deviation	0.2%	0.1%	0.5%	0.1%
oneDNN - D.B.s - u8s8f32 - CPU (ms)	8.91866	8.96502	9.03343	9.02351
Normalized	100%	99.48%	98.73%	98.84%
Standard Deviation	2.4%	2.4%	2.4%	2.4%
oneDNN - D.B.s - u8s8f32 - CPU (ms)	4.20501	4.41264	4.26255	4.35330
Normalized	100%	95.29%	98.65%	96.59%
Standard Deviation	1.7%	3.7%	1.6%	4.3%
oneDNN - R.N.N.T - f32 - CPU (ms)	6687	6678	6712	6732
Normalized	99.86%	100%	99.49%	99.19%
Standard Deviation	0.1%	0.4%	0.2%	0.2%
oneDNN - R.N.N.I - f32 - CPU	3539	3516	3540	3564
Normalized	99.35%	100%	99.31%	98.64%
Standard Deviation	0.2%	0.1%	0.4%	0.4%
oneDNN - R.N.N.T - u8s8f32 - CPU (ms)	6723	6708	6710	6747
Normalized	99.78%	100%	99.97%	99.42%
Standard Deviation	0%	0.2%	0.3%	0.1%
oneDNN - R.N.N.I - u8s8f32 - CPU (ms)	3521	3530	3535	3569
Normalized	100%	99.72%	99.58%	98.66%
Standard Deviation	0.3%	0.4%	0.2%	0.5%
oneDNN - M.M.B.S.T - f32 - CPU (ms)	3.96535	3.87785	3.88208	3.86362
Normalized	97.43%	99.63%	99.52%	100%
Standard Deviation	1.6%	0.4%	0.5%	0.6%
oneDNN - R.N.N.T - bf16bf16bf16 - CPU (ms)	6727	6705	6724	6734
Normalized	99.67%	100%	99.72%	99.57%
Standard Deviation	0.3%	0.1%	0.5%	0.1%

oneDNN - R.N.N.I - bf16bf16bf16	3540	3526	3539	3567
- CPU (ms)				
Normalized	99.61%	100%	99.65%	98.85%
Standard Deviation	0.2%	0.3%	0.2%	0.2%
oneDNN - M.M.B.S.T - u8s8f32 -	4.25717	4.28975	4.27444	4.30114
- CPU (ms)				
Normalized	100%	99.24%	99.6%	98.98%
Standard Deviation	1.4%	0.1%	2.4%	0.3%
dav1d - Chimera 1080p (FPS)	554.36	555.38	542.62	544.85
- Normalized	99.82%	100%	97.7%	98.1%
- Standard Deviation	2.4%	2.3%	1%	0.1%
dav1d - Summer Nature 4K (FPS)	131.02	130.63	130.46	128.92
- Normalized	100%	99.7%	99.57%	98.4%
- Standard Deviation	2.4%	2.3%	2.3%	2.3%
dav1d - S.N.1 (FPS)	509.91	507.90	509.38	506.87
- Normalized	100%	99.61%	99.9%	99.4%
- Standard Deviation	0.9%	1.2%	1.7%	1.5%
dav1d - C.1.1.b (FPS)	87.72	87.51	87.69	87.52
- Normalized	100%	99.76%	99.97%	99.77%
- Standard Deviation	0.7%	0.9%	0.8%	0.6%
Embree - Pathtracer - Crown	6.3297	6.3174	6.2889	6.3243
- Normalized	100%	99.81%	99.36%	99.91%
- Standard Deviation	2.5%	2.3%	2.3%	2.4%
Embree - Pathtracer ISPC -	7.3215	7.3397	7.3367	7.2718
- Crown (FPS)				
Normalized	99.75%	100%	99.96%	99.07%
Standard Deviation	2.3%	0.7%	1.4%	2.1%
Embree - Pathtracer - Asian	7.8910	7.7932	7.7536	7.8463
- Dragon (FPS)				
Normalized	100%	98.76%	98.26%	99.43%
Standard Deviation	1.5%	2.5%	1.9%	2.3%
Embree - Pathtracer - Asian	7.3894	7.3239	7.3454	7.3004
- Dragon Obj (FPS)				
Normalized	100%	99.11%	99.4%	98.8%
Standard Deviation	0.6%	1.4%	1.4%	1.2%
Embree - Pathtracer ISPC - Asian	9.4099	9.4586	9.3651	9.3850
- Dragon (FPS)				
Normalized	99.49%	100%	99.01%	99.22%
Standard Deviation	2.5%	0.6%	0.8%	2.5%
Embree - Pathtracer ISPC - Asian	8.4302	8.2867	8.4226	8.4439
- Dragon Obj (FPS)				
Normalized	99.84%	98.14%	99.75%	100%
Standard Deviation	1.6%	2.4%	0.7%	1.2%
rav1e - 1 (FPS)	0.318	0.317	0.318	0.319
- Normalized	99.69%	99.37%	99.69%	100%
- Standard Deviation	0.9%	0.5%	0.5%	1.1%
rav1e - 5 (FPS)	0.971	0.970	0.973	0.969
- Normalized	99.79%	99.69%	100%	99.59%
- Standard Deviation	0.5%	0.7%	0.7%	0.6%
rav1e - 6 (FPS)	1.309	1.308	1.314	1.310
- Normalized	99.62%	99.54%	100%	99.7%
- Standard Deviation	1.1%	0.7%	0.8%	0.9%
rav1e - 10 (FPS)	3.058	3.057	3.057	3.060
- Normalized	99.93%	99.9%	99.9%	100%

	Standard Deviation	0.3%	0.4%	0.2%	0.2%
Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec)		217569	217896	216627	218109
	Normalized	99.75%	99.9%	99.32%	100%
	Standard Deviation	2.3%	2.4%	2.5%	2.3%
Stockfish - Total Time (Nodes/s)		10137537	10100945	10178167	10150102
	Normalized	99.6%	99.24%	100%	99.72%
	Standard Deviation	1.8%	2%	2.7%	3.4%
asmFish - 1.H.M.2.D (Nodes/s)		16569655	16349428	16310305	16562018
	Normalized	100%	98.67%	98.43%	99.95%
	Standard Deviation	1.6%	1.7%	0.8%	0.5%
libavif avifenc - 0 (sec)		150.334	149.988	149.818	150.649
	Normalized	99.66%	99.89%	100%	99.45%
	Standard Deviation	0.2%	0.1%	0.7%	0.5%
libavif avifenc - 2 (sec)		88.607	88.151	88.032	88.354
	Normalized	99.35%	99.87%	100%	99.64%
	Standard Deviation	1%	0.8%	0.7%	1.2%
libavif avifenc - 8 (sec)		6.276	6.359	6.280	6.307
	Normalized	100%	98.69%	99.94%	99.51%
	Standard Deviation	0%	1.6%	0.2%	0.1%
libavif avifenc - 10 (sec)		5.950	5.958	6.032	6.020
	Normalized	100%	99.87%	98.64%	98.84%
	Standard Deviation	0.3%	0.3%	0.5%	0.5%
Timed FFmpeg Compilation - Time To Compile (sec)		94.838	95.000	94.490	94.656
	Normalized	99.63%	99.46%	100%	99.82%
	Standard Deviation	1.2%	1.5%	1.4%	1.5%
Build2 - Time To Compile (sec)		251.468	253.213	252.132	253.186
	Normalized	100%	99.31%	99.74%	99.32%
	Standard Deviation	0.5%	1%	0.6%	0.2%
Numpy Benchmark (Score)		322.78	332.74	334.78	326.32
	Normalized	96.42%	99.39%	100%	97.47%
	Standard Deviation	0.4%	0.2%	0.1%	0.1%
Timed Eigen Compilation - Time To Compile (sec)		92.920	91.202	90.882	92.964
	Normalized	97.81%	99.65%	100%	97.76%
	Standard Deviation	0%	0%	0%	0.1%
DeepSpeech - CPU (sec)		79.90300	80.07005	79.93210	80.38183
	Normalized	100%	99.79%	99.96%	99.4%
	Standard Deviation	0.7%	0.8%	0.7%	0.8%
Monkey Audio Encoding - WAV To APE (sec)		13.784	13.753	13.767	13.805
	Normalized	99.78%	100%	99.9%	99.62%
	Standard Deviation	0.4%	0.5%	0.4%	0.5%
Opus Codec Encoding - WAV To Opus Encode (sec)		10.234	10.214	10.211	10.235
	Normalized	100%	99.79%	99.96%	99.4%
	Standard Deviation	0.7%	0.8%	0.7%	0.8%
eSpeak-NG Speech Engine - T.T.S.S (sec)		35.849	35.969	36.140	36.124
	Normalized	99.78%	99.97%	100%	99.77%
	Standard Deviation	0.3%	0.4%	0.3%	0.4%
RNNNoise (sec)		28.862	28.920	28.858	28.891
	Normalized	99.99%	99.79%	100%	99.89%

	Standard Deviation	0.1%	0.2%	0.3%	0.1%
Node.js V8 Web Tooling		10.29	10.28	10.35	10.10
Benchmark (runs/s)					
Normalized	99.42%	99.32%	100%	97.58%	
Standard Deviation	1.2%	1.2%	0.7%	1.3%	
Cryptsetup - PBKDF2-sha512		1502976	1502976	1503694	1504413
(Iterations/sec)					
Normalized	99.9%	99.9%	99.95%	100%	
Standard Deviation	0.1%	0.1%	0.1%		
Cryptsetup - PBKDF2-whirlpool		633963	633198	633709	633709
(Iterations/sec)					
Normalized	100%	99.88%	99.96%	99.96%	
Standard Deviation	0.1%	0.1%	0.1%	0.1%	
Cryptsetup - A.X.2.E (MiB/s)		3188	3188	3188	3172
(MiB/s)					
Normalized	99.97%	100%	99.99%	99.49%	
Standard Deviation	0.3%	0.3%	0.4%	0.8%	
Cryptsetup - A.X.2.D (MiB/s)		3199	3191	3198	3194
(MiB/s)					
Normalized	100%	99.72%	99.95%	99.82%	
Standard Deviation	0.3%	0.5%	0.1%	0.6%	
Cryptsetup - S.X.2.E (MiB/s)		696.2	696.3	696.3	696.9
(MiB/s)					
Normalized	99.9%	99.91%	99.91%	100%	
Standard Deviation	0.1%	0.1%	0%	0.2%	
Cryptsetup - S.X.2.D (MiB/s)		682.1	682.1	682.6	680.6
(MiB/s)					
Normalized	99.93%	99.93%	100%	99.71%	
Standard Deviation	0.1%	0.1%	0.1%	0.1%	
Cryptsetup - T.X.2.E (MiB/s)		382.8	382.4	382.5	382.7
(MiB/s)					
Normalized	100%	99.9%	99.92%	99.97%	
Standard Deviation	0.1%	0.1%	0%	0.1%	
Cryptsetup - T.X.2.D (MiB/s)		383.6	383.4	383.4	383.5
(MiB/s)					
Normalized	100%	99.95%	99.95%	99.97%	
Standard Deviation	0%	0.1%	0.1%	0.1%	
Cryptsetup - A.X.5.E (MiB/s)		2646	2646	2648	2645
(MiB/s)					
Normalized	99.92%	99.9%	100%	99.87%	
Standard Deviation	0.3%	0.4%	0.1%	0.5%	
Cryptsetup - A.X.5.D (MiB/s)		2652	2646	2650	2651
(MiB/s)					
Normalized	100%	99.78%	99.91%	99.95%	
Standard Deviation	0.3%	0.4%	0.2%	0.5%	
Cryptsetup - S.X.5.E (MiB/s)		697.1	696.2	696.5	695.8
(MiB/s)					
Normalized	100%	99.87%	99.91%	99.81%	
Standard Deviation	0.1%	0.1%	0.1%	0.1%	
Cryptsetup - S.X.5.D (MiB/s)		681.8	681.0	682.4	680.0
(MiB/s)					
Normalized	99.91%	99.79%	100%	99.65%	
Standard Deviation	0.2%	0.1%	0.1%	0%	
Cryptsetup - T.X.5.E (MiB/s)		382.7	382.4	382.4	382.8
(MiB/s)					
Normalized	99.97%	99.9%	99.9%	100%	
Standard Deviation	0.1%	0.1%	0.1%	0.1%	
Cryptsetup - T.X.5.D (MiB/s)		383.5	383.2	383.4	383.4
(MiB/s)					
Normalized	100%	99.92%	99.97%	99.97%	
Standard Deviation	0%	0.1%	0.1%	0.1%	
GROMACS - Water Benchmark		0.650	0.645	0.646	0.644
(Ns/Day)					
Normalized	100%	99.23%	99.38%	99.08%	
Standard Deviation	0.8%	1%	1.6%	1.5%	
TensorFlow Lite - SqueezeNet		355273	354452	354514	355708
(Normalized)					
Normalized	99.77%	100%	99.98%	99.65%	

Standard Deviation	1.3%	1.2%	1.3%	1.3%
TensorFlow Lite - Inception V4	5207003	5203603	5178367	5198767
Normalized	99.45%	99.52%	100%	99.61%
Standard Deviation	0.3%	0.4%	0.4%	0.4%
TensorFlow Lite - NASNet Mobile	297566	298690	298821	298804
(us)				
Normalized	100%	99.62%	99.58%	99.59%
Standard Deviation	1.1%	1.1%	1.8%	1.3%
TensorFlow Lite - Mobilenet	237589	237681	238039	238421
Float (us)				
Normalized	100%	99.96%	99.81%	99.65%
Standard Deviation	1.3%	1.2%	1.1%	1.3%
TensorFlow Lite - Mobilenet	236677	237181	236632	236806
Quant (us)				
Normalized	99.98%	99.77%	100%	99.93%
Standard Deviation	1.2%	1.1%	1.1%	1.1%
TensorFlow Lite - I.R.V (us)	4681217	4695160	4672843	4688170
Normalized	99.82%	99.52%	100%	99.67%
Standard Deviation	0.4%	0.4%	0.4%	0.6%
ASTC Encoder - Fast (sec)	6.75	6.78	6.78	6.77
Normalized	100%	99.56%	99.56%	99.7%
Standard Deviation	0.1%	0.4%	0.5%	0.4%
ASTC Encoder - Medium (sec)	6.82	6.87	6.78	6.88
Normalized	99.41%	98.69%	100%	98.55%
Standard Deviation	4.3%	4.3%	4.1%	4.3%
ASTC Encoder - Thorough (sec)	51.86	52.32	51.93	52.36
Normalized	100%	99.12%	99.87%	99.05%
Standard Deviation	1.6%	1.3%	1.7%	1.7%
ASTC Encoder - Exhaustive	433.56	434.61	431.10	436.00
Normalized	99.43%	99.19%	100%	98.88%
Standard Deviation	0.5%	0.2%	0.3%	0.2%
Basis Universal - ETC1S (sec)	63.930	63.991	63.775	63.968
Normalized	99.76%	99.66%	100%	99.7%
Standard Deviation	1%	0.5%	1%	0.5%
Basis Universal - UASTC Level 0 (sec)	9.252	9.260	9.262	9.258
Normalized	100%	99.91%	99.89%	99.94%
Standard Deviation	0.3%	0.2%	0.3%	0.2%
Basis Universal - UASTC Level 2 (sec)	54.881	54.842	54.717	55.204
Normalized	100%	99.77%	100%	99.12%
Standard Deviation	2%	2.1%	2.3%	2.1%
Basis Universal - UASTC Level 3 (sec)	108.379	108.338	108.075	108.808
Normalized	99.7%	99.77%	100%	99.12%
Standard Deviation	2%	2.1%	2.3%	2.1%
Basis Universal - U.L.2.R.P.P	99.72%	99.76%	100%	99.33%
Normalized	0.6%	0.6%	0.6%	0.4%
Standard Deviation	916.619	918.047	919.831	
SQLite Speedtest - Timed Time - Size 1,000 (sec)	100%	99.84%	99.65%	
Normalized	0.1%	0.3%	0.3%	0.3%
Standard Deviation	63.367	62.748	63.228	
Darktable - Boat - CPU-only (sec)	99.02%	100%	99.24%	
Normalized	0.3%	0.2%	0.2%	0.2%
Standard Deviation	14.662	14.677	14.729	

	Normalized	100%	99.9%	99.55%
	Standard Deviation	1.8%	1.6%	1.8%
Darktable - Masskrug - CPU-only (sec)		5.825	5.809	5.869
	Normalized	99.73%	100%	98.98%
	Standard Deviation	2.5%	2.5%	2.5%
Darktable - Server Rack - CPU-only (sec)		0.188	0.188	0.188
	Standard Deviation	0%	0%	0%
Darktable - Server Room - CPU-only (sec)		4.393	4.387	4.398
	Normalized	99.86%	100%	99.75%
	Standard Deviation	0.2%	0.1%	0.1%
RawTherapee - T.B.T (sec)		79.718	79.883	79.841
	Normalized	100%	99.79%	99.85%
	Standard Deviation	1%	0.9%	0.8%
librsvg - SVG Files To PNG (sec)		21.234	21.177	21.311
	Normalized	99.73%	100%	99.37%
	Standard Deviation	0.6%	0.5%	0.2%
Redis - LPOP (Reqs/sec)		2708105	1651323	1631529
	Normalized	100%	60.98%	60.25%
	Standard Deviation	0.1%	1%	1.1%
Redis - SADD (Reqs/sec)		2122214	2163185	2120355
	Normalized	98.11%	100%	98.02%
	Standard Deviation	1.3%	0.5%	1.1%
Redis - LPUSH (Reqs/sec)		1628075	1631778	1622768
	Normalized	99.77%	100%	99.45%
	Standard Deviation	0.8%	3.1%	1.1%
Redis - GET (Reqs/sec)		2508965	2423778	2400719
	Normalized	100%	96.6%	95.69%
	Standard Deviation	2.2%	1%	1.9%
Redis - SET (Reqs/sec)		1877701	1909663	1896604
	Normalized	98.33%	100%	99.32%
	Standard Deviation	1.2%	0.3%	0.6%
Mobile Neural Network - SqueezeNetV1.0 (ms)		9.110	9.012	9.159
	Normalized	98.92%	100%	98.4%
	Standard Deviation	8.7%	10.9%	8.8%
Mobile Neural Network - resnet-v2-50 (ms)		56.181	56.065	56.425
	Normalized	99.79%	100%	99.36%
	Standard Deviation	0.8%	0.6%	0.6%
Mobile Neural Network - MobileNetV2_224 (ms)		4.336	4.278	4.358
	Normalized	98.66%	100%	98.16%
	Standard Deviation	7.2%	6.8%	7.3%
Mobile Neural Network - mobilenet-v1-1.0 (ms)		10.249	10.230	10.280
	Normalized	99.81%	100%	99.51%
	Standard Deviation	0.4%	0.3%	0.5%
Mobile Neural Network - inception-v3 (ms)		60.247	59.839	60.445
	Normalized	99.32%	100%	99%
	Standard Deviation	0.9%	0.9%	1%

NCNN - CPU - mobilenet (ms)	25.80	25.89	25.88
Normalized	100%	99.65%	99.69%
Standard Deviation	0.1%	0.9%	0.3%
NCNN - CPU-v2-v2 - mobilenet-v2 (ms)	6.40	6.42	6.46
Normalized	100%	99.69%	99.07%
Standard Deviation	3%	2.7%	2.6%
NCNN - CPU-v3-v3 - mobilenet-v3 (ms)	5.81	5.81	5.85
Normalized	100%	100%	99.32%
Standard Deviation	12.2%	11.8%	11.9%
NCNN - CPU - shufflenet-v2 (ms)	7.42	7.37	7.43
Normalized	99.33%	100%	99.19%
Standard Deviation	15.3%	15.7%	16.1%
NCNN - CPU - mnasnet (ms)	6.33	5.86	5.91
Normalized	92.58%	100%	99.15%
Standard Deviation	1.2%	13.4%	13.9%
NCNN - CPU - efficientnet-b0	9.61	8.96	8.97
Normalized	93.24%	100%	99.89%
Standard Deviation	0.2%	11.4%	11.9%
NCNN - CPU - blazeface (ms)	2.66	2.46	2.48
Normalized	92.48%	100%	99.19%
Standard Deviation	0.4%	12.7%	11.6%
NCNN - CPU - googlenet (ms)	19.16	19.17	19.20
Normalized	100%	99.95%	99.79%
Standard Deviation	0.2%	0%	0.3%
NCNN - CPU - vgg16 (ms)	66.85	66.72	66.90
Normalized	99.81%	100%	99.73%
Standard Deviation	0.1%	0%	0.2%
NCNN - CPU - resnet18 (ms)	18.12	18.15	18.18
Normalized	100%	99.83%	99.67%
Standard Deviation	0.1%	0.1%	0.2%
NCNN - CPU - alexnet (ms)	15.20	15.15	15.18
Normalized	99.67%	100%	99.8%
Standard Deviation	0.1%	0.3%	0.2%
NCNN - CPU - resnet50 (ms)	36.15	36.08	36.20
Normalized	99.81%	100%	99.67%
Standard Deviation	0.1%	0.1%	0.2%
NCNN - CPU - yolov4-tiny (ms)	35.17	35.07	34.59
Normalized	98.35%	98.63%	100%
Standard Deviation	3%	2%	0.2%
NCNN - CPU - squeezenet_ssd (ms)	26.76	26.91	26.82
Normalized	100%	99.44%	99.78%
Standard Deviation	0.2%	1.1%	0.1%
NCNN - CPU - regnety_400m	18.78	17.86	17.80
Normalized	94.78%	99.66%	100%
Standard Deviation	0.4%	9.5%	10.5%
NCNN - Vulkan GPU - mobilenet (ms)	25.76	25.71	25.87
Normalized	99.81%	100%	99.38%
Standard Deviation	0.2%	0.2%	0.2%

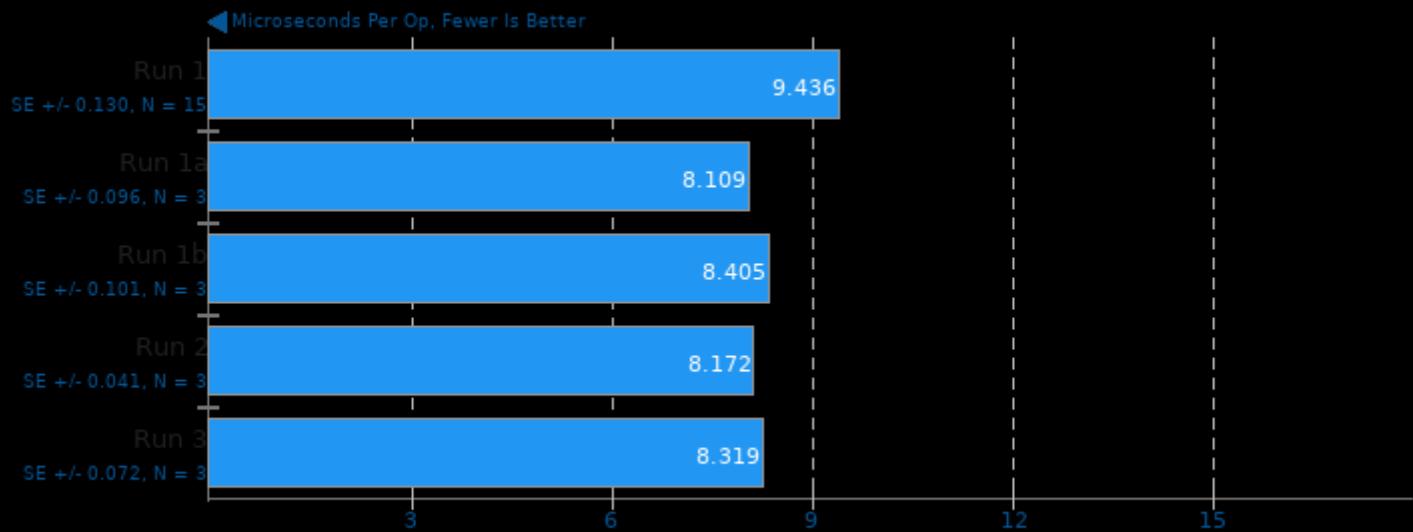
NCNN - Vulkan GPU-v2-v2 - mobilenet-v2 (ms)	6.39	6.36	6.39
Normalized	99.53%	100%	99.53%
Standard Deviation	2.7%	2.2%	3.5%
NCNN - Vulkan GPU-v3-v3 - mobilenet-v3 (ms)	5.85	5.86	5.95
Normalized	100%	99.83%	98.32%
Standard Deviation	12.2%	12.3%	13.5%
NCNN - Vulkan GPU - shufflenet-v2 (ms)	7.40	7.40	8.09
Normalized	100%	100%	91.47%
Standard Deviation	15.1%	15.7%	0.2%
NCNN - Vulkan GPU - mnasnet (ms)	5.95	5.62	5.92
Normalized	94.45%	100%	94.93%
Standard Deviation	11.3%	17.3%	12.8%
NCNN - Vulkan GPU - efficientnet-b0 (ms)	9.61	8.95	8.99
Normalized	93.13%	100%	99.56%
Standard Deviation	0.6%	11.8%	11.8%
NCNN - Vulkan GPU - blazeface (ms)	2.66	2.46	2.47
Normalized	92.48%	100%	99.6%
Standard Deviation	0.4%	13%	12.9%
NCNN - Vulkan GPU - googlenet (ms)	19.12	18.07	18.07
Normalized	94.51%	100%	100%
Standard Deviation	0.2%	10.6%	11.4%
NCNN - Vulkan GPU - vgg16 (ms)	66.80	66.75	67.14
Normalized	99.93%	100%	99.42%
Standard Deviation	0.2%	0.1%	0.6%
NCNN - Vulkan GPU - resnet18 (ms)	18.24	18.18	18.20
Normalized	99.67%	100%	99.89%
Standard Deviation	0.7%	0.4%	0.4%
NCNN - Vulkan GPU - alexnet	15.16	15.17	15.22
Normalized	100%	99.93%	99.61%
Standard Deviation	0.2%	0.2%	0.2%
NCNN - Vulkan GPU - resnet50 (ms)	36.08	36.27	36.49
Normalized	100%	99.48%	98.88%
Standard Deviation	0%	0.5%	1.8%
NCNN - Vulkan GPU - yolov4-tiny (ms)	34.60	34.60	35.10
Normalized	100%	100%	98.58%
Standard Deviation	0.2%	0.2%	1.1%
NCNN - Vulkan GPU - squeezenet_ssdl (ms)	26.80	26.74	26.85
Normalized	99.78%	100%	99.59%
Standard Deviation	0.2%	0.1%	0.2%
NCNN - Vulkan GPU - regnety_400m (ms)	18.76	17.98	18.00
Normalized	95.84%	100%	99.89%

	Standard Deviation	8.8%	10.7%
TNN - CPU - MobileNet v2 (ms)	0.6%	368.684	367.423
Normalized	99.66%	100%	99.76%
Standard Deviation	0.7%	0.2%	0.4%
TNN - CPU - SqueezeNet v1.1 (ms)	359.682	359.571	359.687
Normalized	99.97%	100%	99.97%
Standard Deviation	0%	0.1%	0.1%
IndigoBench - CPU - Bedroom (M samples/s)	0.966	0.962	0.967
Normalized	99.9%	99.48%	100%
Standard Deviation	0.2%	0.4%	0.4%
IndigoBench - CPU - Supercar (M samples/s)	2.219	2.216	2.221
Normalized	99.91%	99.77%	100%
Standard Deviation	0.4%	0.4%	0.4%
Blender - BMW27 - CPU-Only (sec)	302.71	303.08	303.94
Normalized	100%	99.88%	99.6%
Standard Deviation	0.7%	0.2%	0.6%
Blender - Classroom - CPU-Only (sec)	943.69	939.24	950.06
Normalized	99.53%	100%	98.86%
Standard Deviation	0.2%	0.6%	0.2%
Blender - Fishy Cat - CPU-Only (sec)	426.25	426.65	427.15
Normalized	100%	99.91%	99.79%
Standard Deviation	0.1%	0.5%	0.5%
Blender - Barbershop - CPU-Only (sec)	1213	1215	1222
Normalized	100%	99.88%	99.3%
Standard Deviation	0.3%	0.3%	0.2%
Blender - Pabellon Barcelona - CPU-Only (sec)	1041	1035	1040
Normalized	99.41%	100%	99.45%
Standard Deviation	0.3%	0.3%	0.1%
PyBench - T.F.A.T.T	1076	1075	1074
Normalized	99.81%	99.91%	100%
Standard Deviation	0.4%	0.2%	0.2%
Appleseed - Emily (sec)	753.474413	749.301457	754.581296
Normalized	99.45%	100%	99.3%
Appleseed - Disney Material	472.093801	471.073994	472.282894
Normalized	99.78%	100%	99.74%
Appleseed - Material Tester (sec)	424.262103	426.116039	423.978198
Normalized	99.93%	99.5%	100%
AI Benchmark Alpha - D.I.S (Score)	741	750	746
Normalized	98.8%	100%	99.47%
AI Benchmark Alpha - D.T.S (Score)	851	856	852
Normalized	99.42%	100%	99.53%

AI Benchmark Alpha - Device AI Score (Score)	1592	1606	1598
Normalized	99.13%	100%	99.5%
PHPBench - P.B.S (Score)	655005	651255	654738
Normalized	100%	99.43%	99.96%
Standard Deviation	0.2%	0.3%	0.1%
WavPack Audio Encoding - WAV To WavPack (sec)	17.581	17.544	17.556
Normalized	99.79%	100%	99.93%
Standard Deviation	0.4%	0.1%	0%
Unpacking Firefox - firefox-84.0.source.tar.xz (sec)	20.704	20.732	20.729
Normalized	100%	99.86%	99.88%
Standard Deviation	0.4%	0.3%	0.6%
BRL-CAD - V.P.M (VGR Performance Metric)	66088	66500	66208
Normalized	99.38%	100%	99.56%

LevelDB 1.22

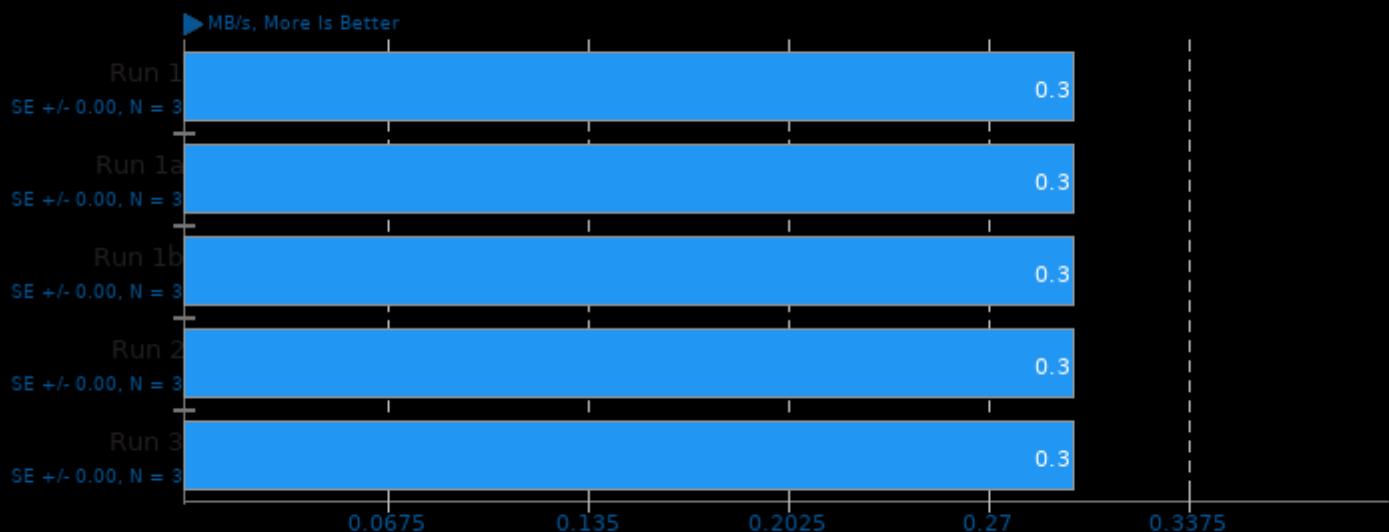
Benchmark: Hot Read



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

LevelDB 1.22

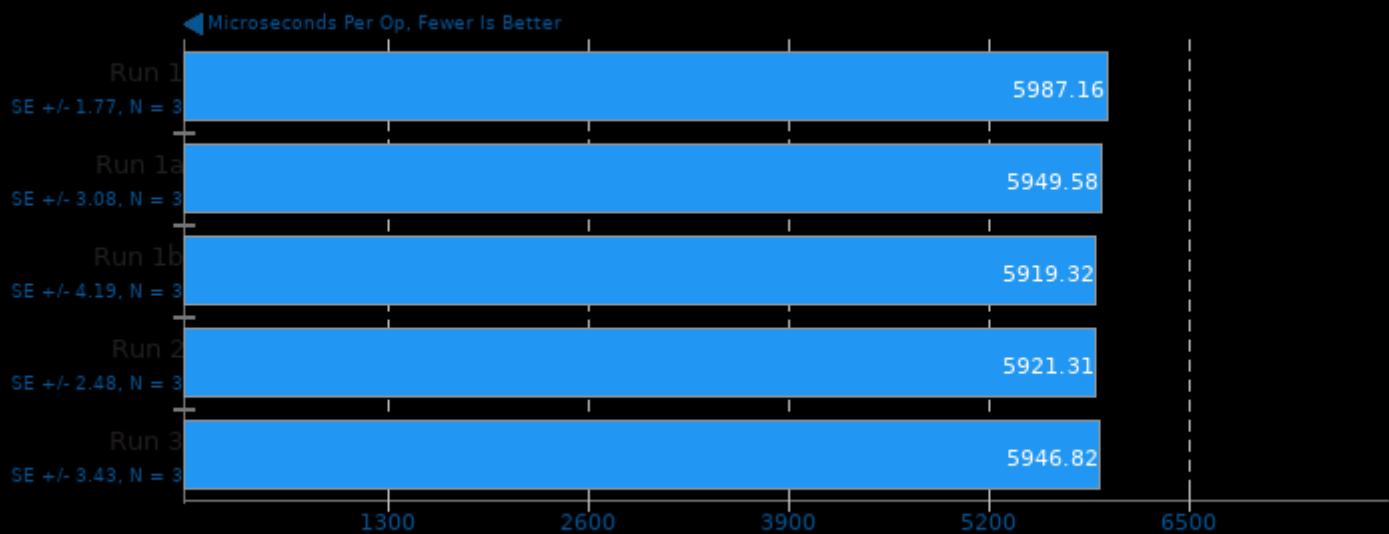
Benchmark: Fill Sync



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

LevelDB 1.22

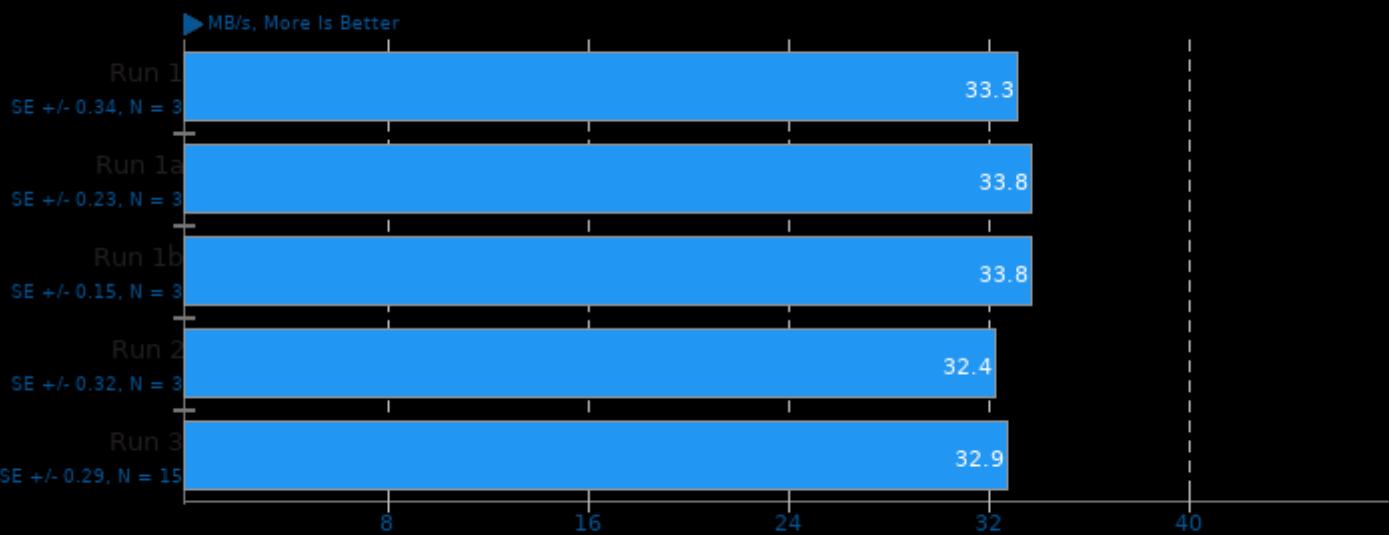
Benchmark: Fill Sync



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

LevelDB 1.22

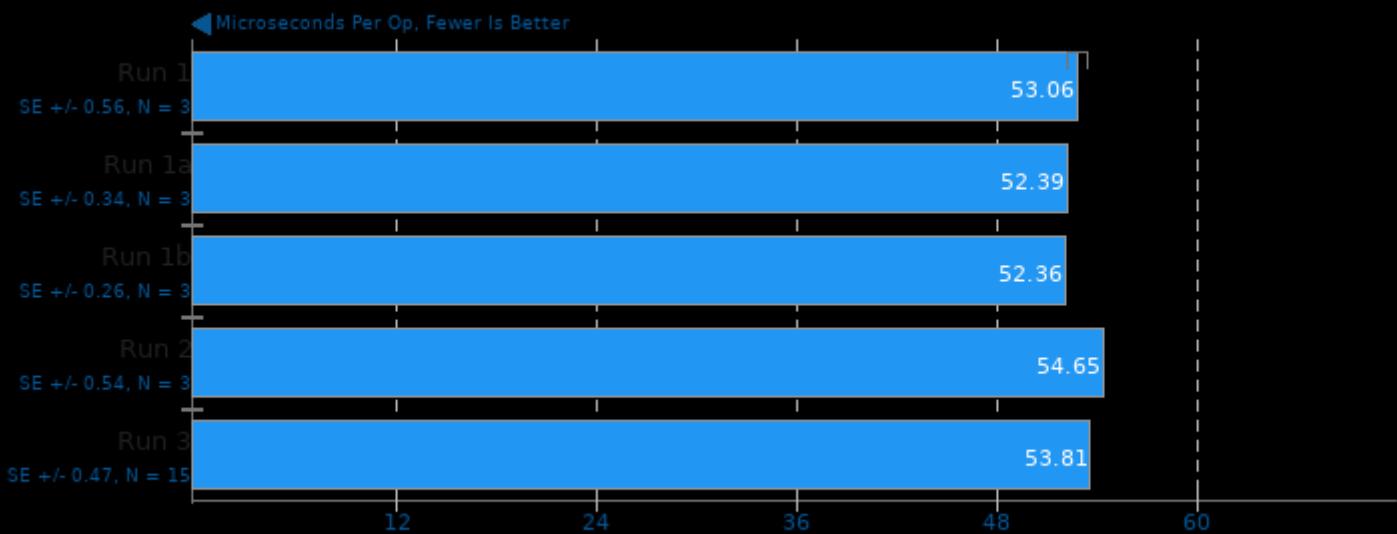
Benchmark: Overwrite



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

LevelDB 1.22

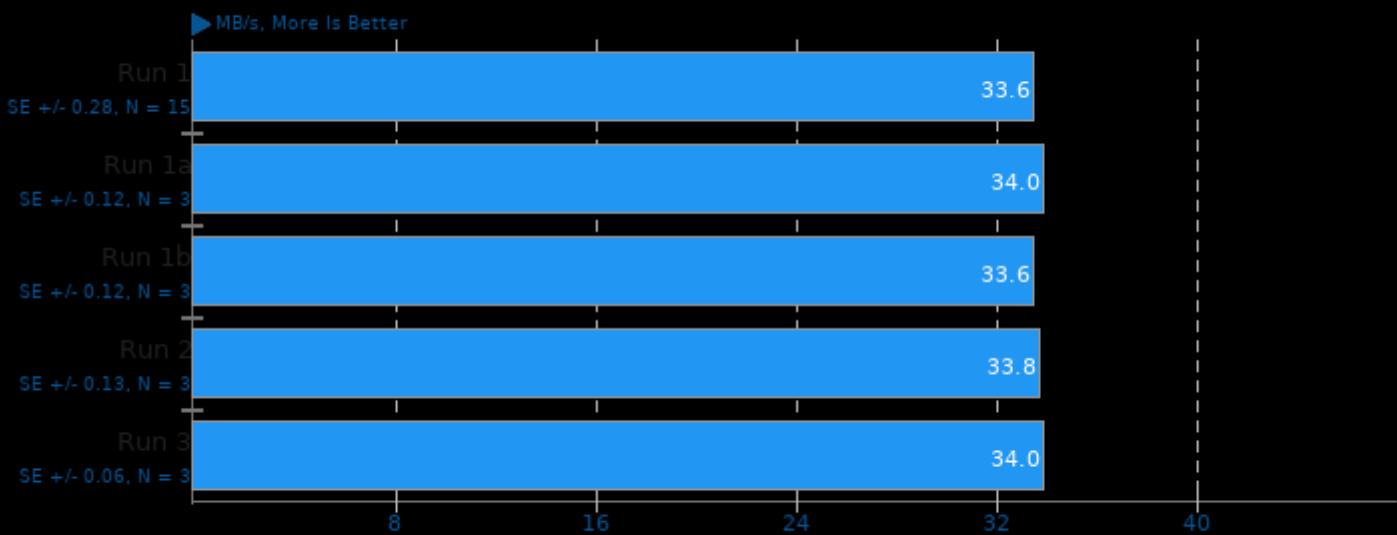
Benchmark: Overwrite



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

LevelDB 1.22

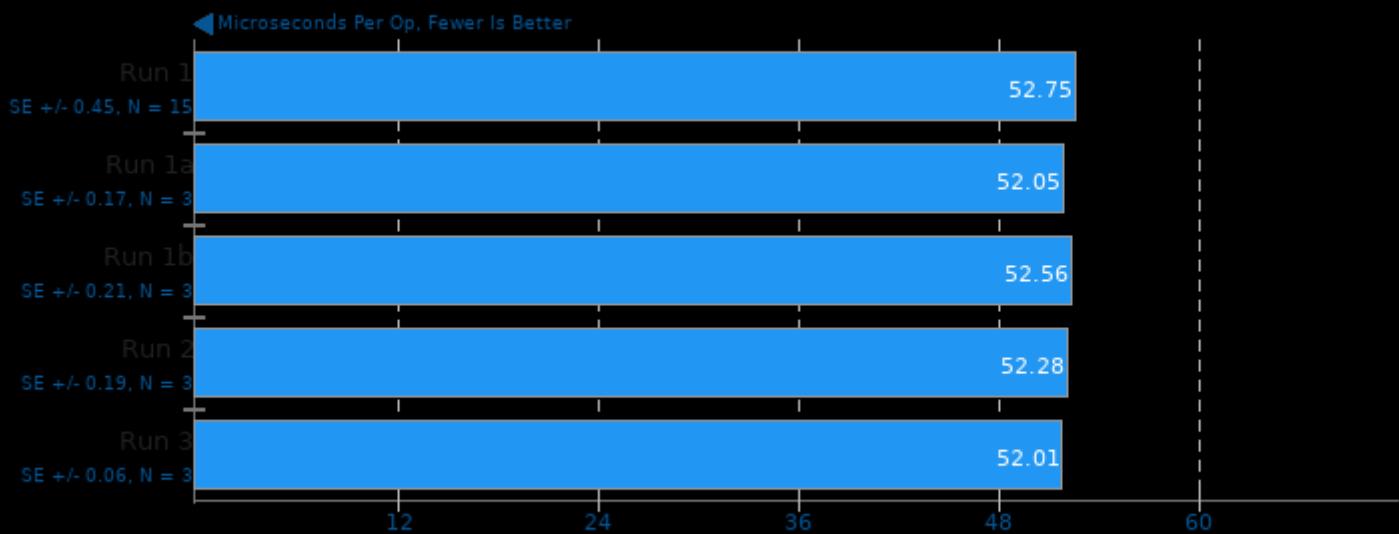
Benchmark: Random Fill



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

LevelDB 1.22

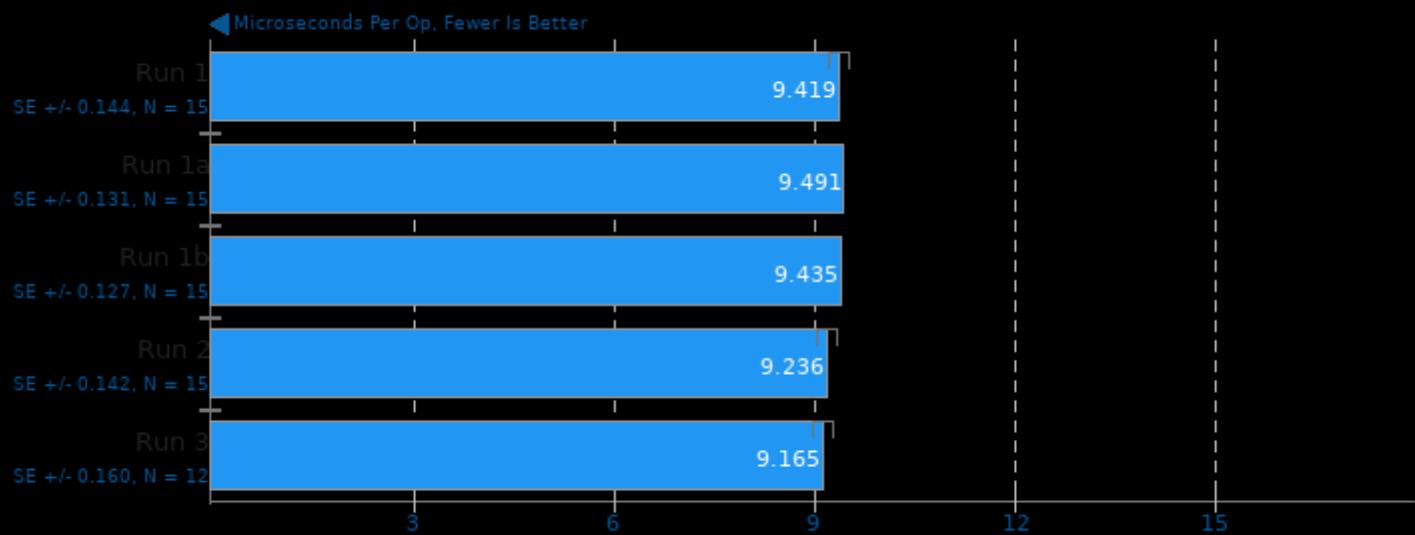
Benchmark: Random Fill



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

LevelDB 1.22

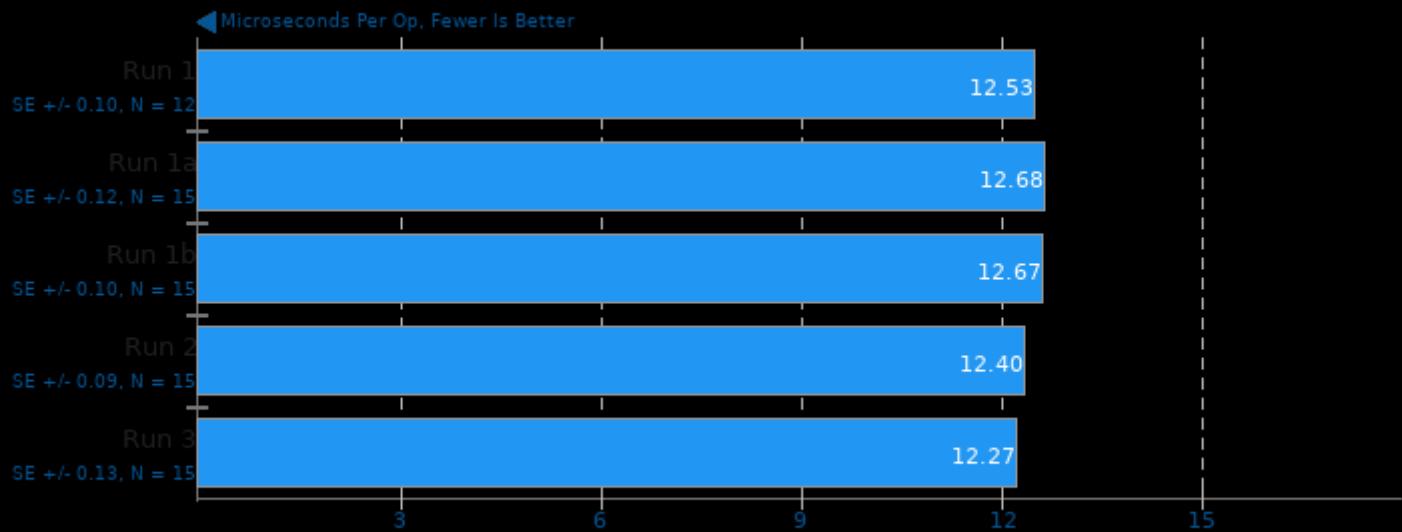
Benchmark: Random Read



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

LevelDB 1.22

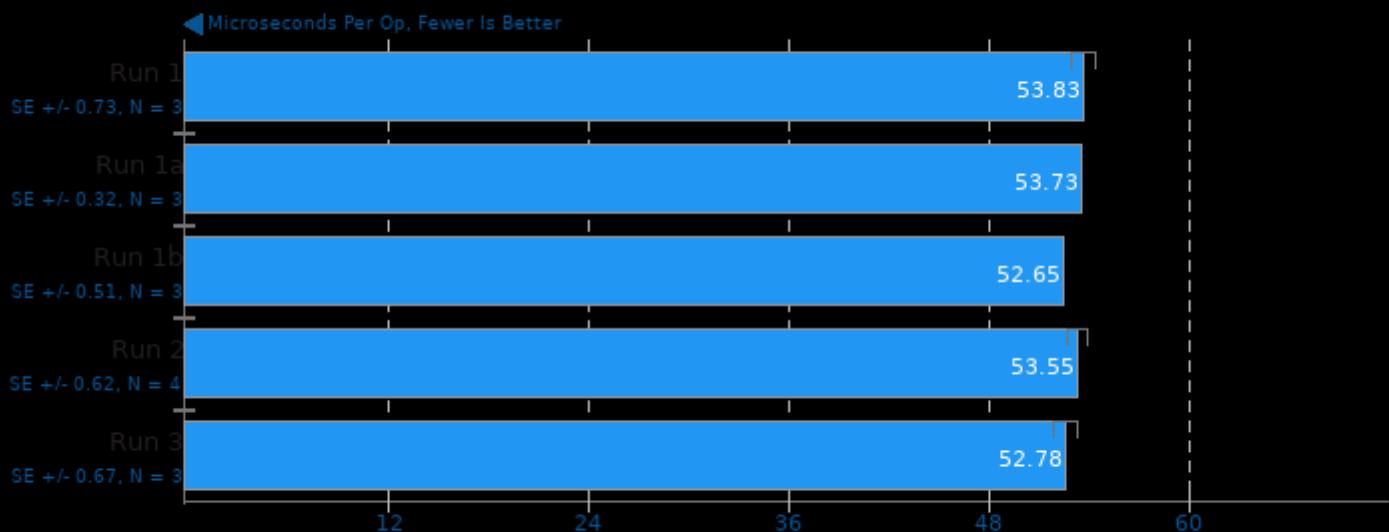
Benchmark: Seek Random



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

LevelDB 1.22

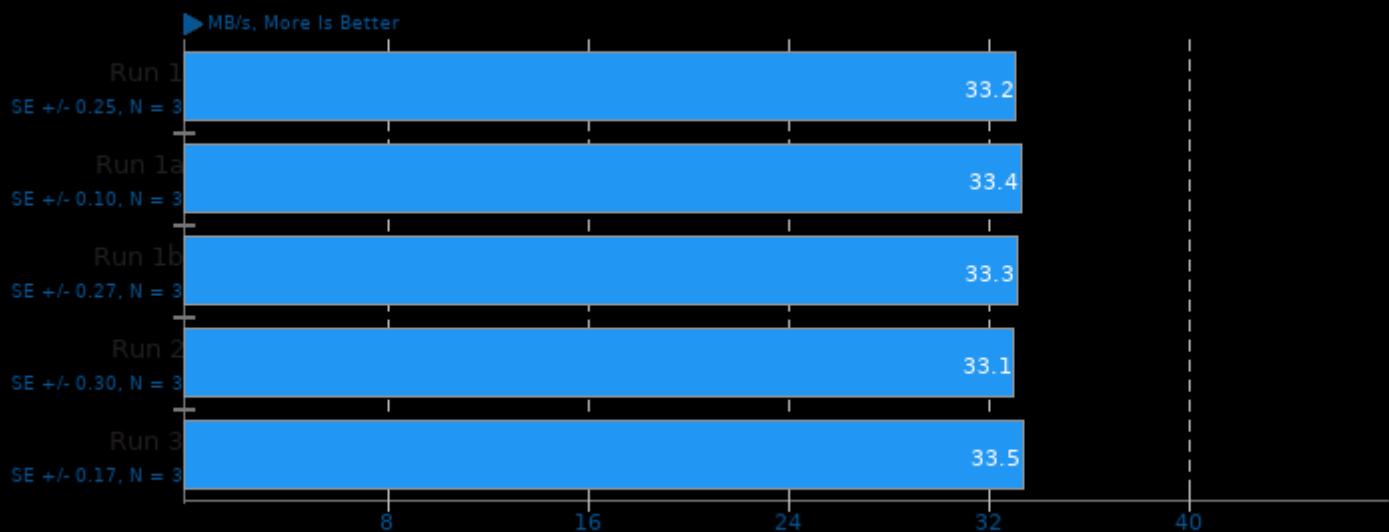
Benchmark: Random Delete



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

LevelDB 1.22

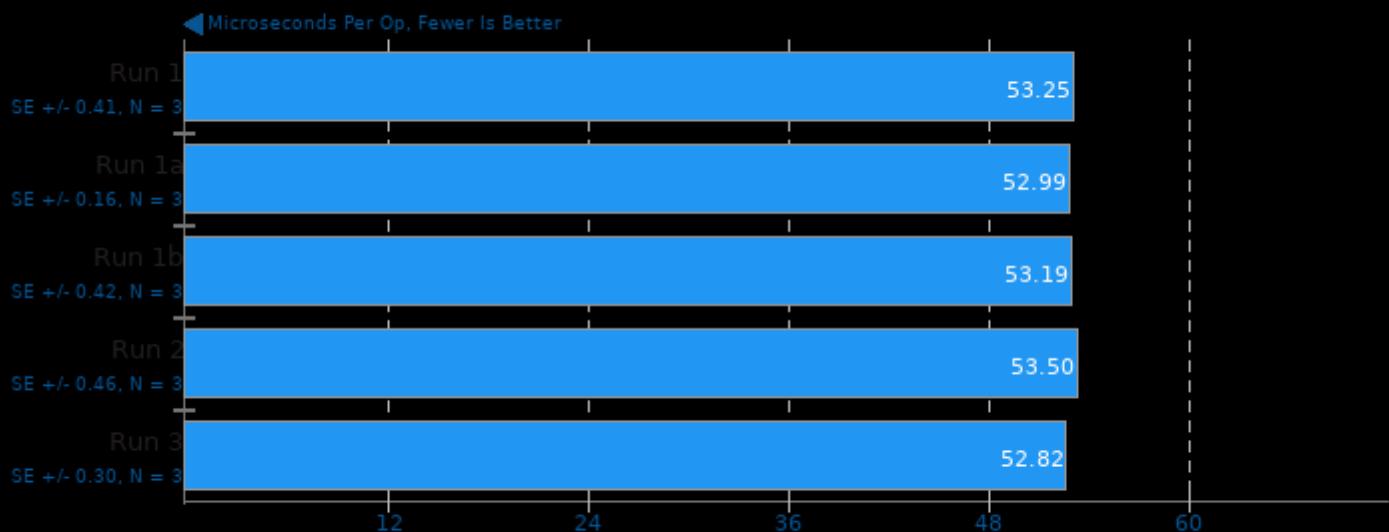
Benchmark: Sequential Fill



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

LevelDB 1.22

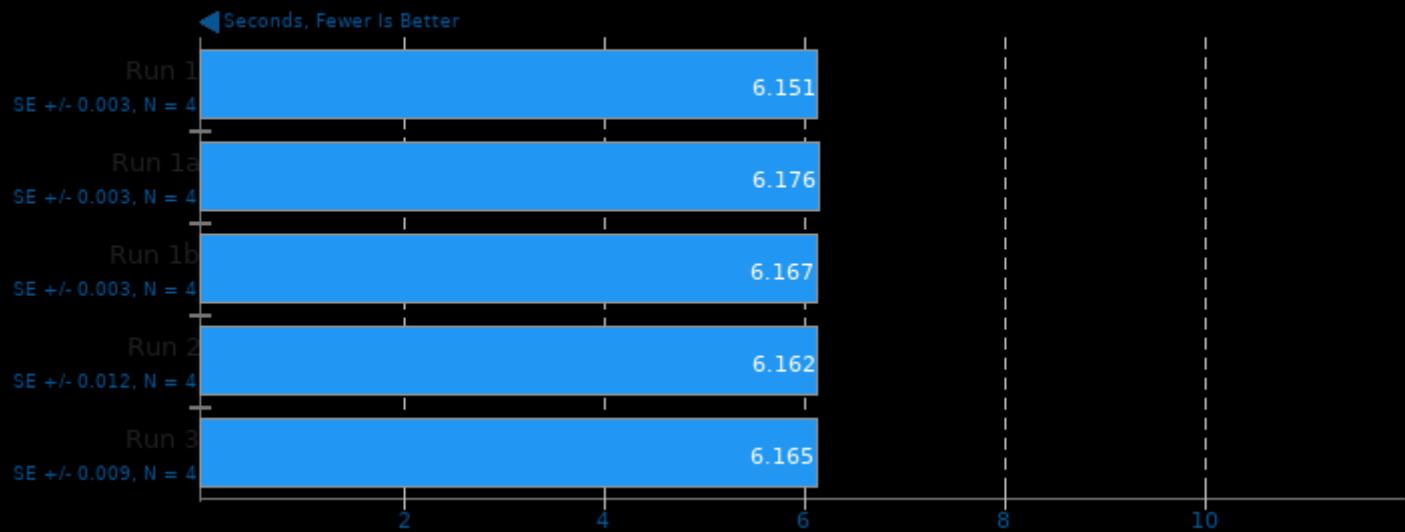
Benchmark: Sequential Fill



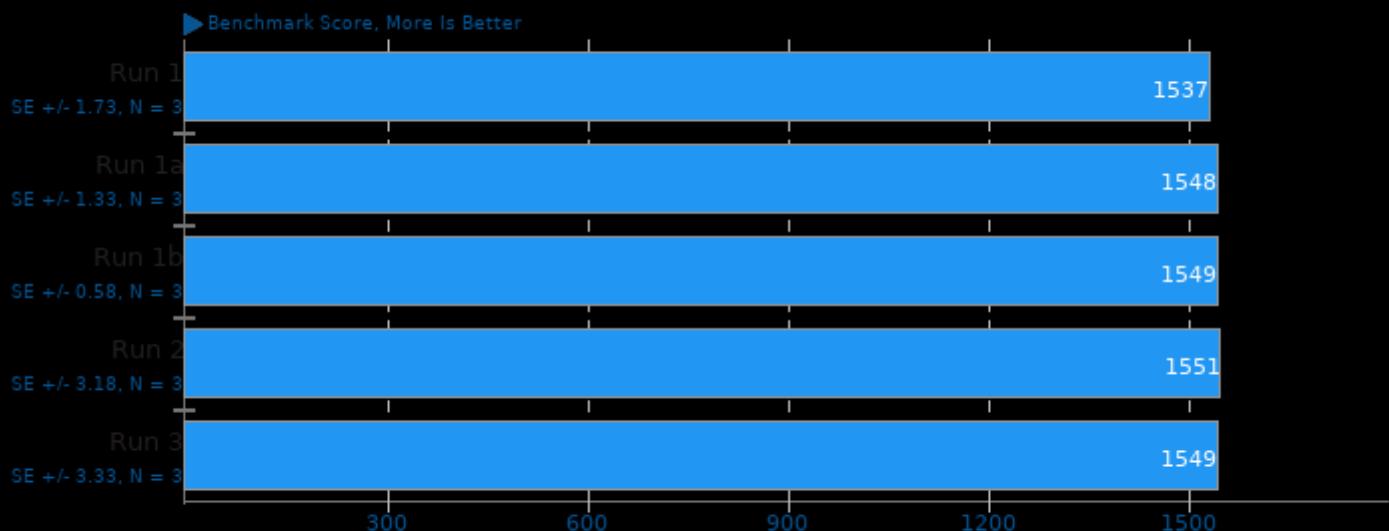
1. (CXX) g++ options: -O3 -lsnappy -lpthread

Unpacking The Linux Kernel

linux-4.15.tar.xz



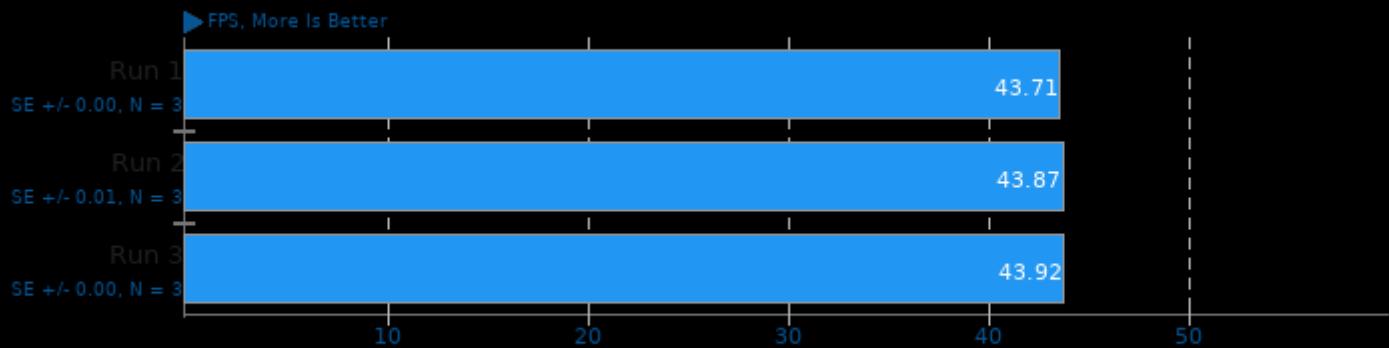
VkFFT 1.1.1



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

Libplacebo 2.72.2

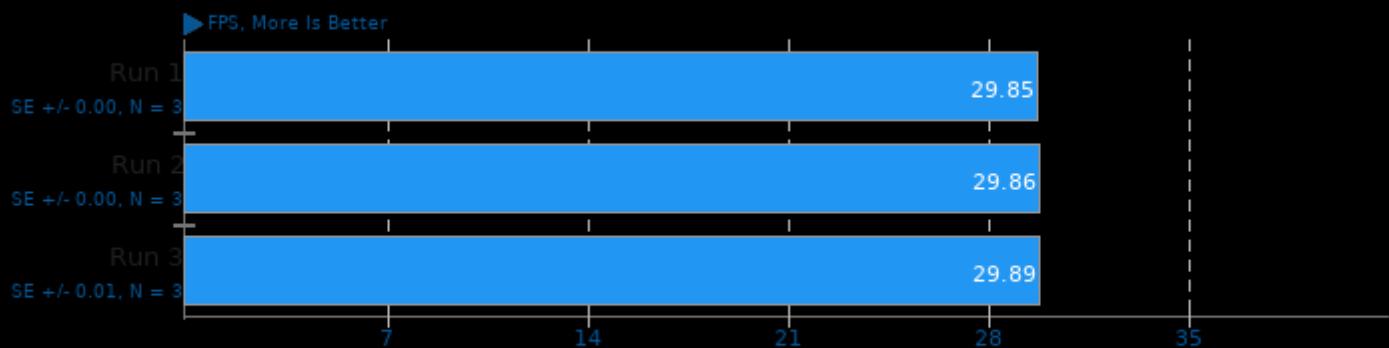
Test: deband_heavy



1. (CXX) g++ options: -lm -lglslang -IHLSL -IOGLCompiler -IOSDependent -ISPIRV -ISPVRemapper -ISPIRV-Tools -ISPIRV-Tools-opt -lpthread -pthread -pipe -

Libplacebo 2.72.2

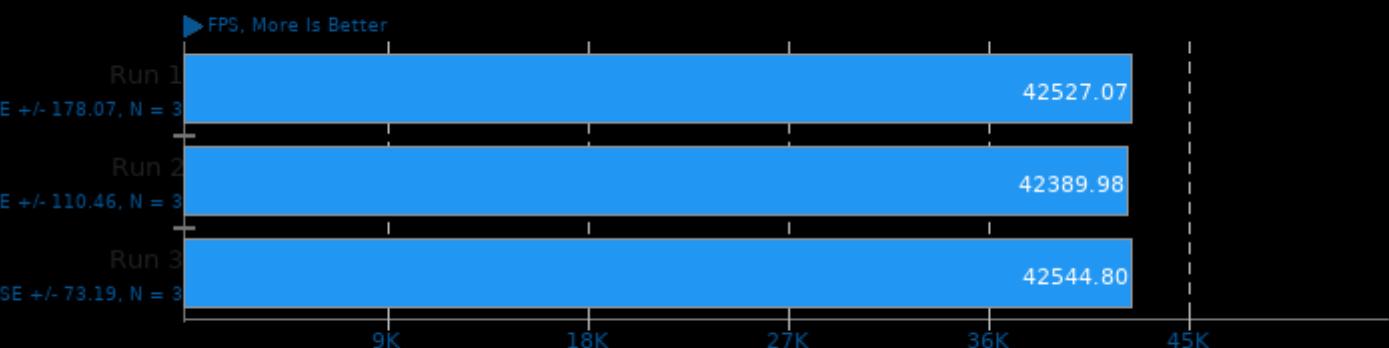
Test: polar_nocompute



1. (CXX) g++ options: -lm -lglslang -IHLSL -IOGLCompiler -IOSDependent -ISPIRV -ISPVRemapper -ISPIRV-Tools -ISPIRV-Tools-opt -lpthread -pthread -pipe -

Libplacebo 2.72.2

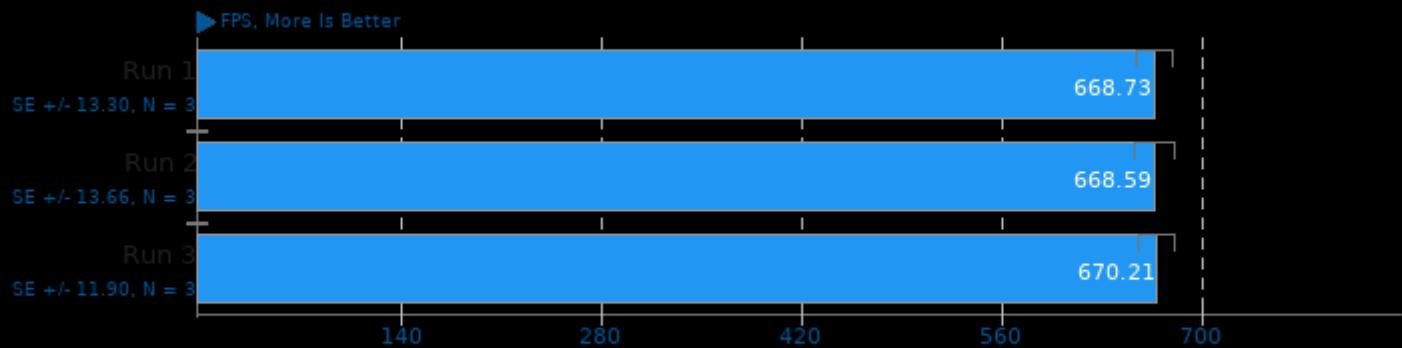
Test: hdr_peakdetect



1. (CXX) g++ options: -lm -lglslang -IHLSL -IOGLCompiler -IOSDependent -ISPIRV -ISPVRemapper -ISPIRV-Tools -ISPIRV-Tools-opt -lpthread -pthread -pipe -

Libplacebo 2.72.2

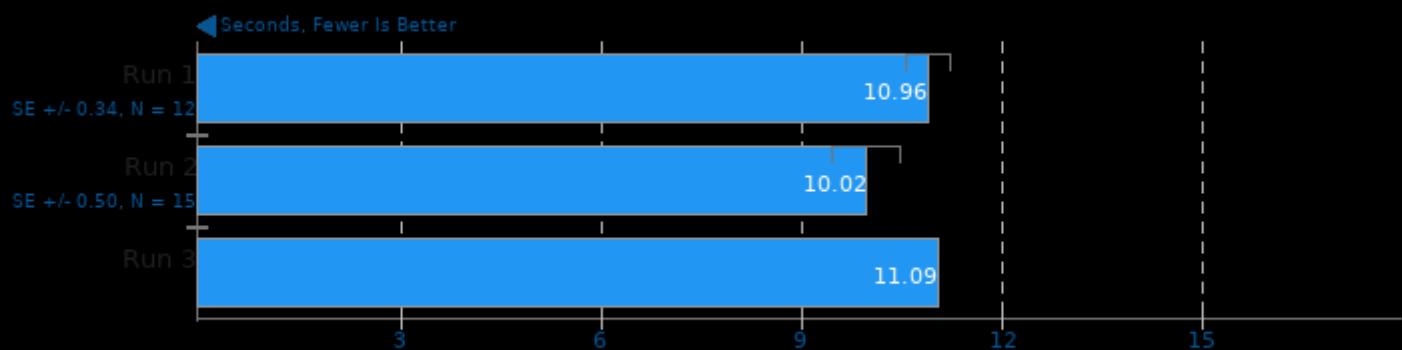
Test: av1_grain_lap



1. (CXX) g++ options: -lm -lglslang -IHLSL -IOGLCompiler -IOSDependent -ISPIRV -ISPVRemapper -ISPIRV-Tools -ISPIRV-Tools-opt -lpthread -pthread -pipe -

Betsy GPU Compressor 1.1 Beta

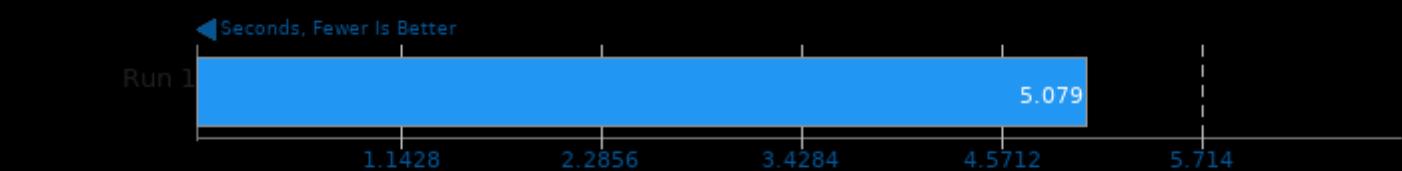
Codec: ETC1 - Quality: Highest



1. (CXX) g++ options: -O3 -O2 -lpthread -ldl

Betsy GPU Compressor 1.1 Beta

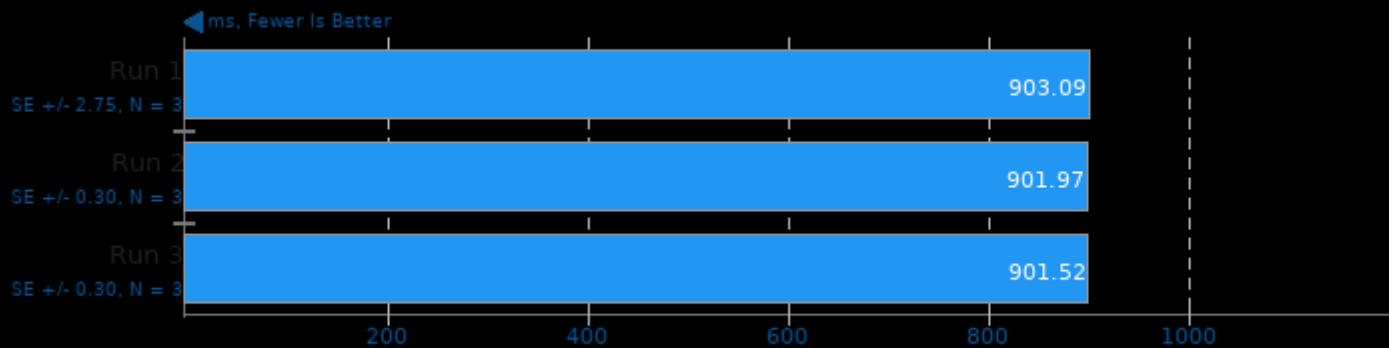
Codec: ETC2 RGB - Quality: Highest



1. (CXX) g++ options: -O3 -O2 -lpthread -ldl

VkResample 1.0

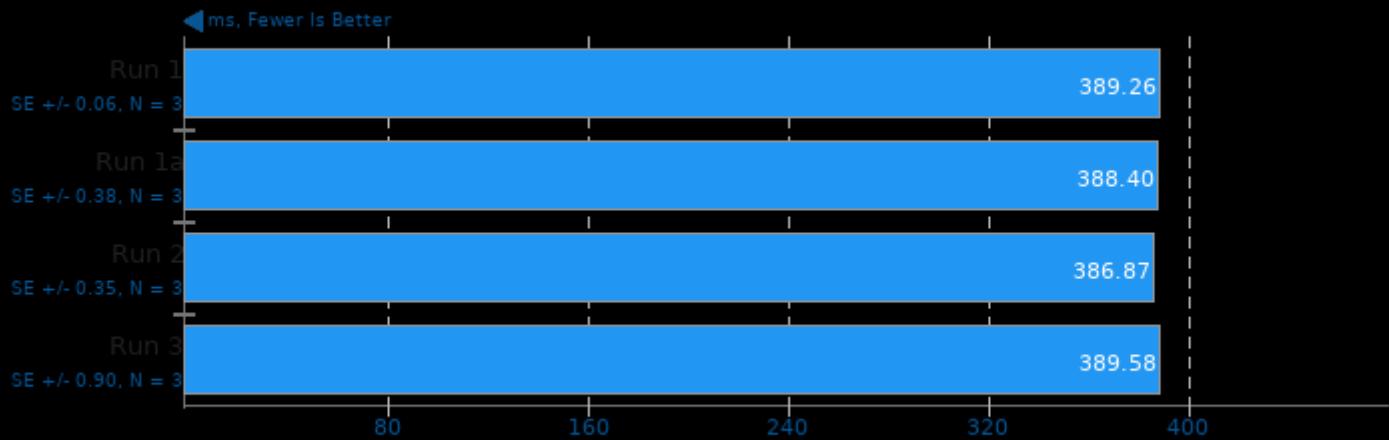
Upscale: 2x - Precision: Double



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

VkResample 1.0

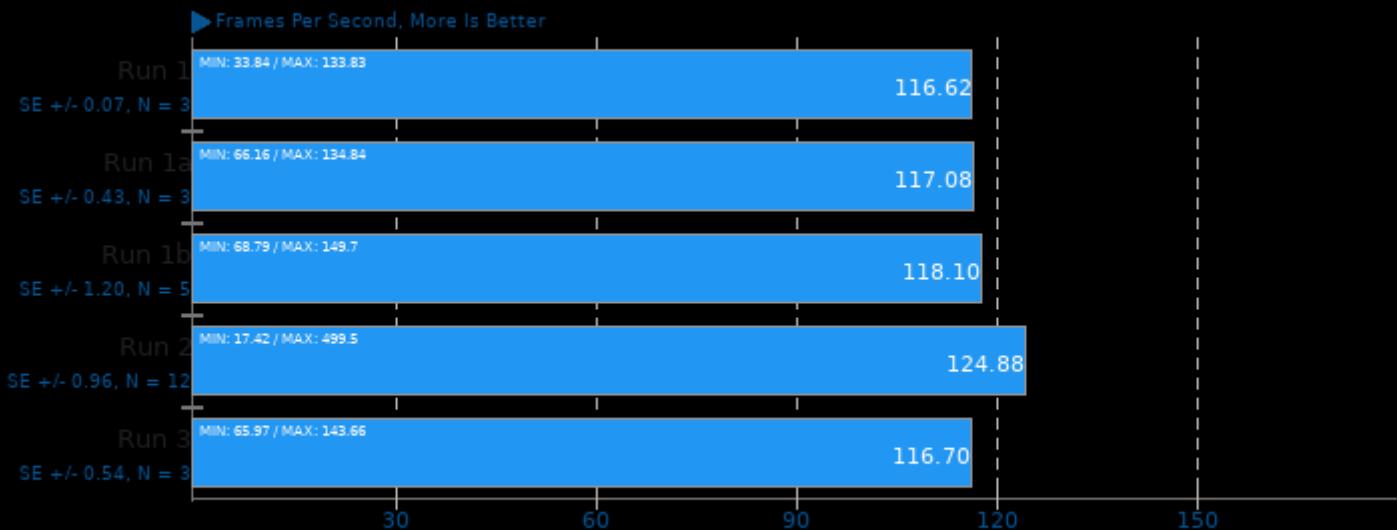
Upscale: 2x - Precision: Single



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

DDrakeNetwork 15.2.3

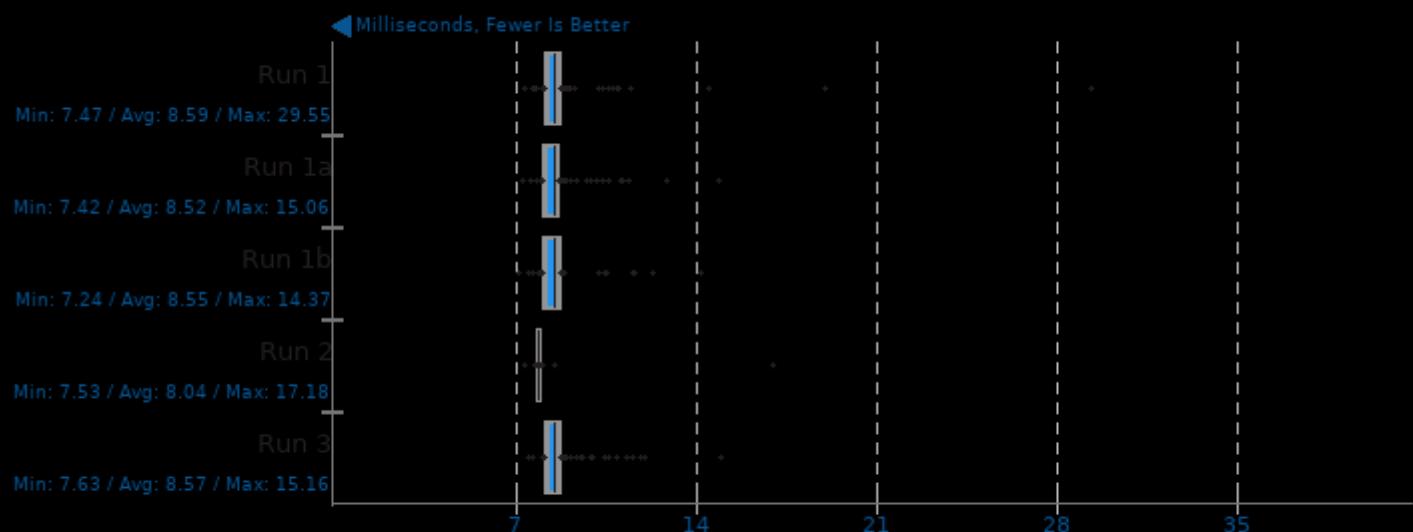
Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: RaiNyMore2



1. (CXX) g++ options: -O3 -rdynamic -lcrypto -lz -lrt -lpthread -curl -freetype -SDL2 -wavpack -opusfile -opus -logg -GL -X11 -notify -gdk_pixbuf-2.0 -

DDrakeNetwork 15.2.3

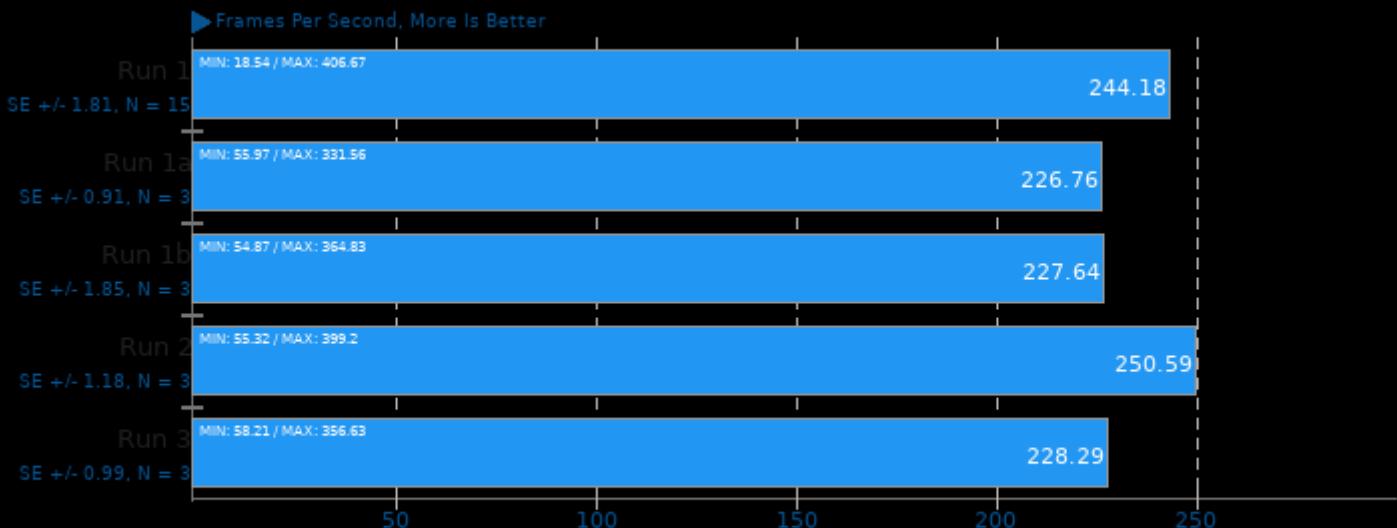
Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: RaiNyMore2 - Total Frame Time



1. (CXX) g++ options: -O3 -rdynamic -lcrypto -lz -lrt -lpthread -curl -freetype -SDL2 -wavpack -opusfile -opus -logg -GL -X11 -notify -gdk_pixbuf-2.0 -

DDrakeNetwork 15.2.3

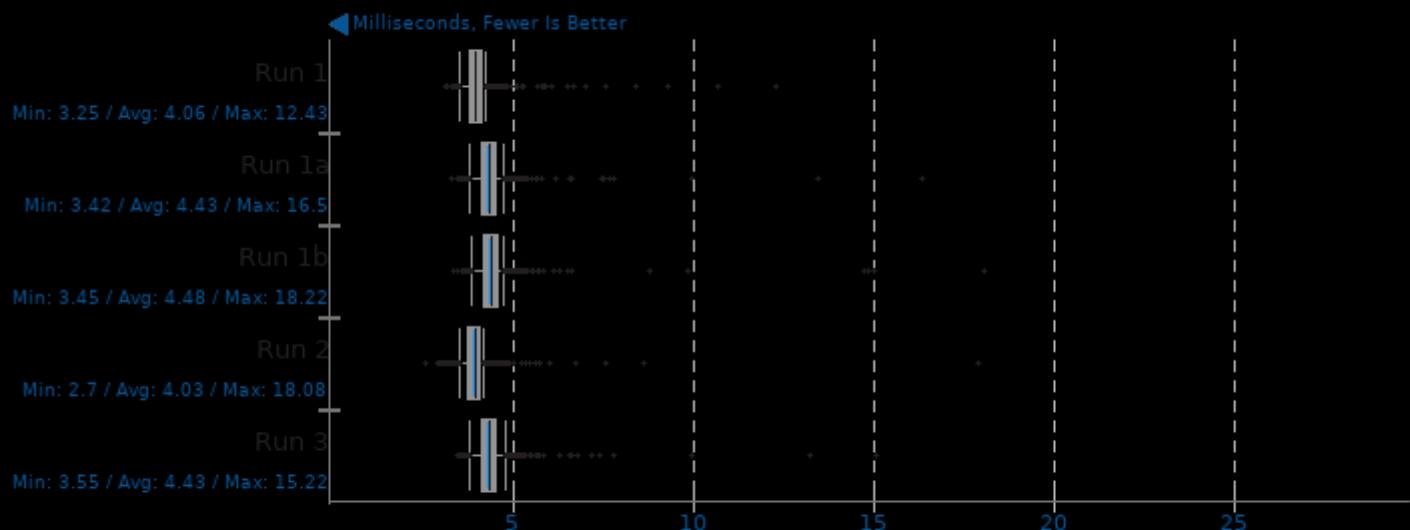
Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: Multeasymap



1. (CXX) g++ options: -O3 -rdynamic -lcrypto -lz -lrt -lpthread -curl -freetype -SDL2 -wavpack -opusfile -opus -logg -GL -X11 -notify -gdk_pixbuf-2.0 -

DDrakeNetwork 15.2.3

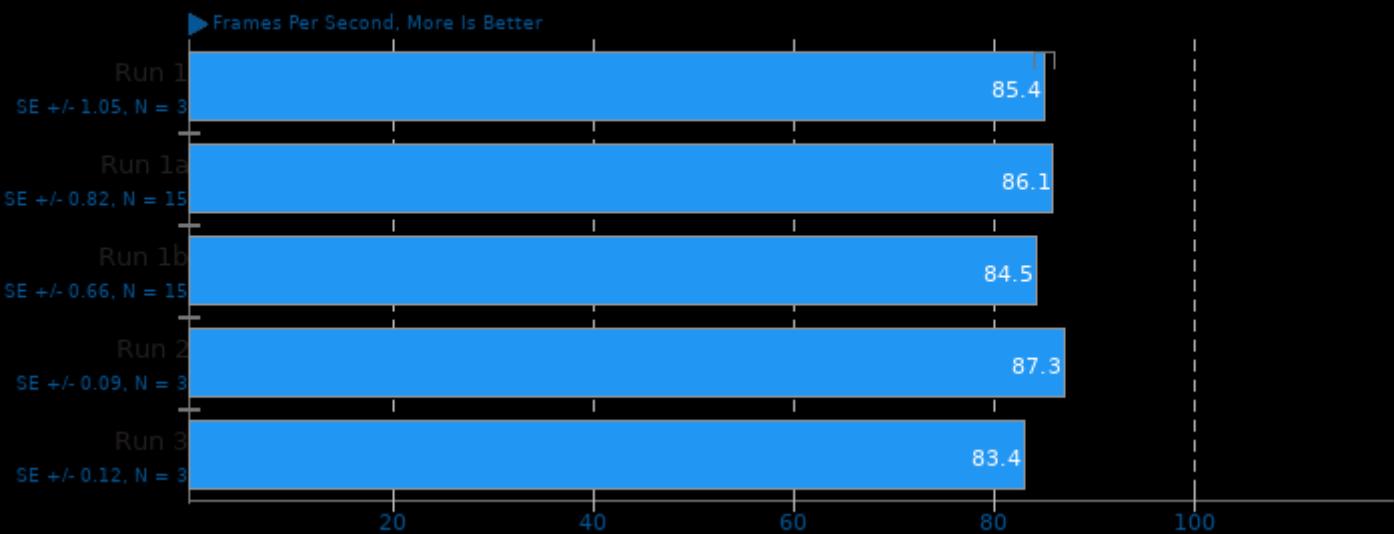
Resolution: 1920 x 1080 - Mode: Fullscreen - Renderer: OpenGL 3.3 - Zoom: Default - Demo: Multeasymap - Total Frame Time



1. (CXX) g++ options: -O3 -rdynamic -lcrypto -lz -lrt -lpthread -curl -freetype -SDL2 -wavpack -opusfile -opus -logg -GL -X11 -notify -gdk_pixbuf-2.0 -

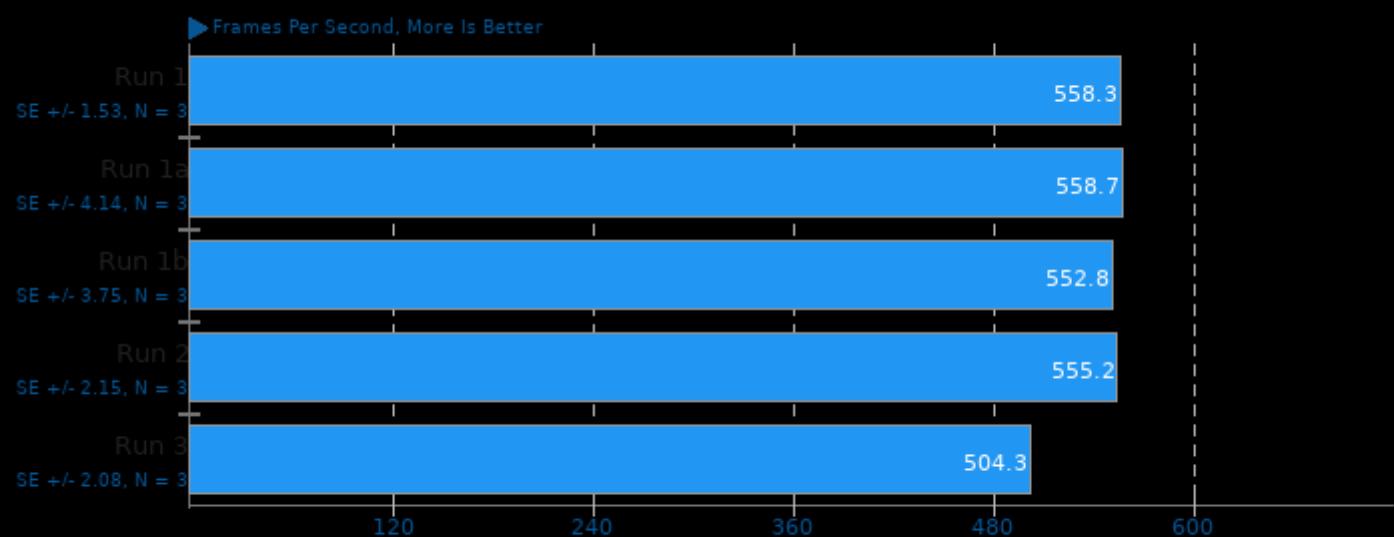
Warsow 2.5 Beta

Resolution: 1920 x 1080



yquake2 7.45

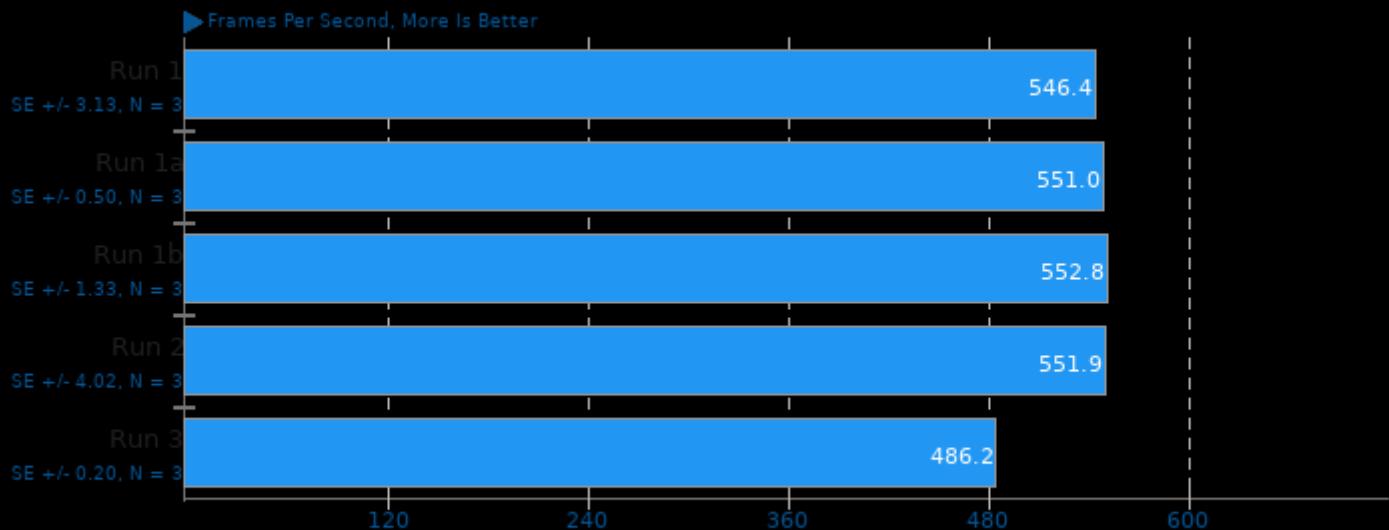
Renderer: OpenGL 1.x - Resolution: 1920 x 1080



1. (CC) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 7.45

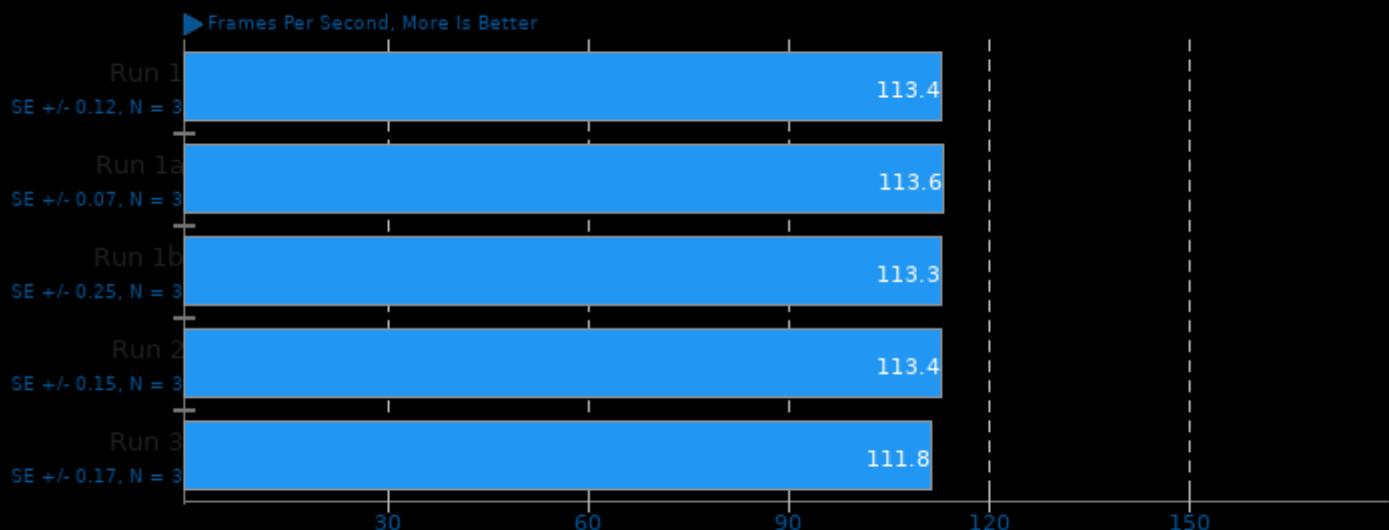
Renderer: OpenGL 3.x - Resolution: 1920 x 1080



1. (CC) gcc options: -fno-omit-frame-pointer -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

yquake2 7.45

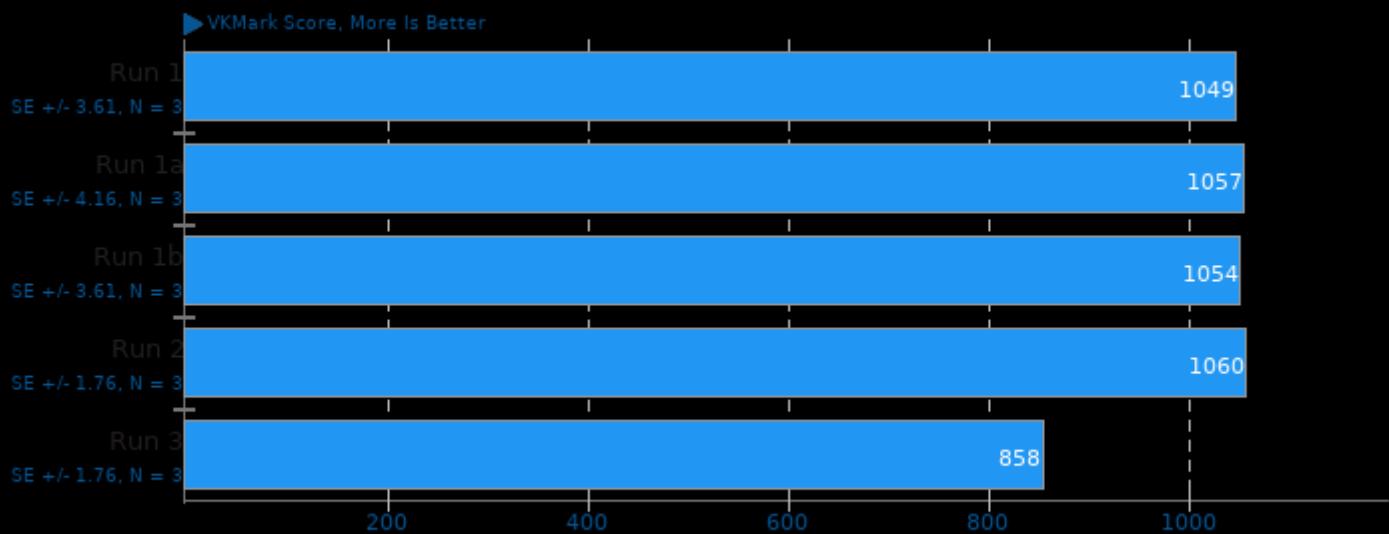
Renderer: Software CPU - Resolution: 1920 x 1080



1. (CC) gcc options: -fno-omit-frame-pointer -fwrapv -fvisibility=hidden -MMD -mfpmath=sse

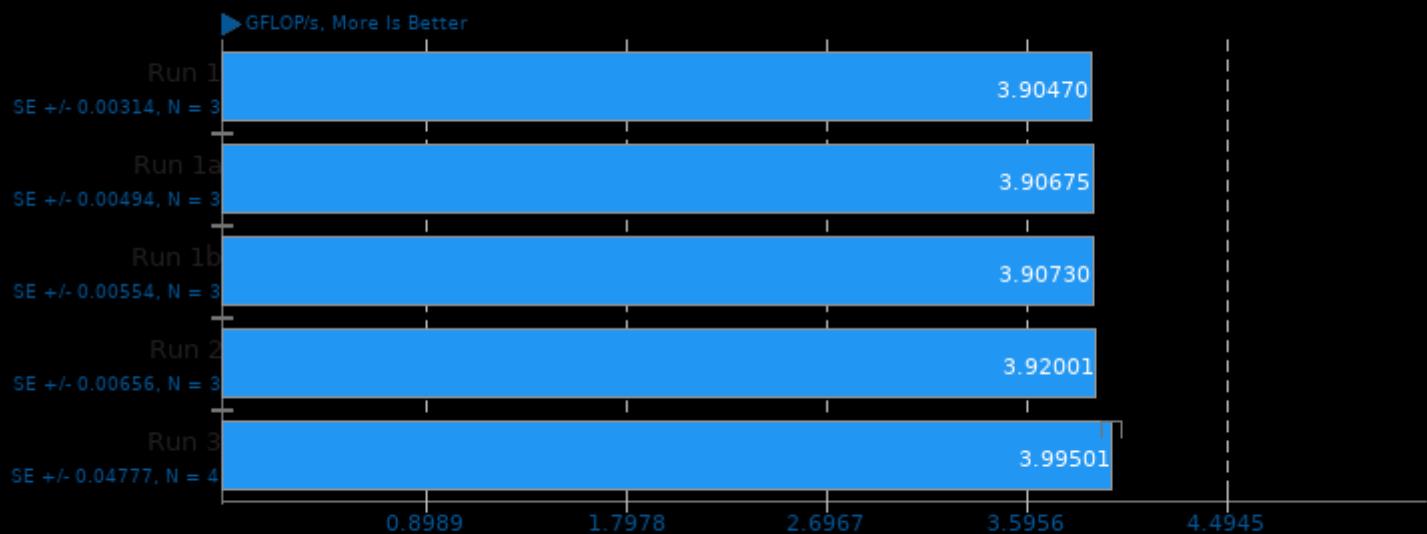
VKMark 2020-05-21

Resolution: 1920 x 1080



1. (CXX) g++ options: -pthread -ldl -pipe -std=c++14 -MD -MQ -MF

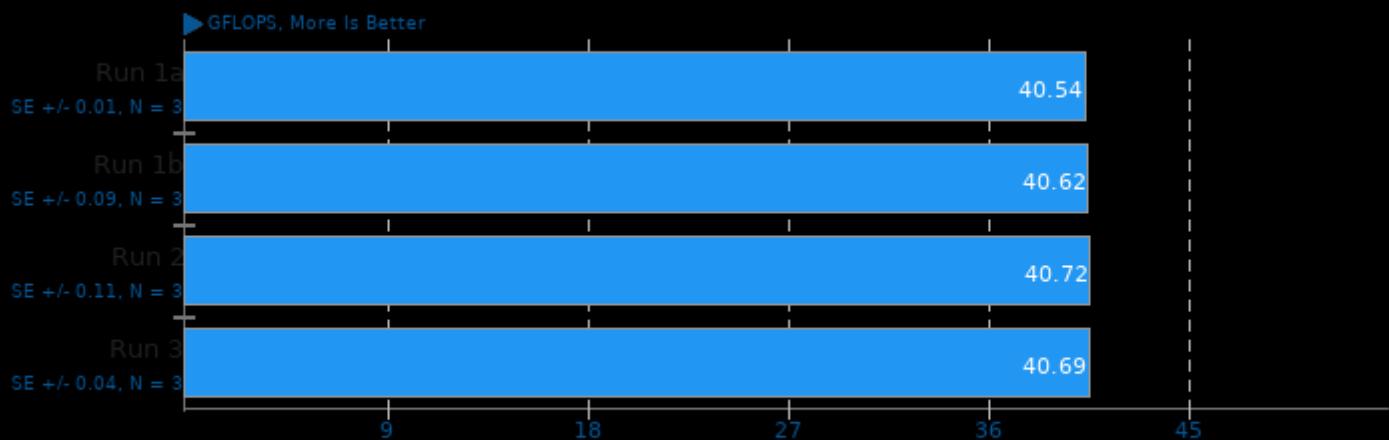
High Performance Conjugate Gradient 3.1



1. (CXX) g++ options: -O3 -ffast-math -fno-tree-vectorize -pthread -lmpi_cxx -lmpi

HPC Challenge 1.5.0

Test / Class: G-HPL

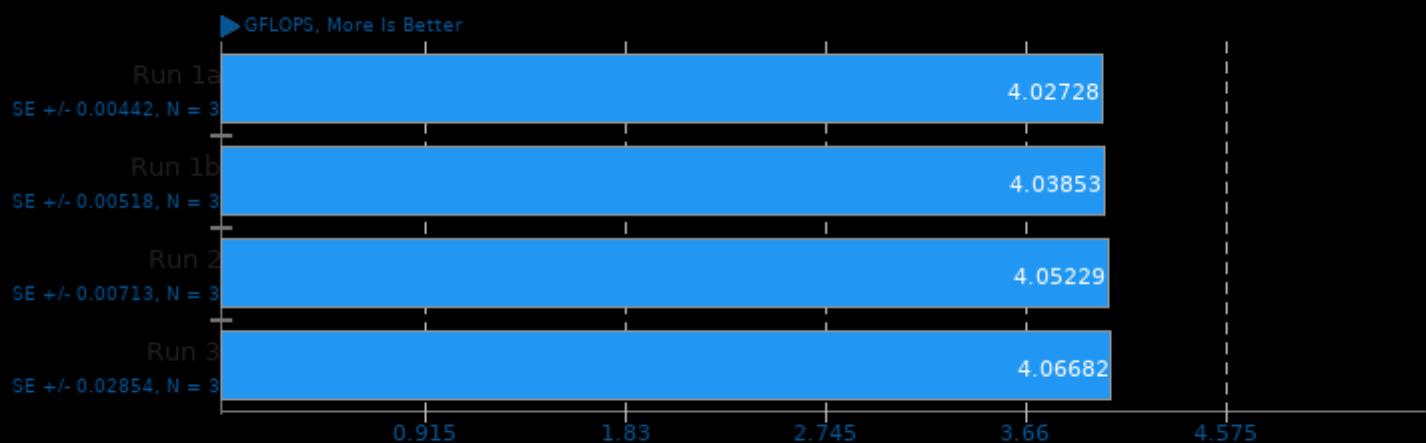


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -funroll-loops

2. ATLAS + Open MPI 4.0.3

HPC Challenge 1.5.0

Test / Class: G-Fft

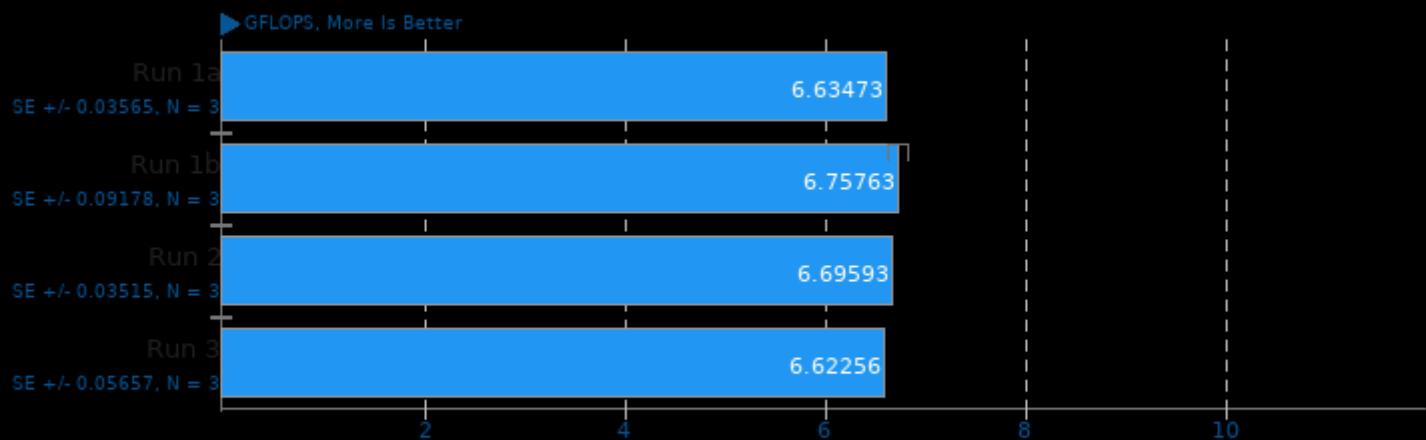


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -funroll-loops

2. ATLAS + Open MPI 4.0.3

HPC Challenge 1.5.0

Test / Class: EP-DGEMM

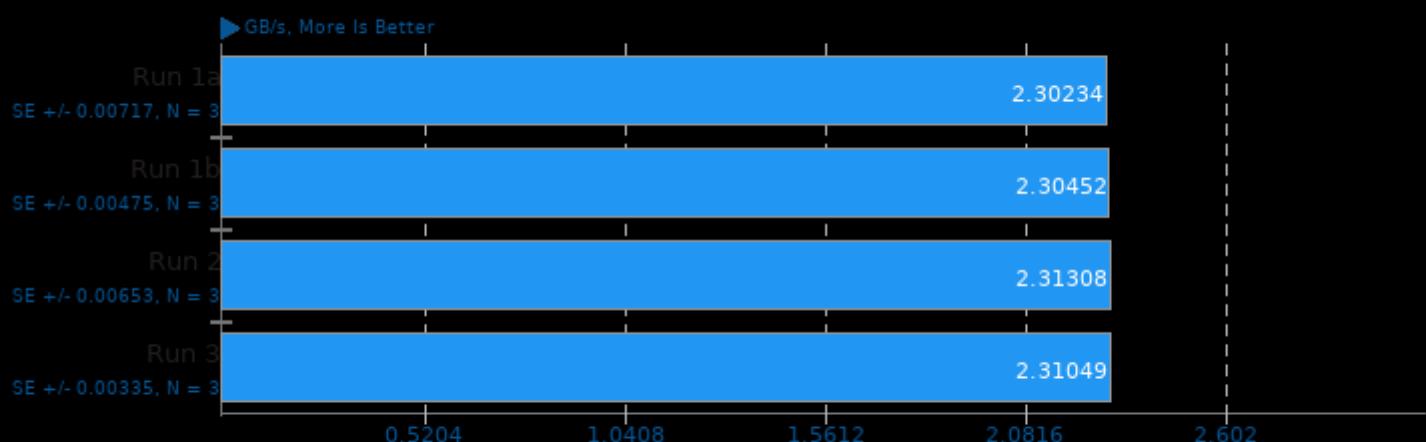


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -funroll-loops

2. ATLAS + Open MPI 4.0.3

HPC Challenge 1.5.0

Test / Class: G-Ptrans

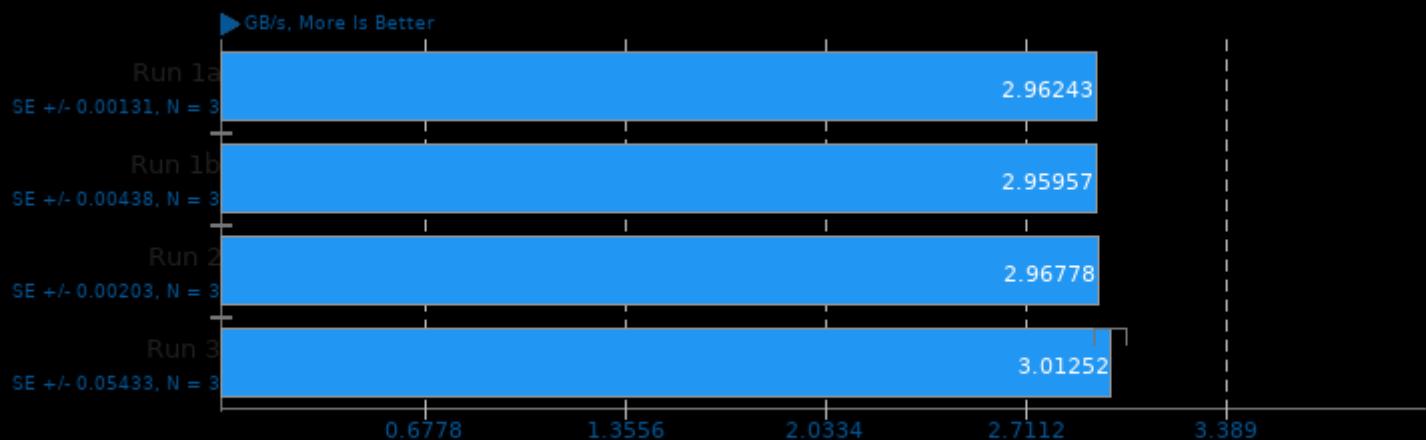


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -funroll-loops

2. ATLAS + Open MPI 4.0.3

HPC Challenge 1.5.0

Test / Class: EP-STREAM Triad

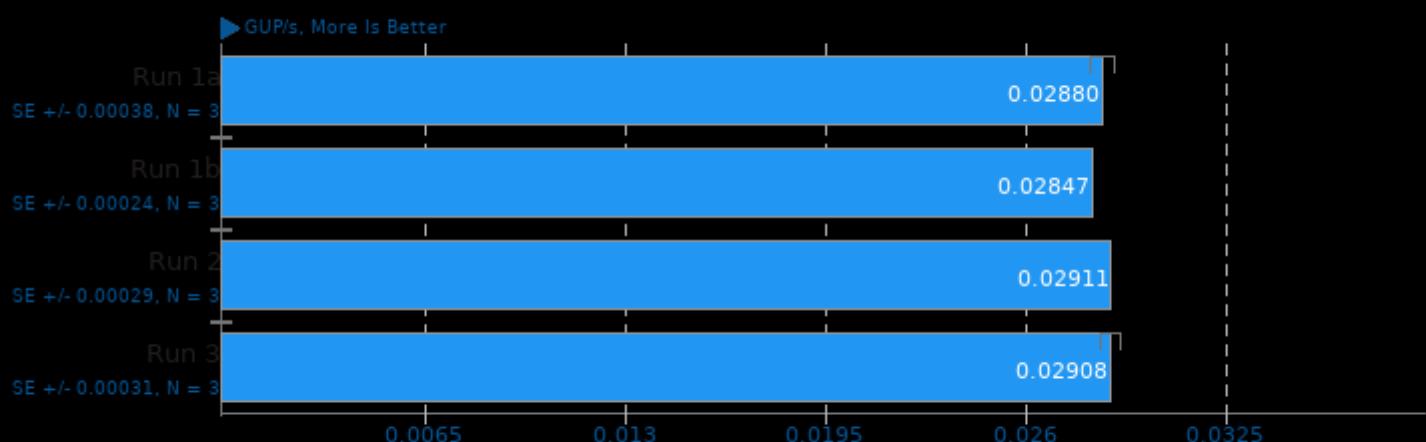


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -funroll-loops

2. ATLAS + Open MPI 4.0.3

HPC Challenge 1.5.0

Test / Class: G-Random Access

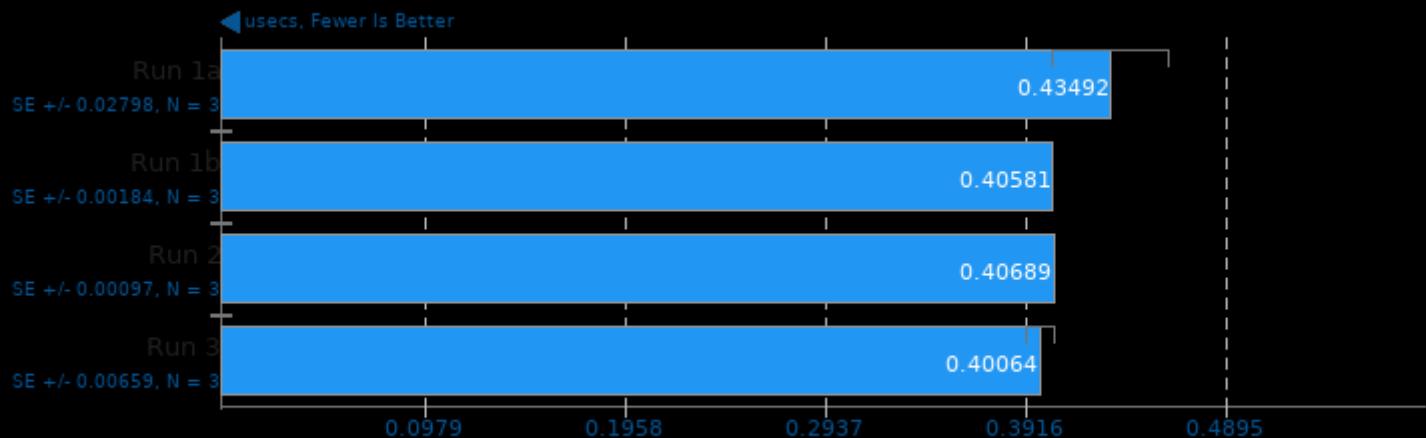


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -funroll-loops

2. ATLAS + Open MPI 4.0.3

HPC Challenge 1.5.0

Test / Class: Random Ring Latency

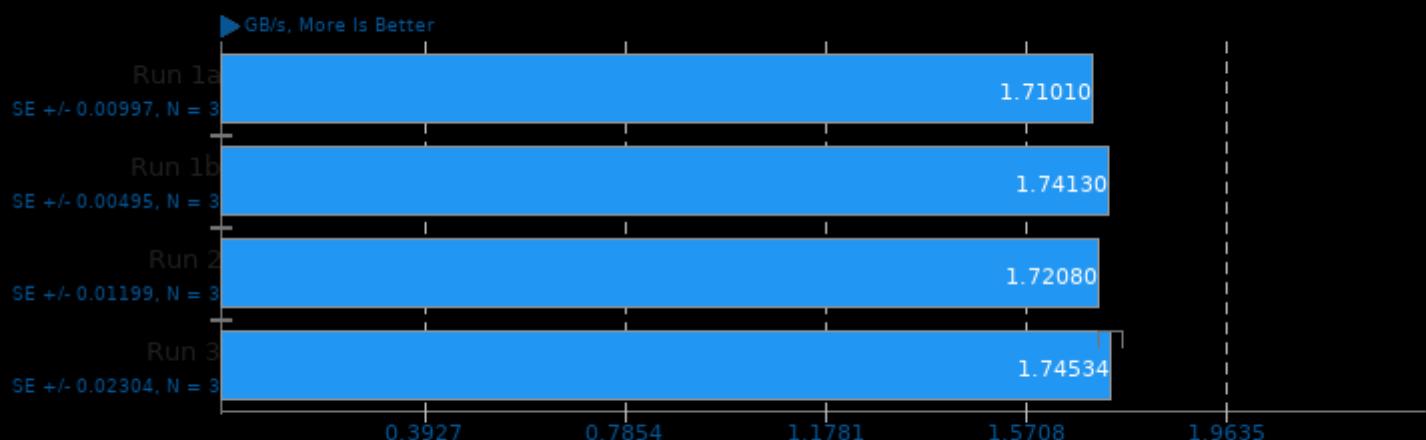


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -funroll-loops

2. ATLAS + Open MPI 4.0.3

HPC Challenge 1.5.0

Test / Class: Random Ring Bandwidth

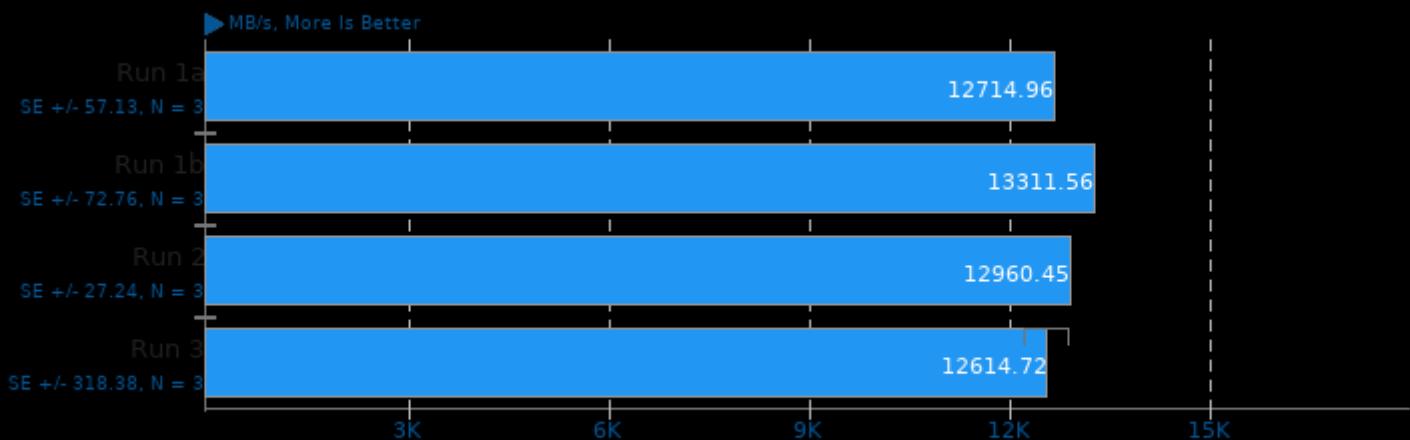


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -funroll-loops

2. ATLAS + Open MPI 4.0.3

HPC Challenge 1.5.0

Test / Class: Max Ping Pong Bandwidth

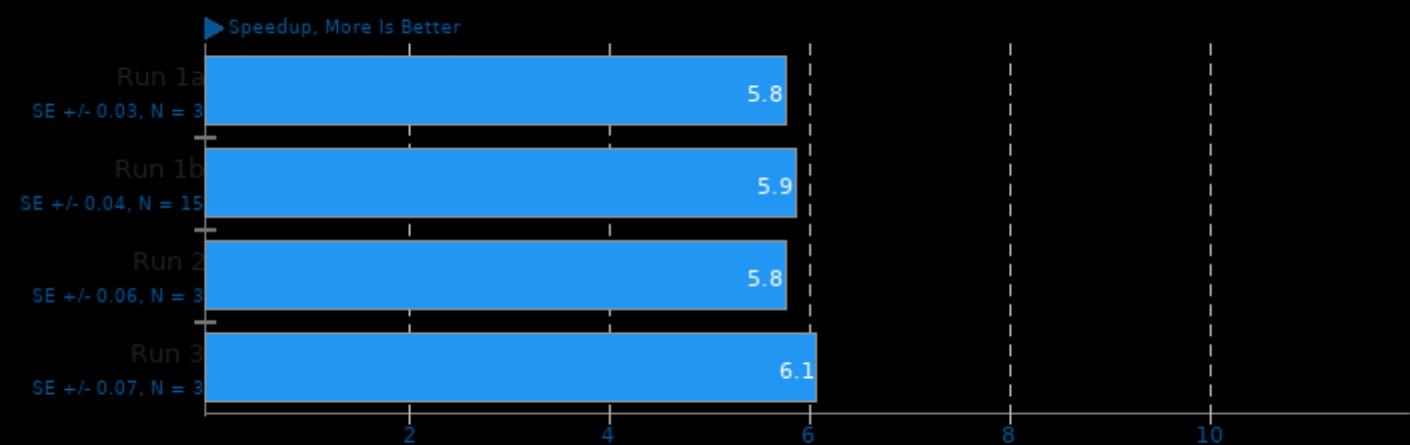


1. (CC) gcc options: -lblas -lm -pthread -lmpi -fomit-frame-pointer -funroll-loops

2. ATLAS + Open MPI 4.0.3

CLOMP 1.2

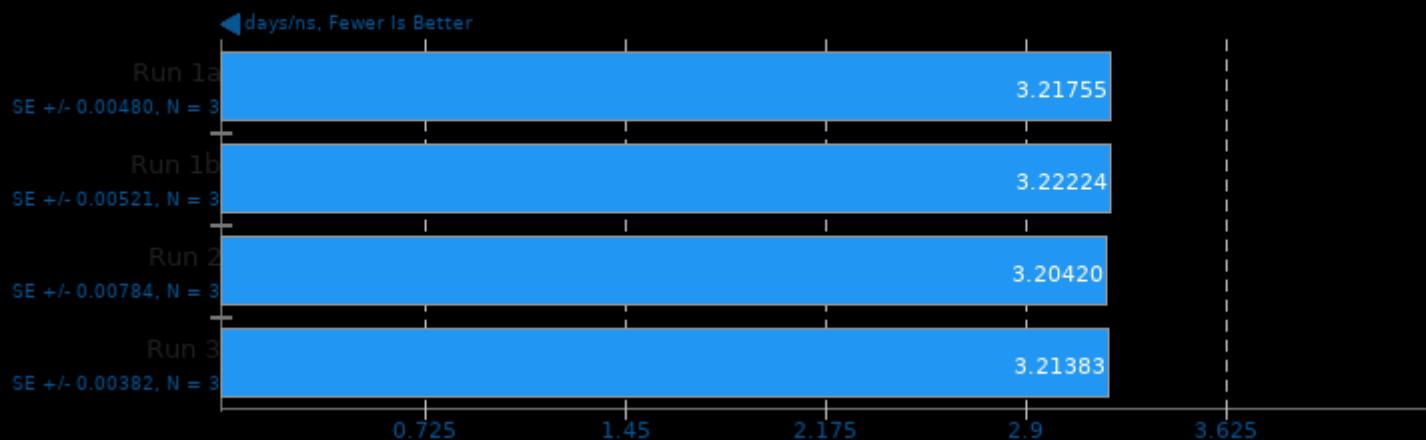
Static OMP Speedup



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

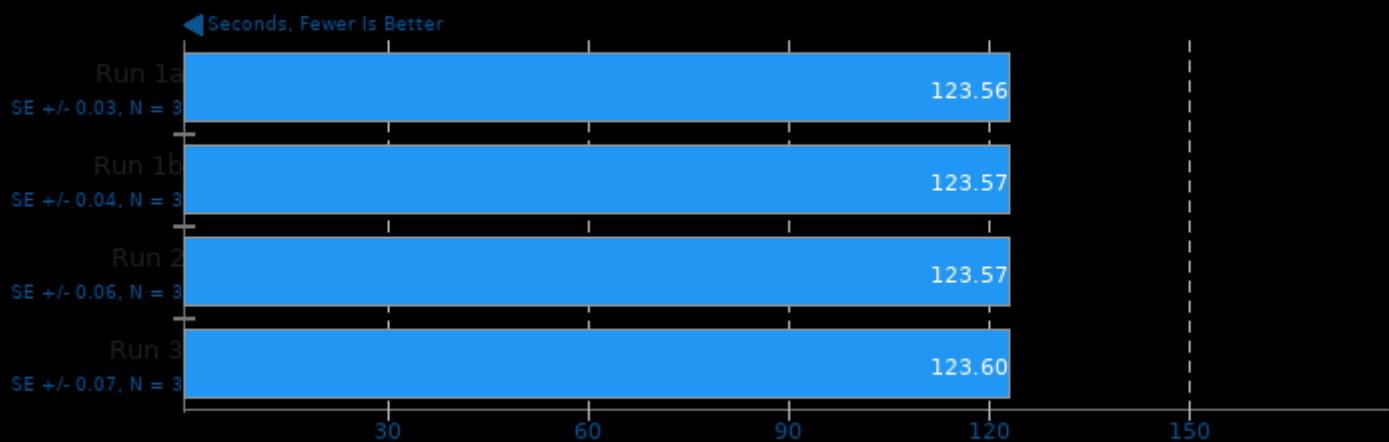
NAMD 2.14

ATPase Simulation - 327,506 Atoms



Timed HMMer Search 3.3.1

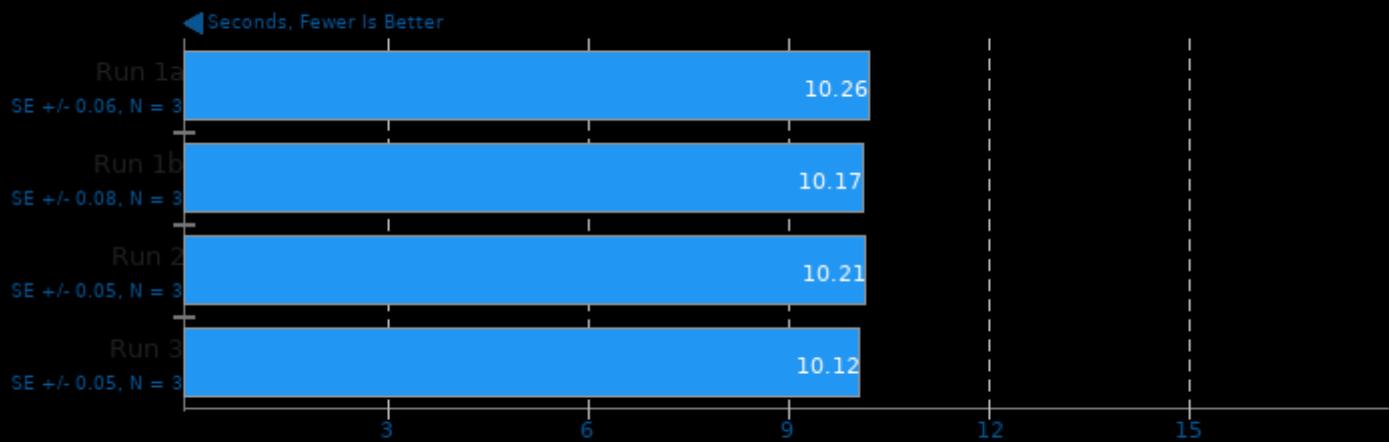
Pfam Database Search



1. (CC) gcc options: -O3 -pthread -lhmmer -leasel -lm

Timed MAFFT Alignment 7.471

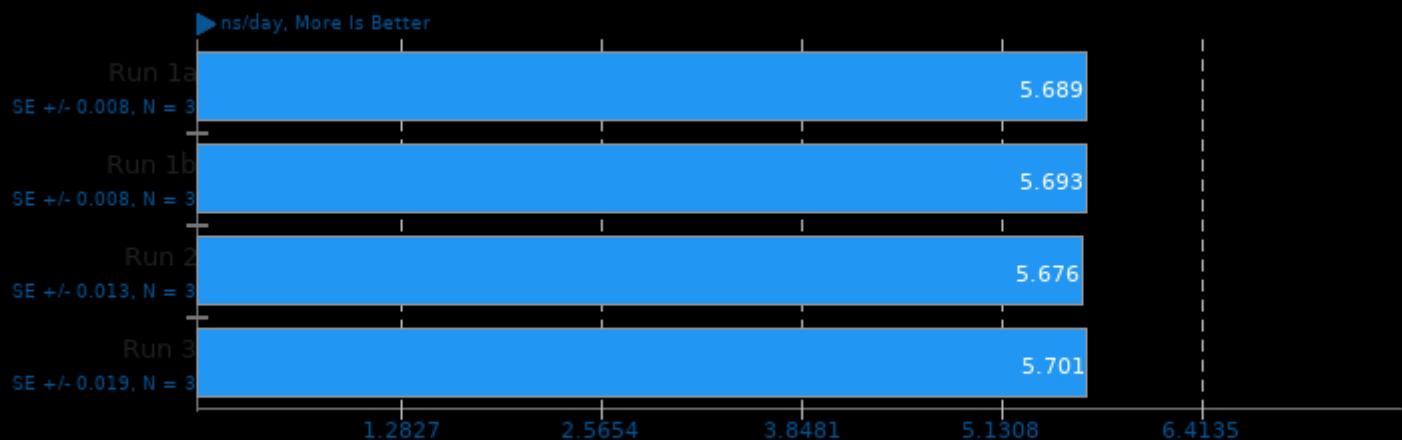
Multiple Sequence Alignment - LSU RNA



1. (CC) gcc options: -std=c99 -O3 -lm -lpthread

LAMMPS Molecular Dynamics Simulator 29Oct2020

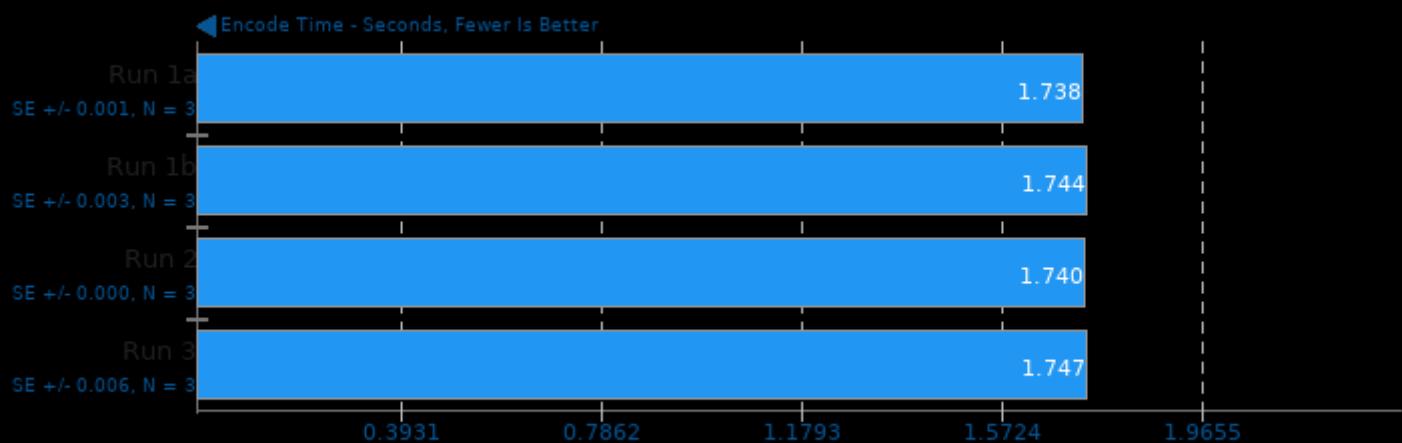
Model: Rhodopsin Protein



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

WebP Image Encode 1.1

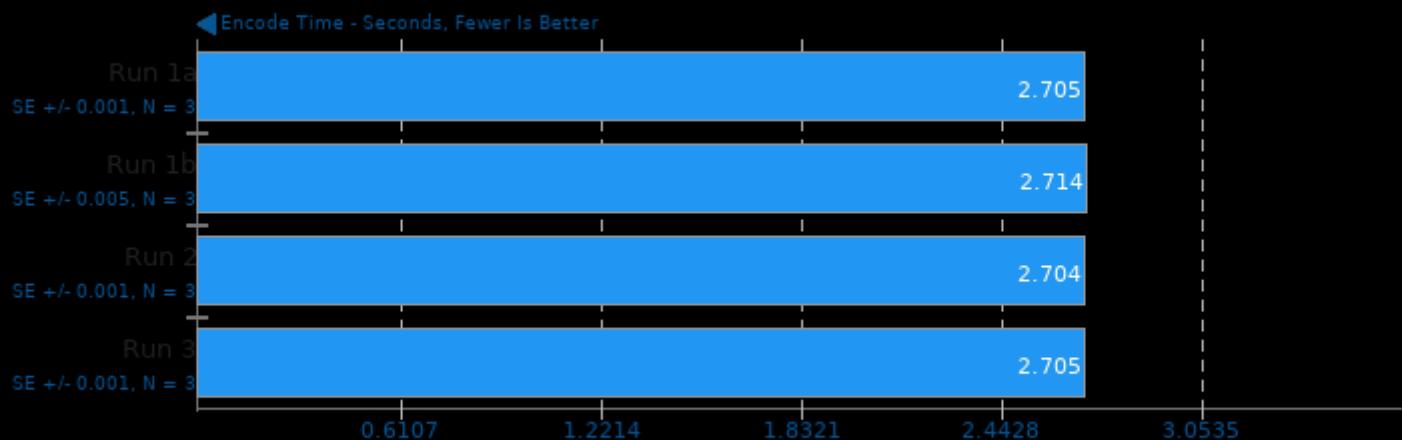
Encode Settings: Default



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

WebP Image Encode 1.1

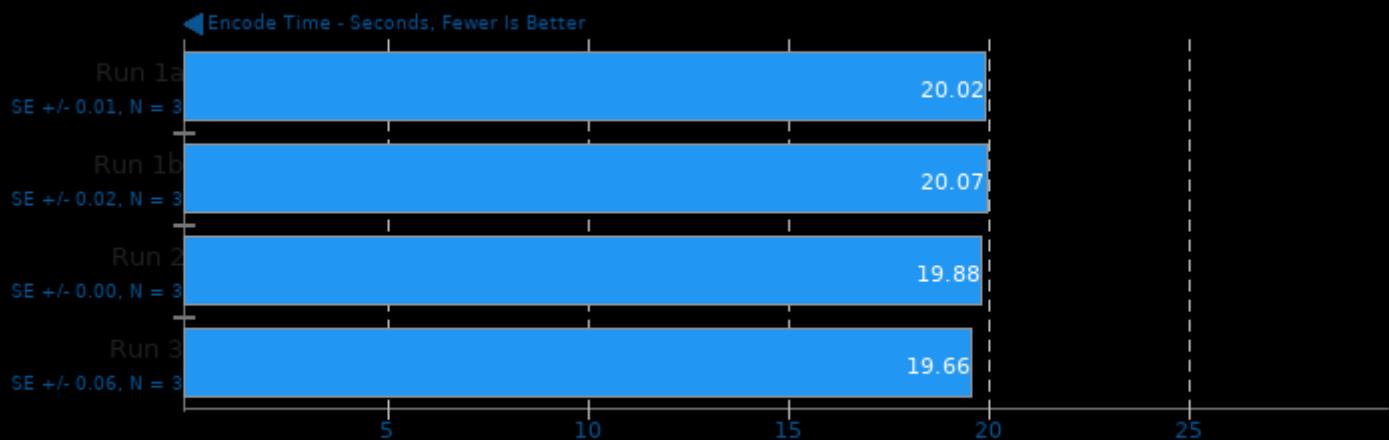
Encode Settings: Quality 100



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

WebP Image Encode 1.1

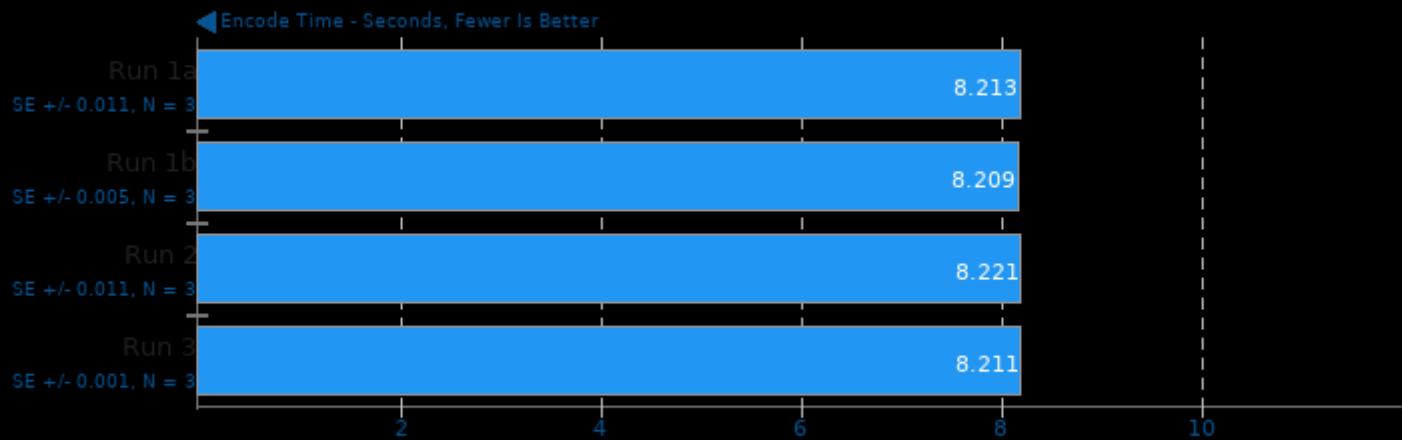
Encode Settings: Quality 100, Lossless



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

WebP Image Encode 1.1

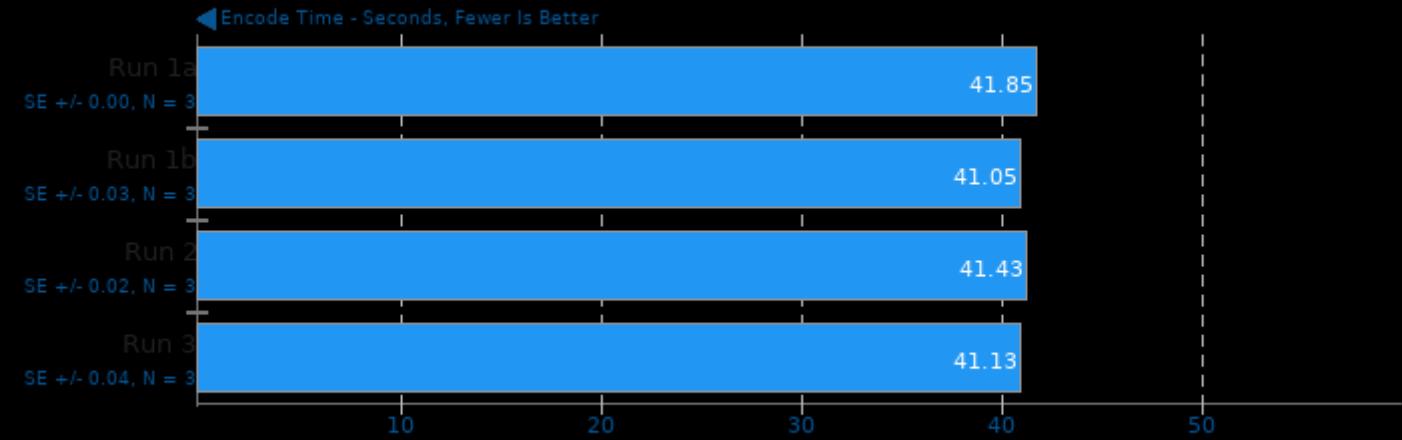
Encode Settings: Quality 100, Highest Compression



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

WebP Image Encode 1.1

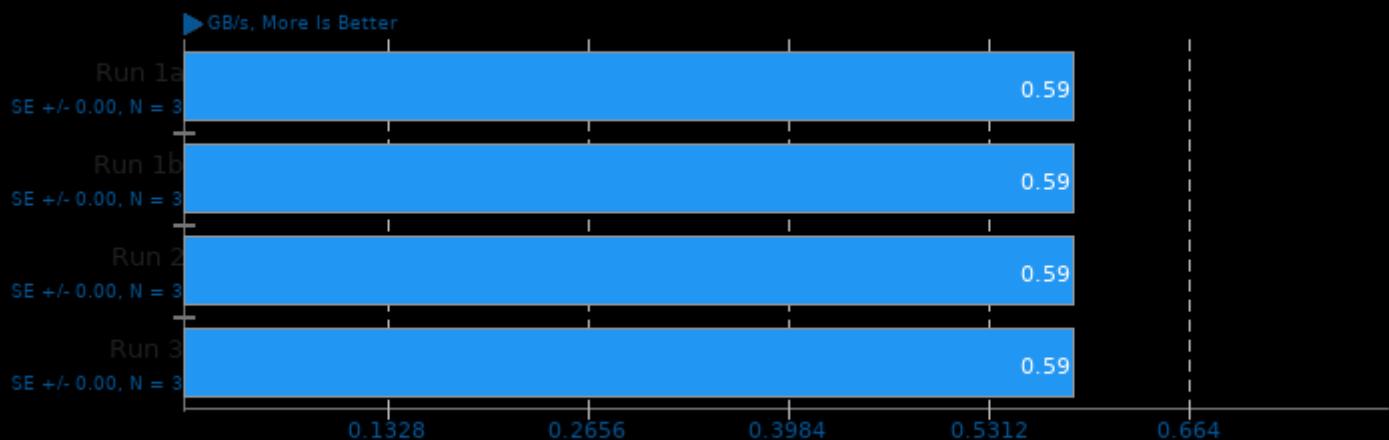
Encode Settings: Quality 100, Lossless, Highest Compression



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

simdjson 0.7.1

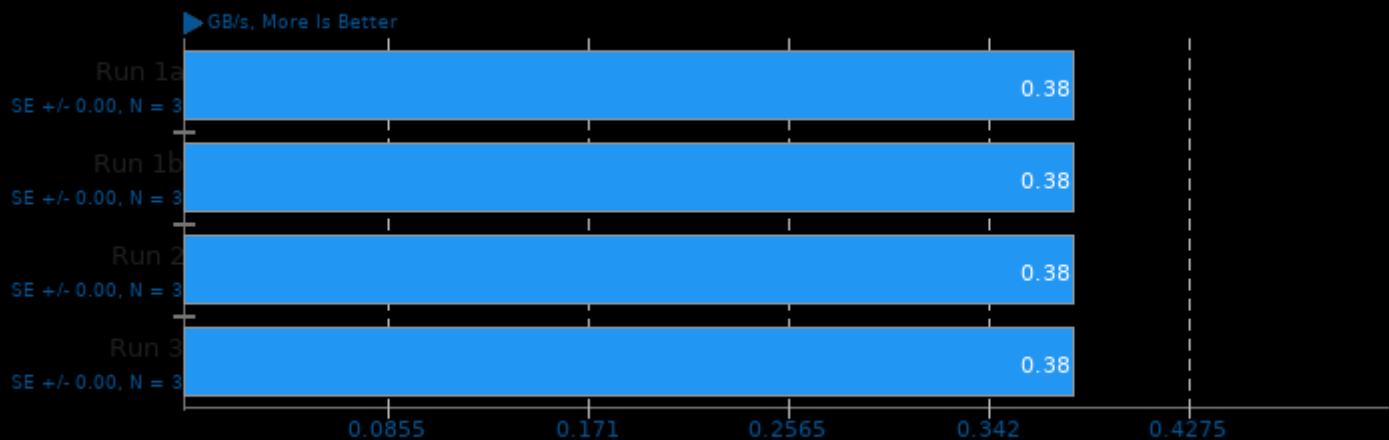
Throughput Test: Kostya



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

simdjson 0.7.1

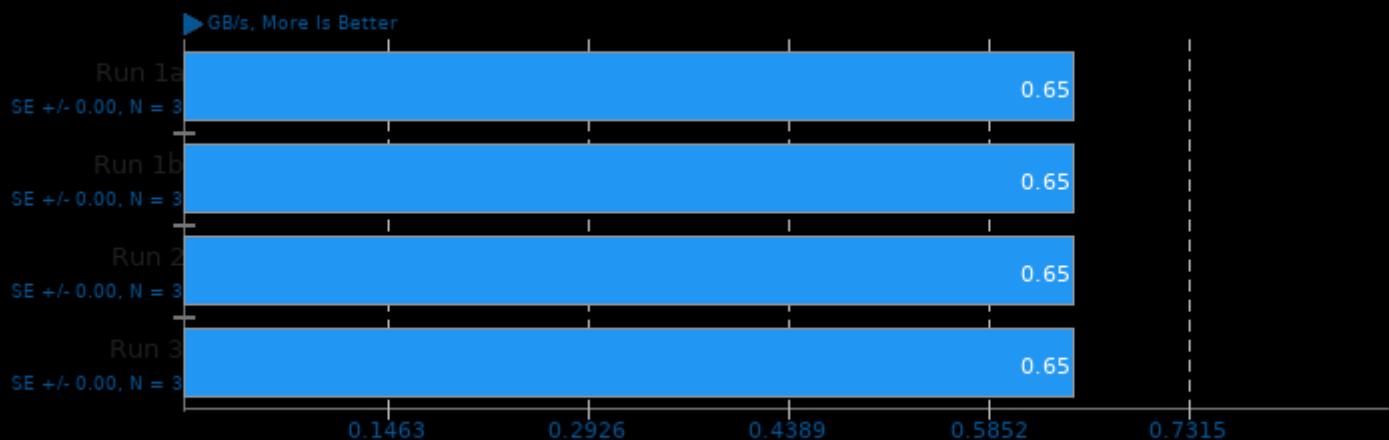
Throughput Test: LargeRandom



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

simdjson 0.7.1

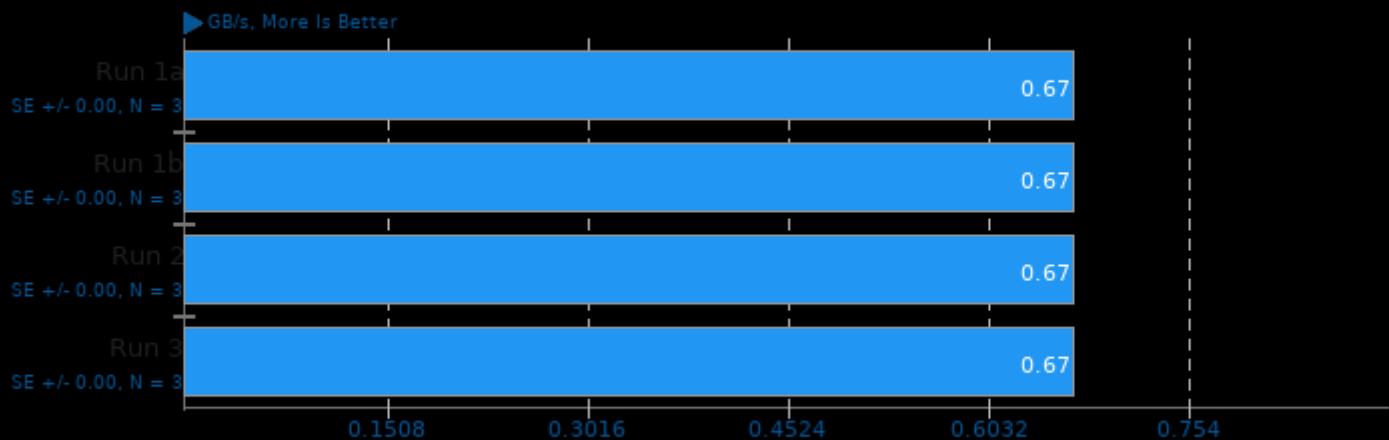
Throughput Test: PartialTweets



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

simdjson 0.7.1

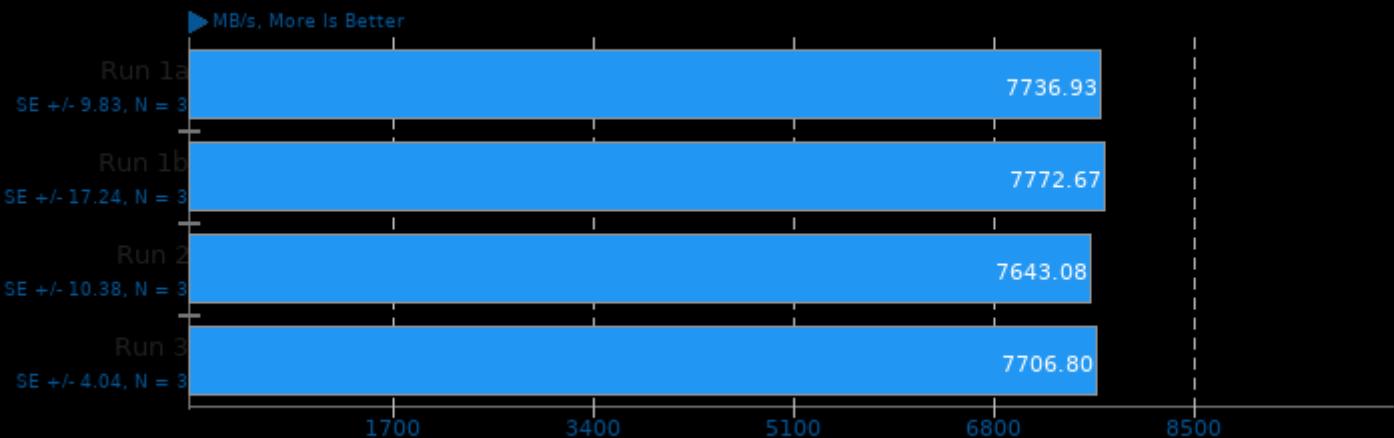
Throughput Test: DistinctUserID



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

LZ4 Compression 1.9.3

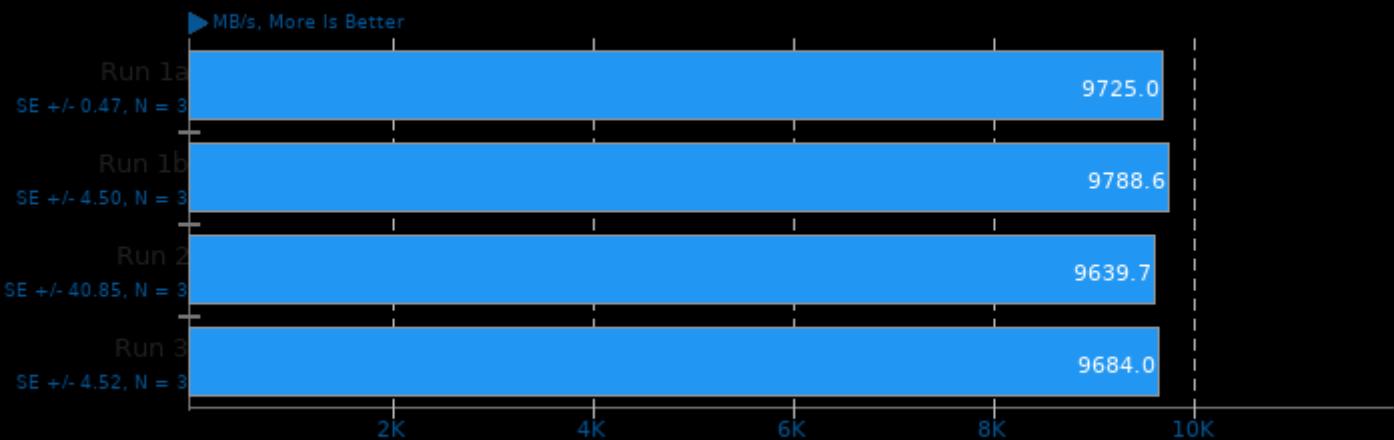
Compression Level: 1 - Compression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

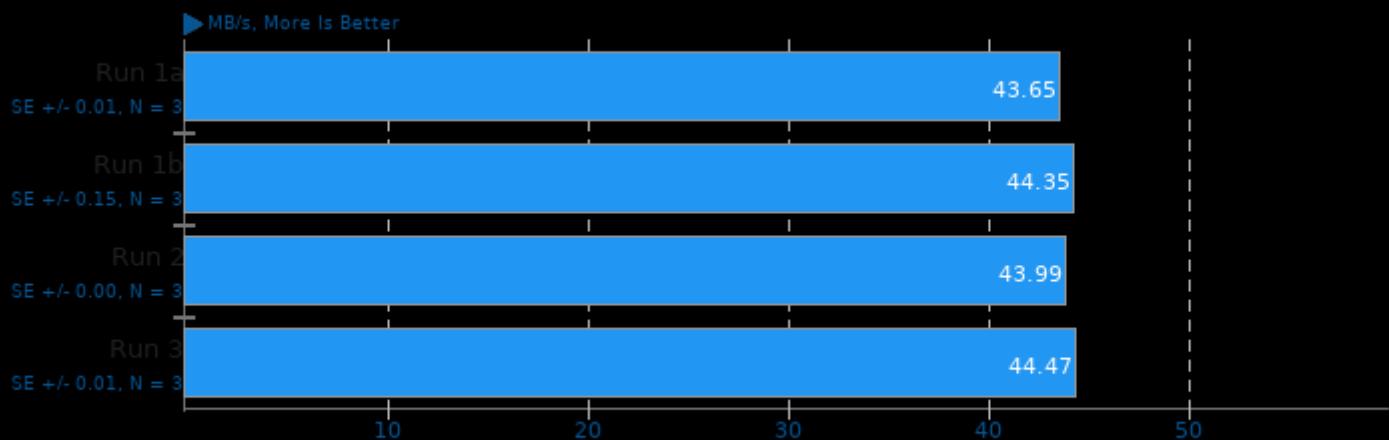
Compression Level: 1 - Decompression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

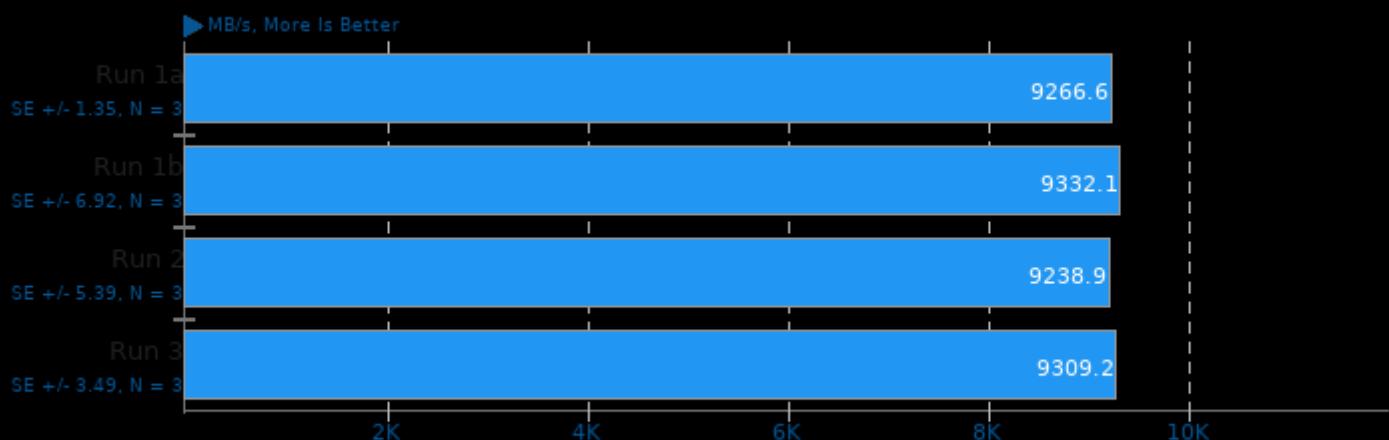
Compression Level: 3 - Compression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

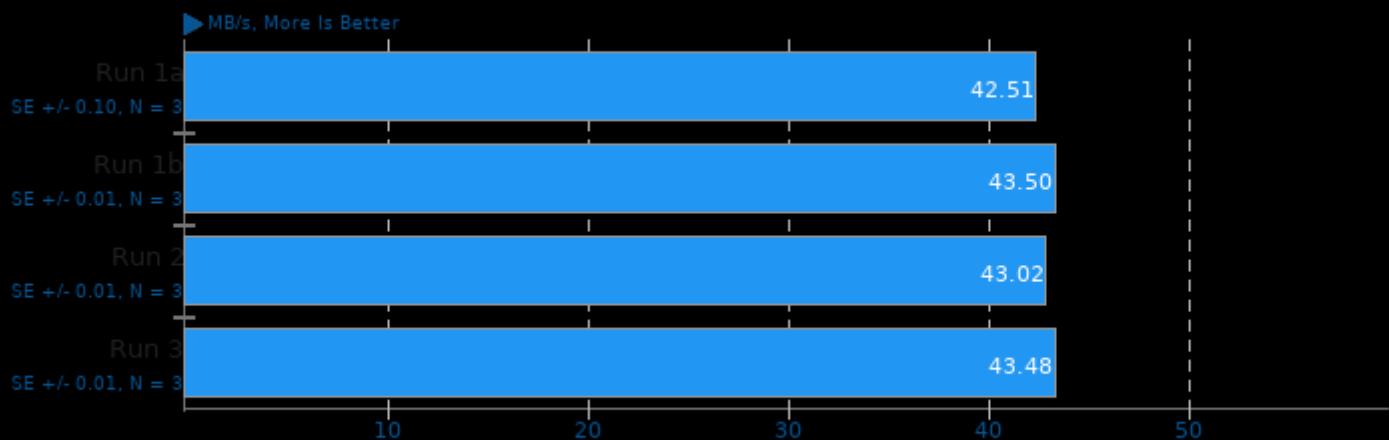
Compression Level: 3 - Decompression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

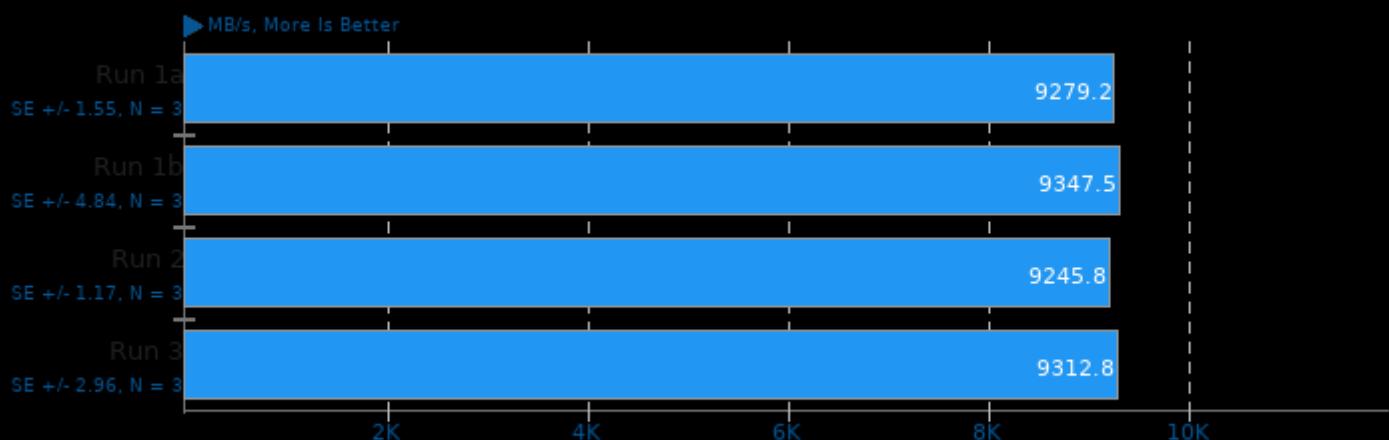
Compression Level: 9 - Compression Speed



1. (CC) gcc options: -O3

LZ4 Compression 1.9.3

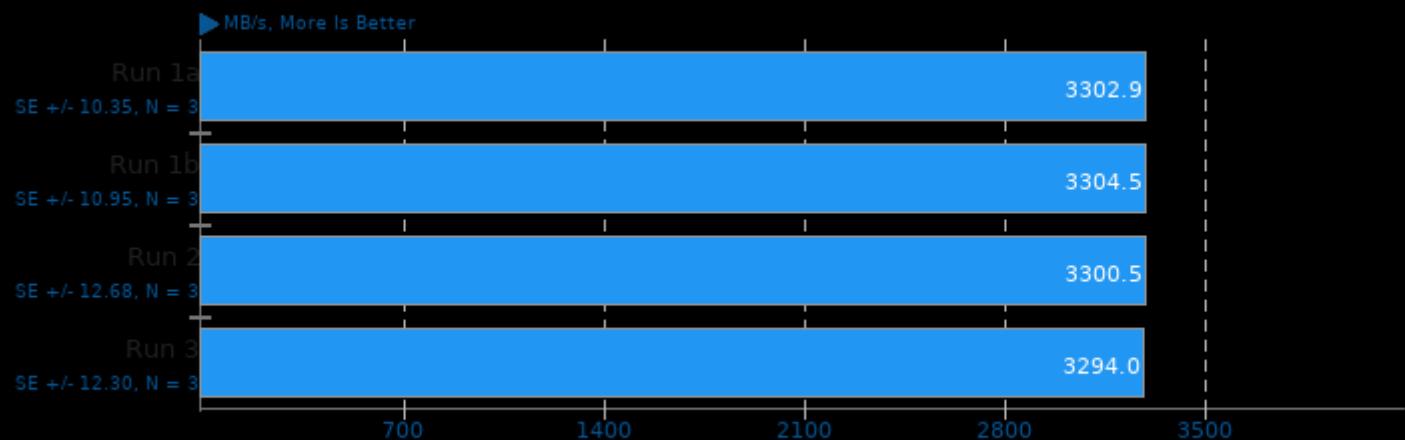
Compression Level: 9 - Decompression Speed



1. (CC) gcc options: -O3

Zstd Compression 1.4.5

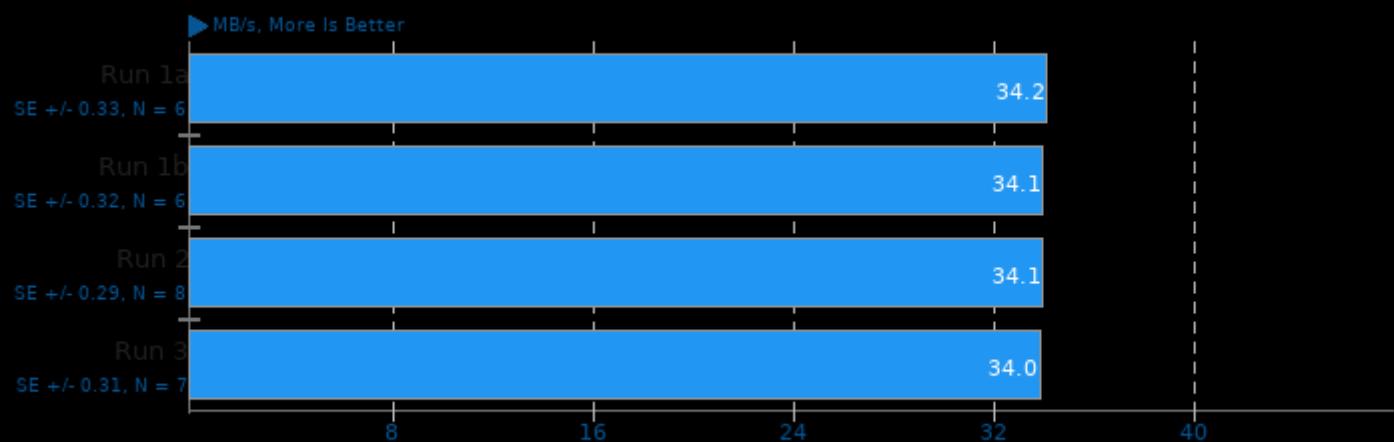
Compression Level: 3



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

Zstd Compression 1.4.5

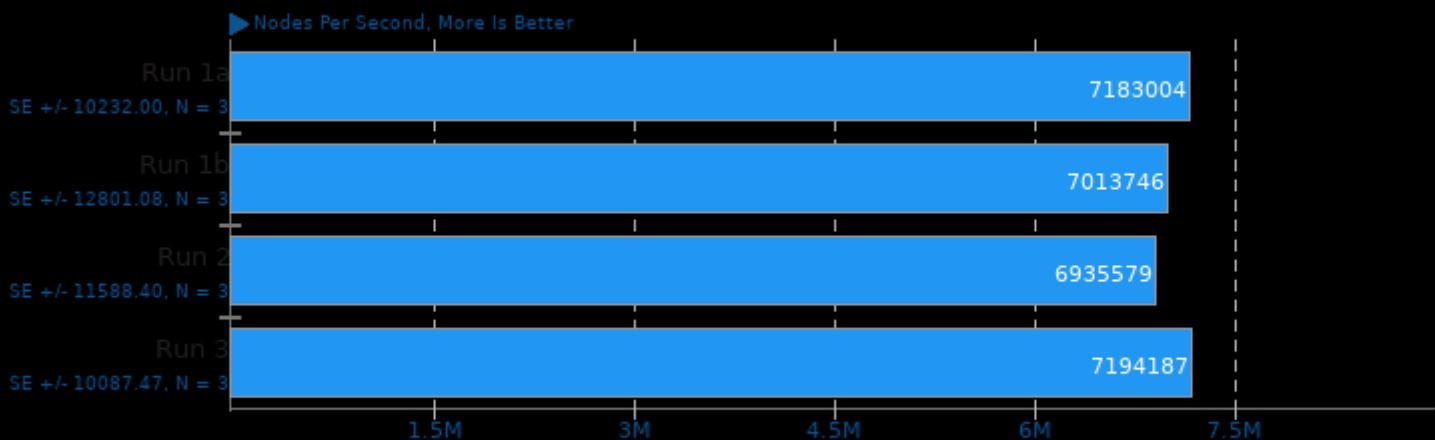
Compression Level: 19



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

Crafty 25.2

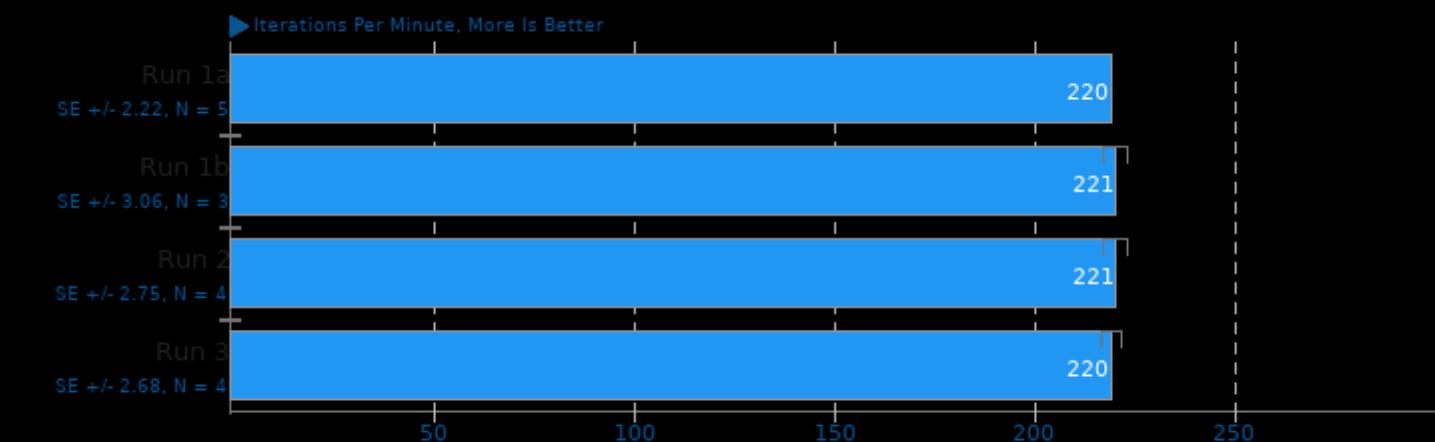
Elapsed Time



1. (CC) gcc options: -pthread -stdc++ -fprofile-use -lm

GraphicsMagick 1.3.33

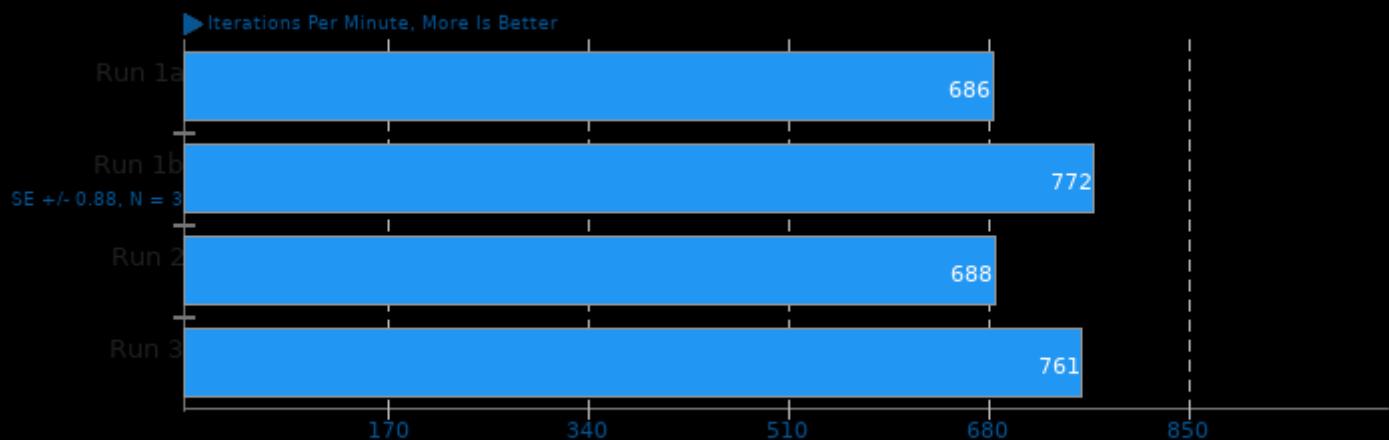
Operation: Swirl



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

GraphicsMagick 1.3.33

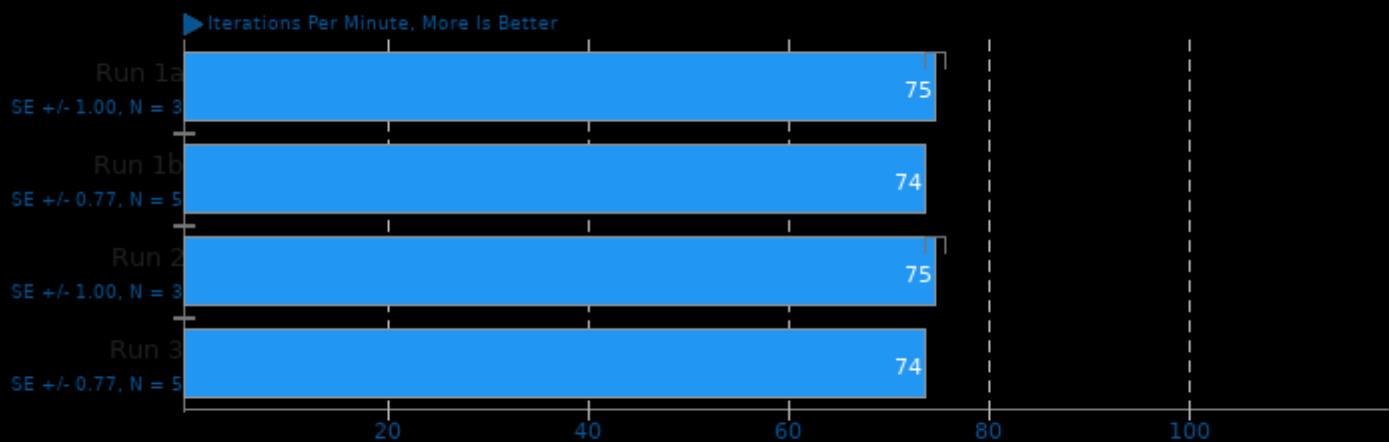
Operation: Rotate



1. (CC) gcc options: -fopenmp -O2 -pthread -lbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lzma -lbz2 -lz -lm -lpthread

GraphicsMagick 1.3.33

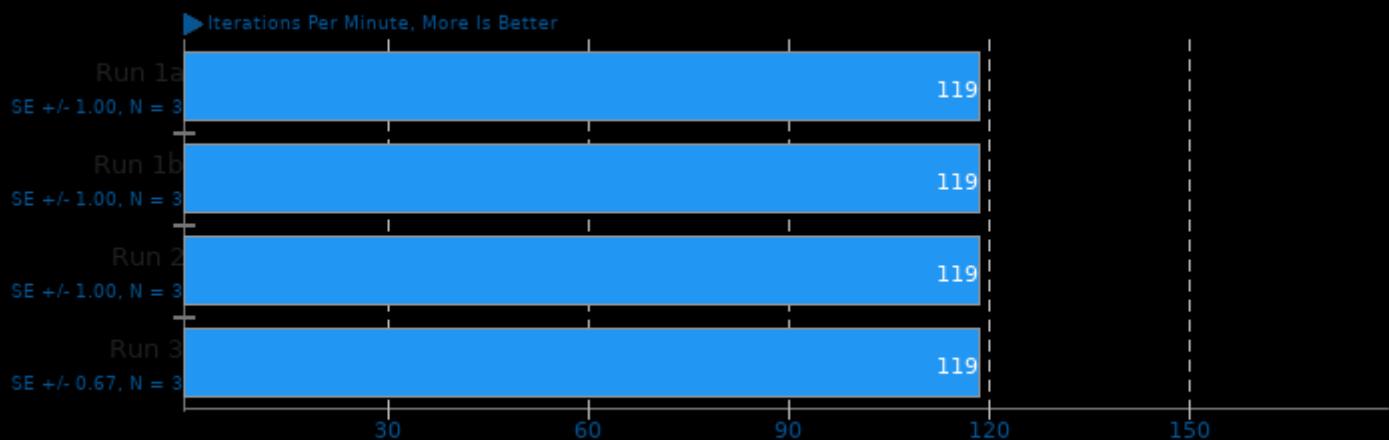
Operation: Sharpen



1. (CC) gcc options: -fopenmp -O2 -pthread -lbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lzma -lbz2 -lz -lm -lpthread

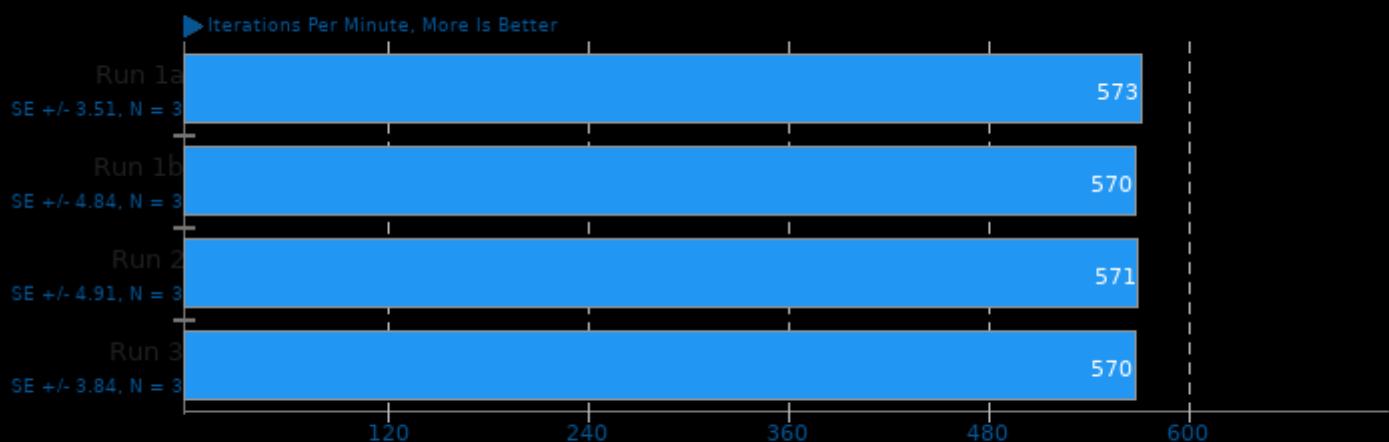
GraphicsMagick 1.3.33

Operation: Enhanced



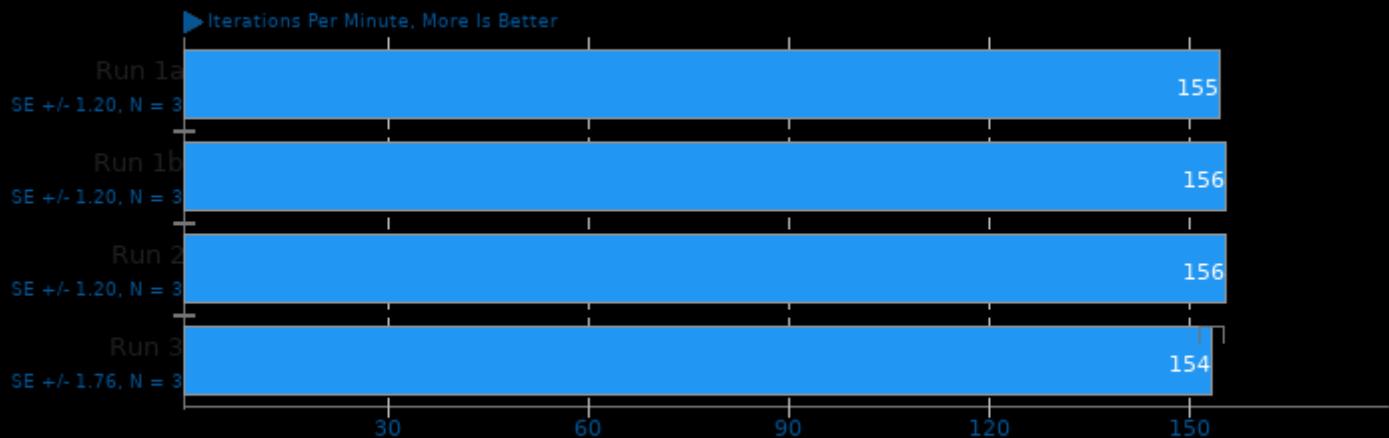
GraphicsMagick 1.3.33

Operation: Resizing



GraphicsMagick 1.3.33

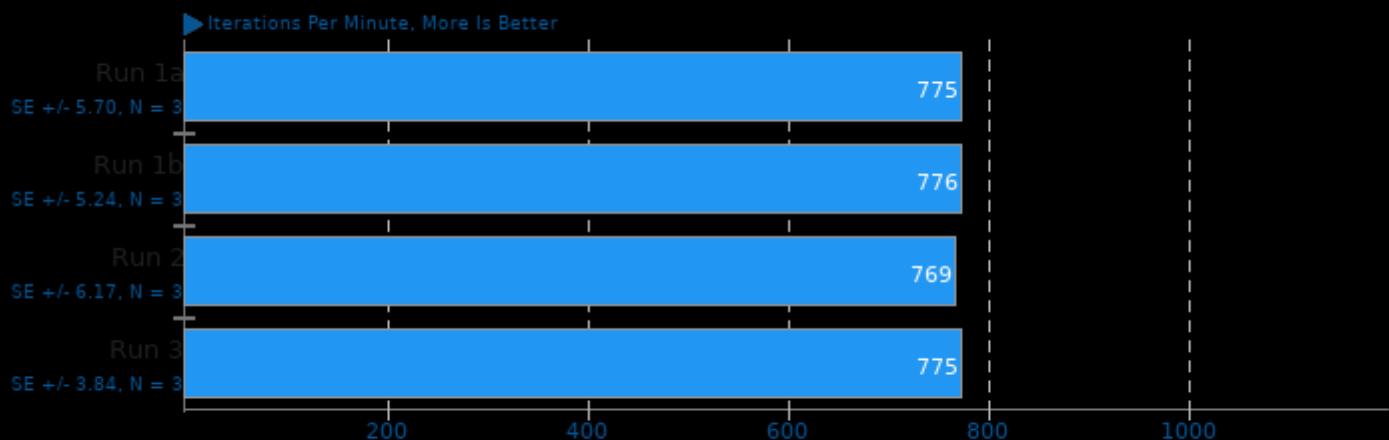
Operation: Noise-Gaussian



1. (CC) gcc options: -fopenmp -O2 -pthread -lbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lzma -lbz2 -lz -lm -lpthread

GraphicsMagick 1.3.33

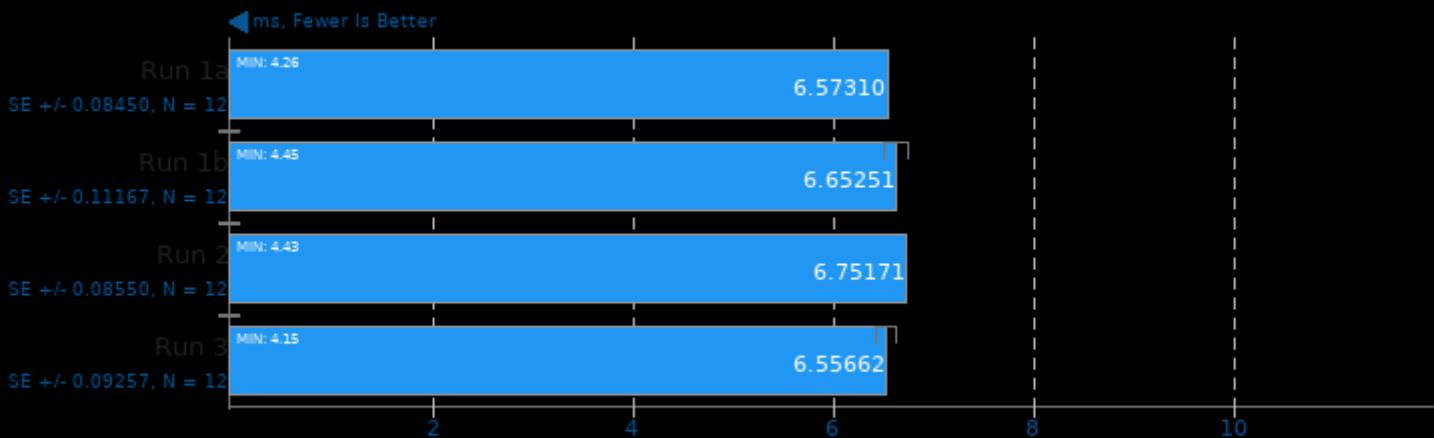
Operation: HWB Color Space



1. (CC) gcc options: -fopenmp -O2 -pthread -lbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lzma -lbz2 -lz -lm -lpthread

oneDNN 2.0

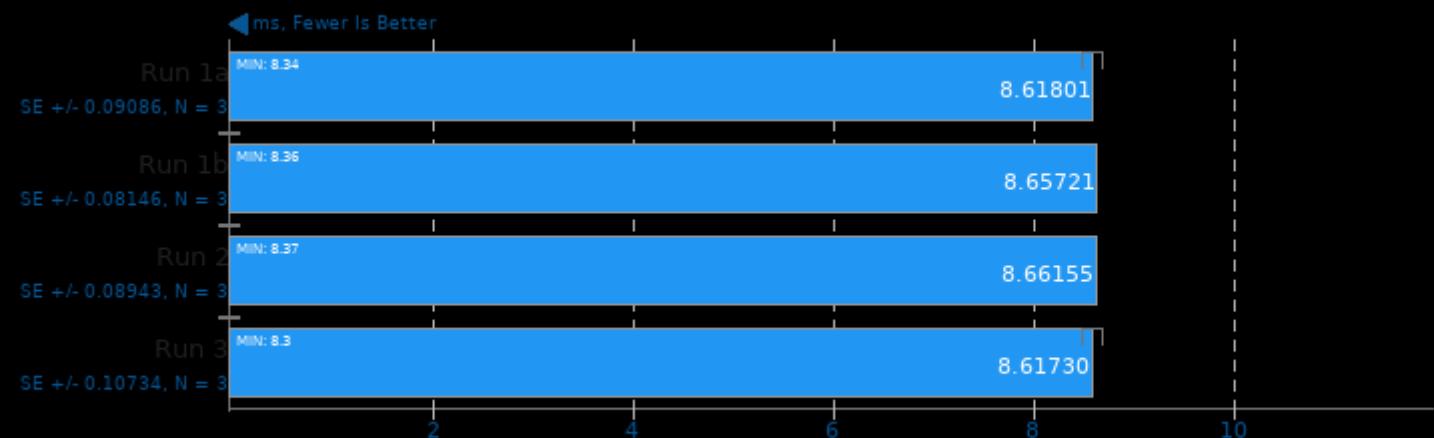
Harness: IP Shapes 1D - Data Type: f32 - Engine: CPU



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

oneDNN 2.0

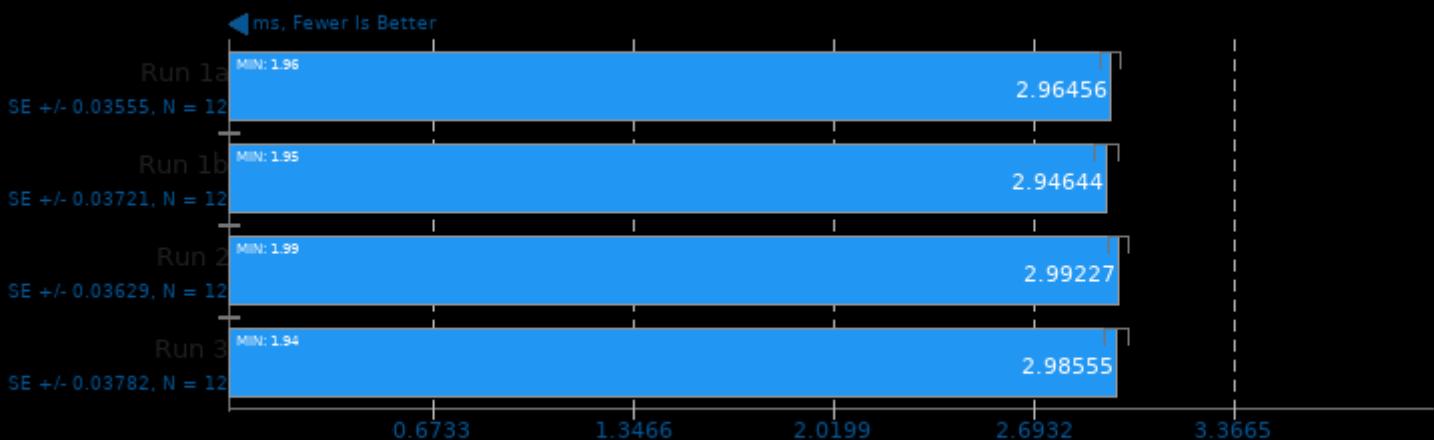
Harness: IP Shapes 3D - Data Type: f32 - Engine: CPU



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

oneDNN 2.0

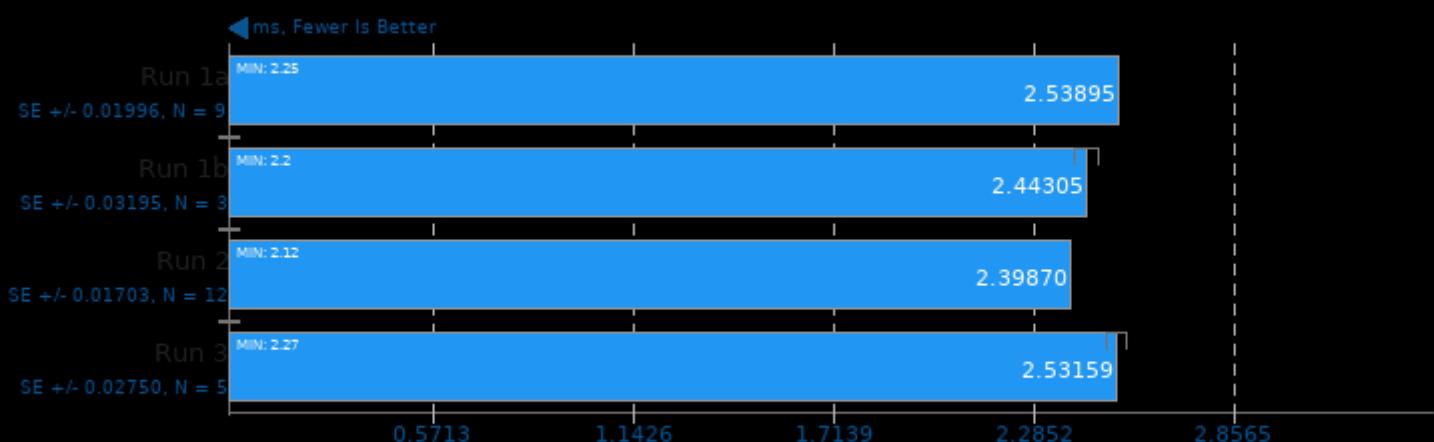
Harness: IP Shapes 1D - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 2.0

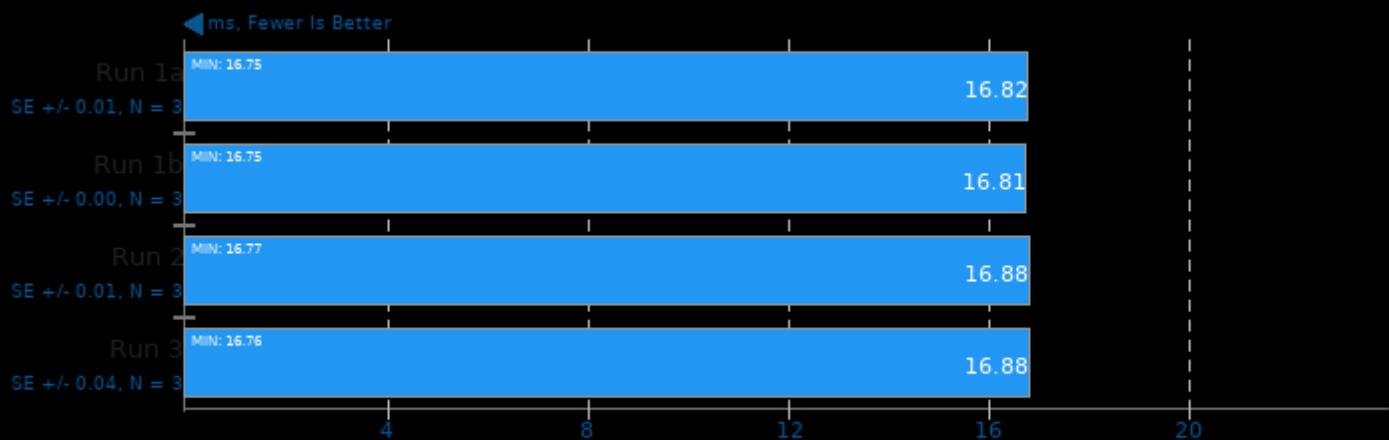
Harness: IP Shapes 3D - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 2.0

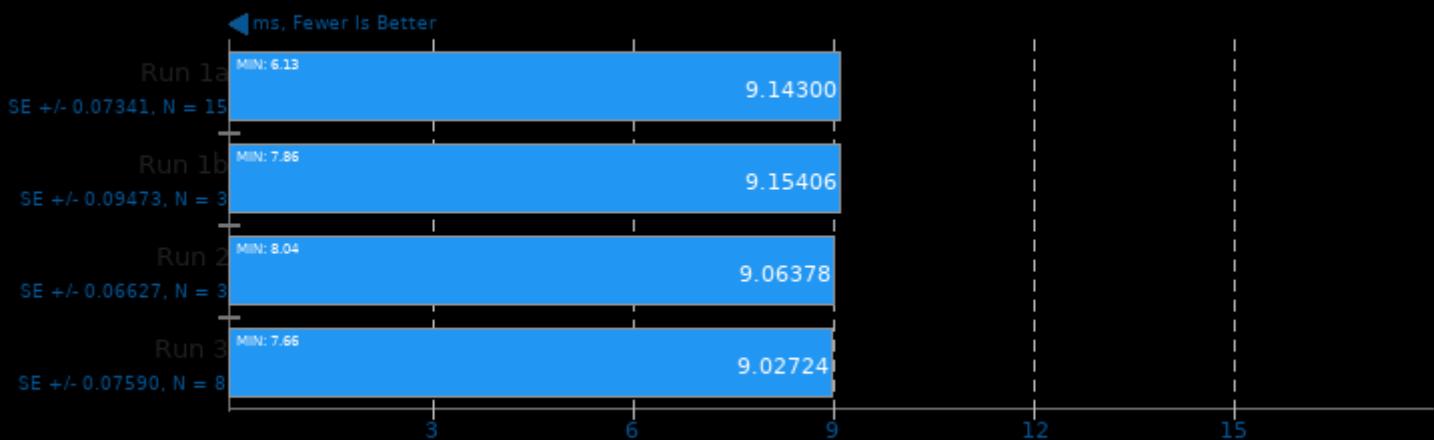
Harness: Convolution Batch Shapes Auto - Data Type: f32 - Engine: CPU



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

oneDNN 2.0

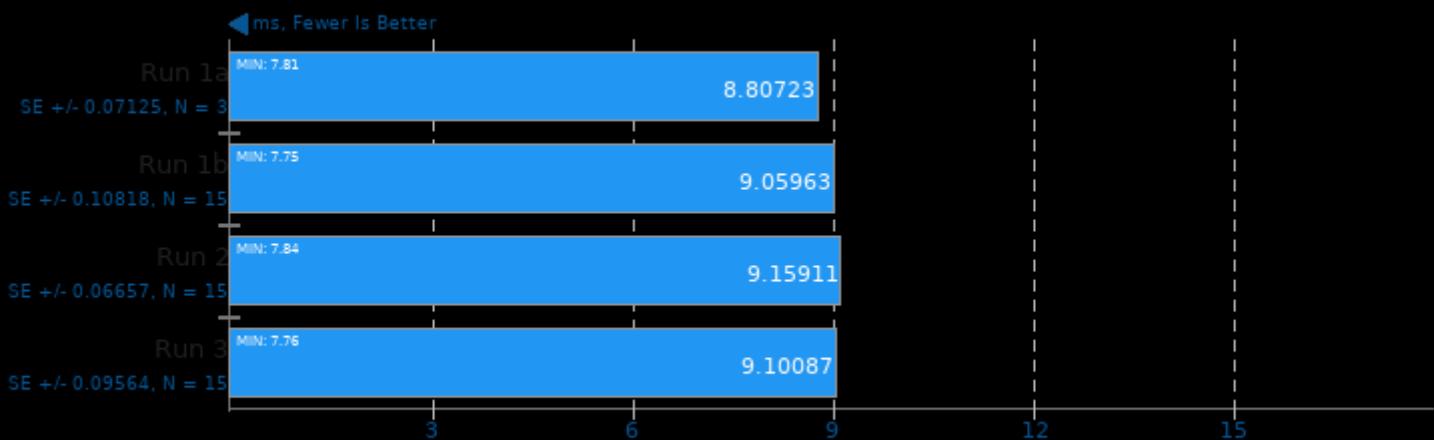
Harness: Deconvolution Batch shapes_1d - Data Type: f32 - Engine: CPU



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

oneDNN 2.0

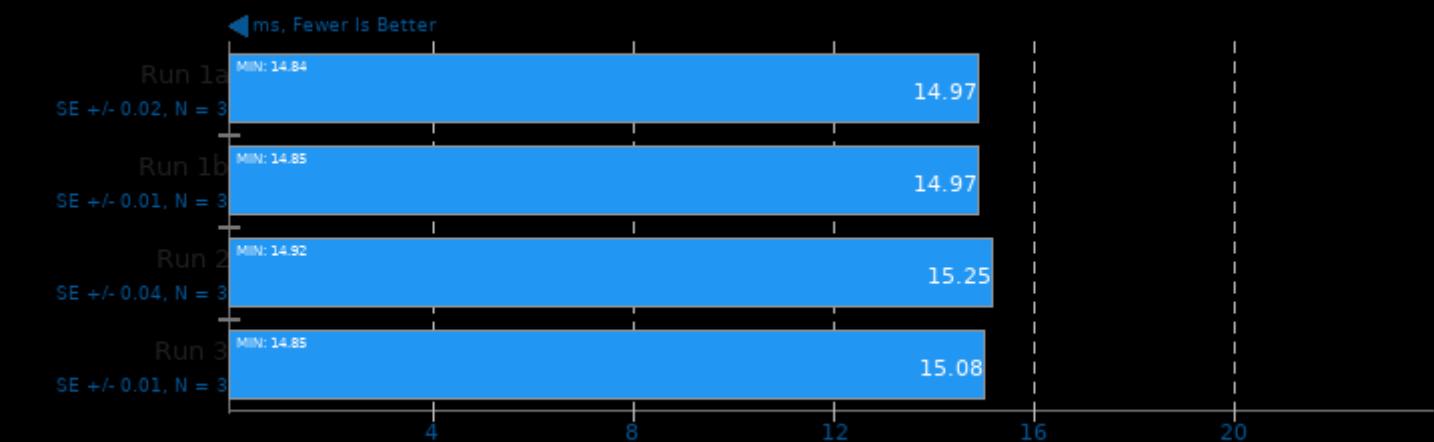
Harness: Deconvolution Batch shapes_3d - Data Type: f32 - Engine: CPU



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

oneDNN 2.0

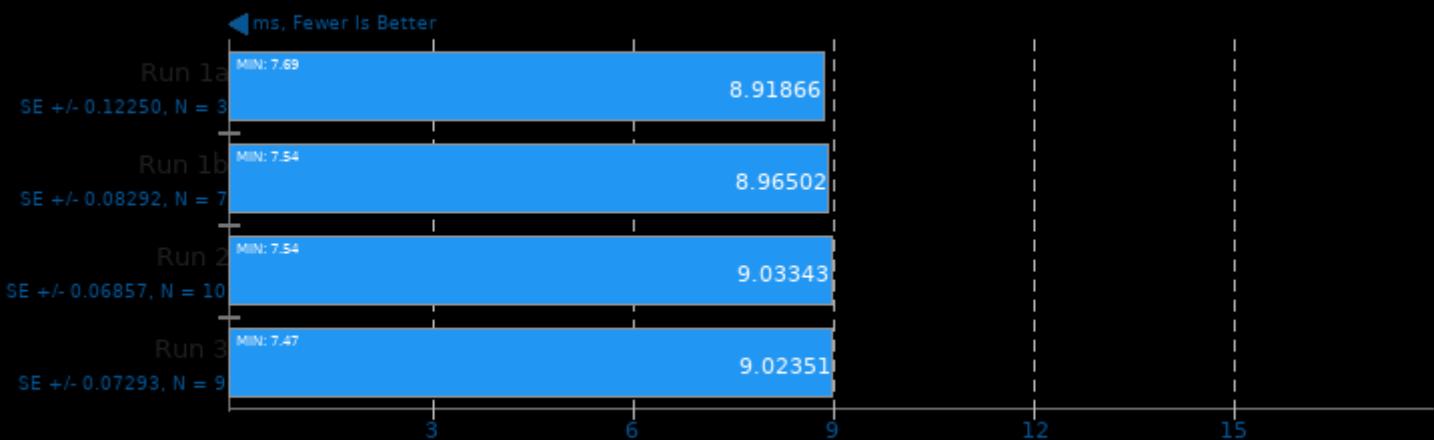
Harness: Convolution Batch Shapes Auto - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 2.0

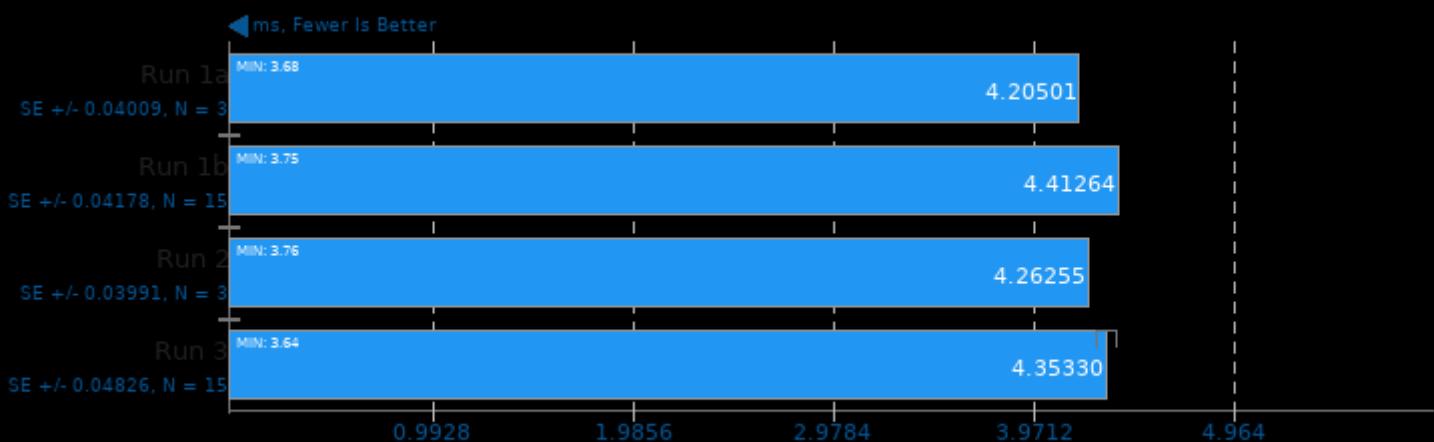
Harness: Deconvolution Batch shapes_1d - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 2.0

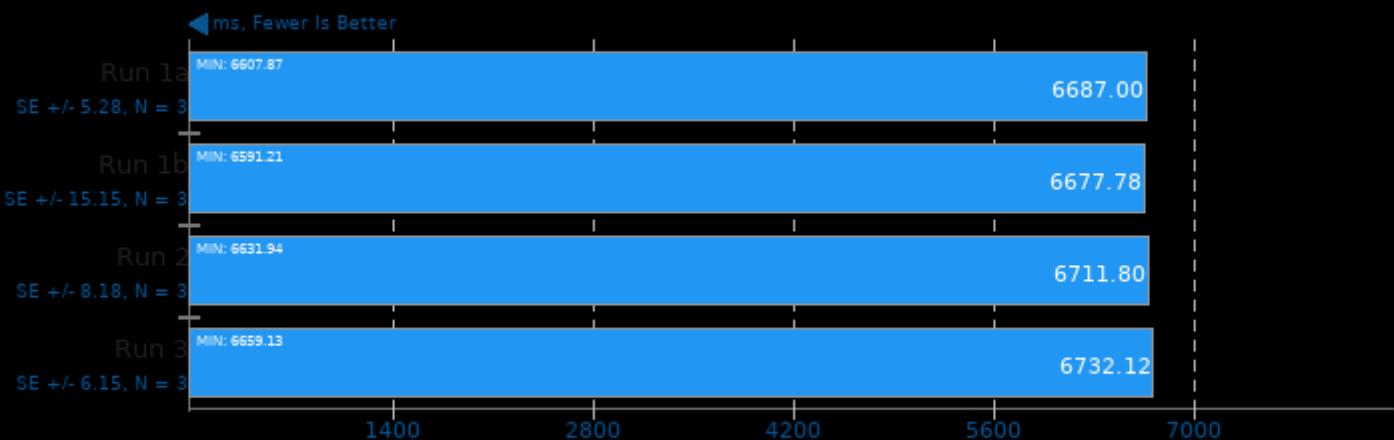
Harness: Deconvolution Batch shapes_3d - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 2.0

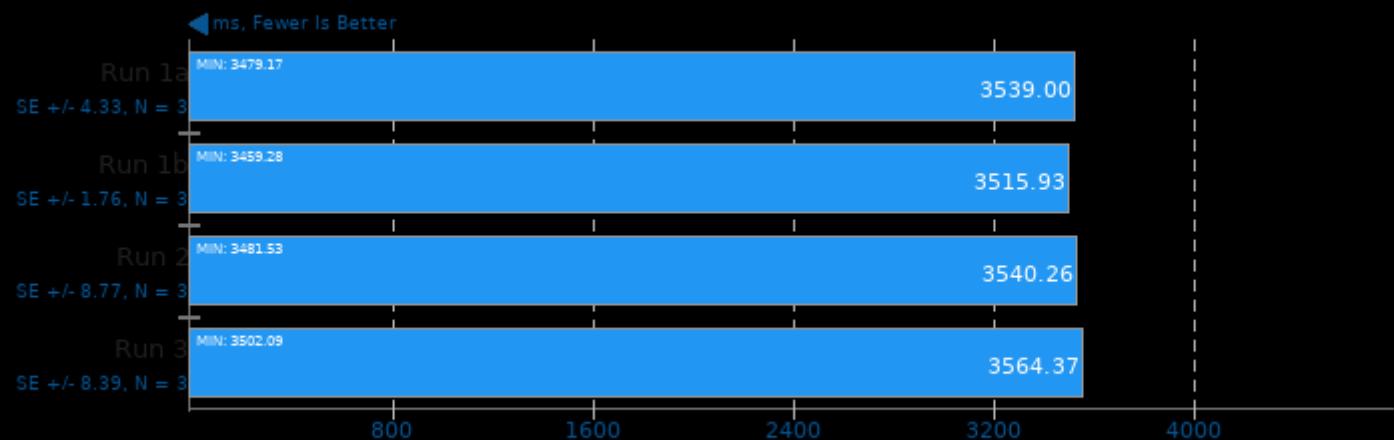
Harness: Recurrent Neural Network Training - Data Type: f32 - Engine: CPU



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

oneDNN 2.0

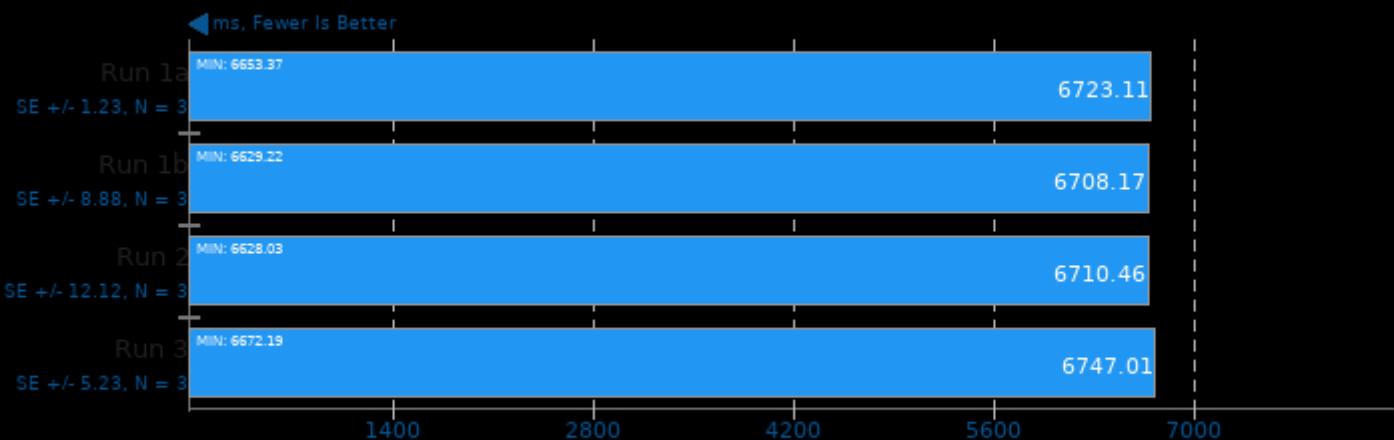
Harness: Recurrent Neural Network Inference - Data Type: f32 - Engine: CPU



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

oneDNN 2.0

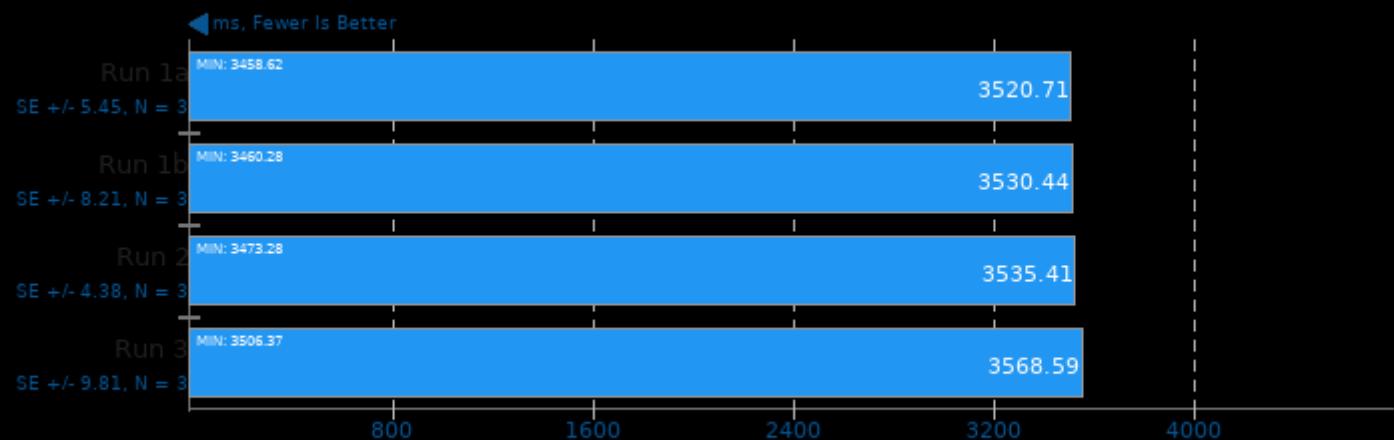
Harness: Recurrent Neural Network Training - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 2.0

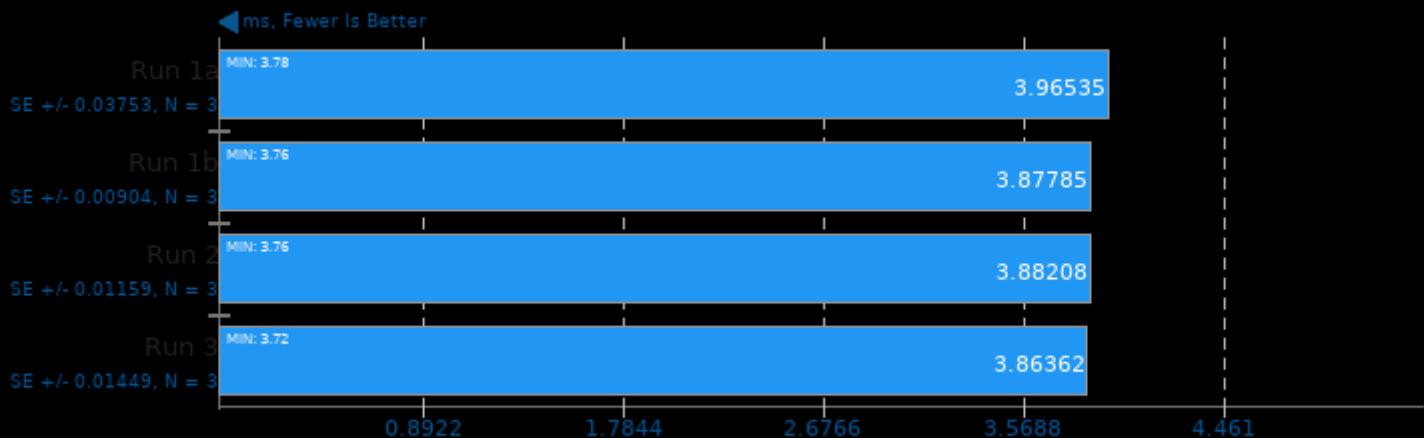
Harness: Recurrent Neural Network Inference - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 2.0

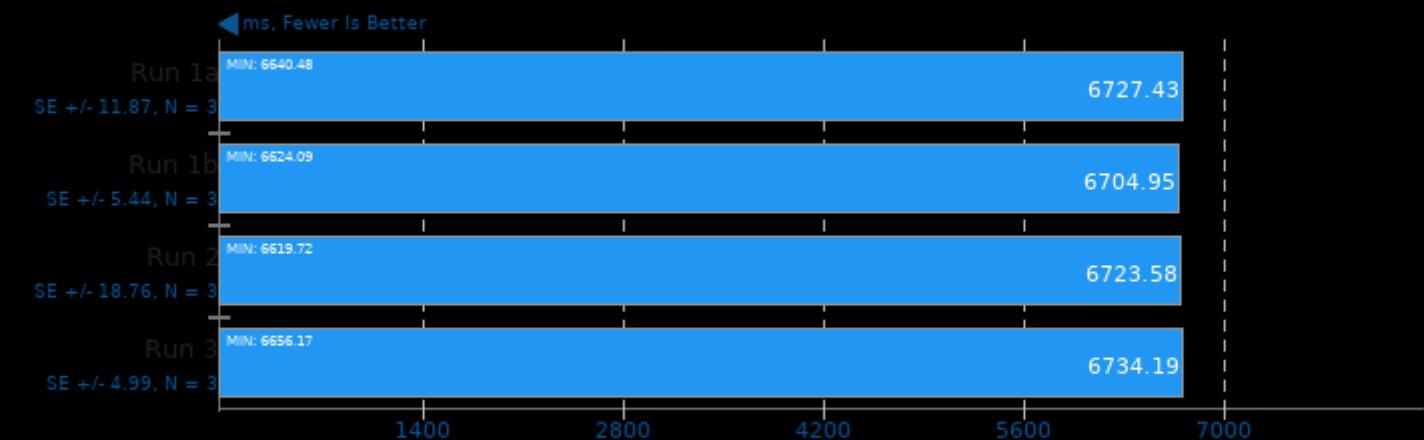
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: f32 - Engine: CPU



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

oneDNN 2.0

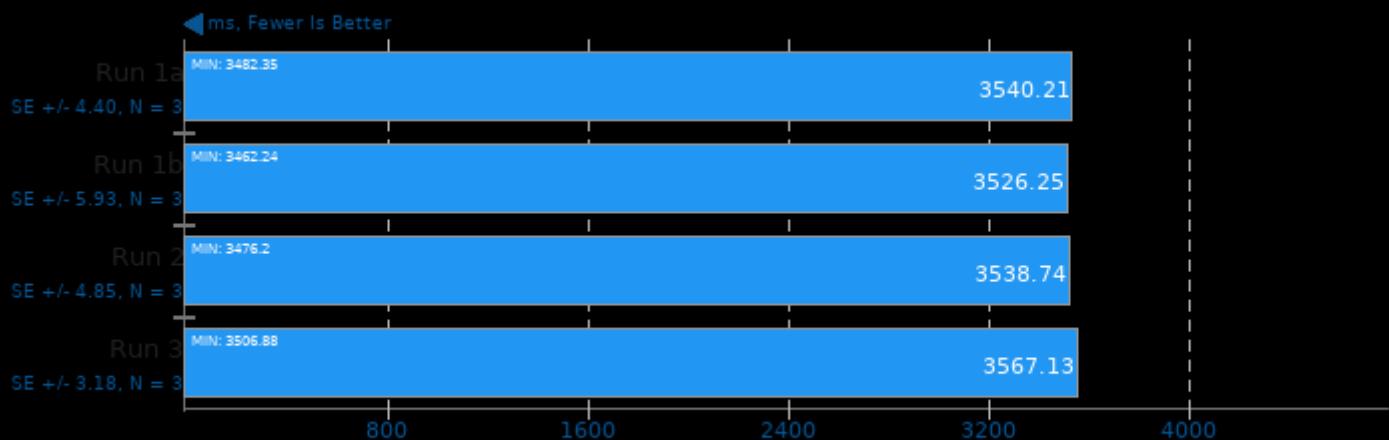
Harness: Recurrent Neural Network Training - Data Type: bf16bf16bf16 - Engine: CPU



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

oneDNN 2.0

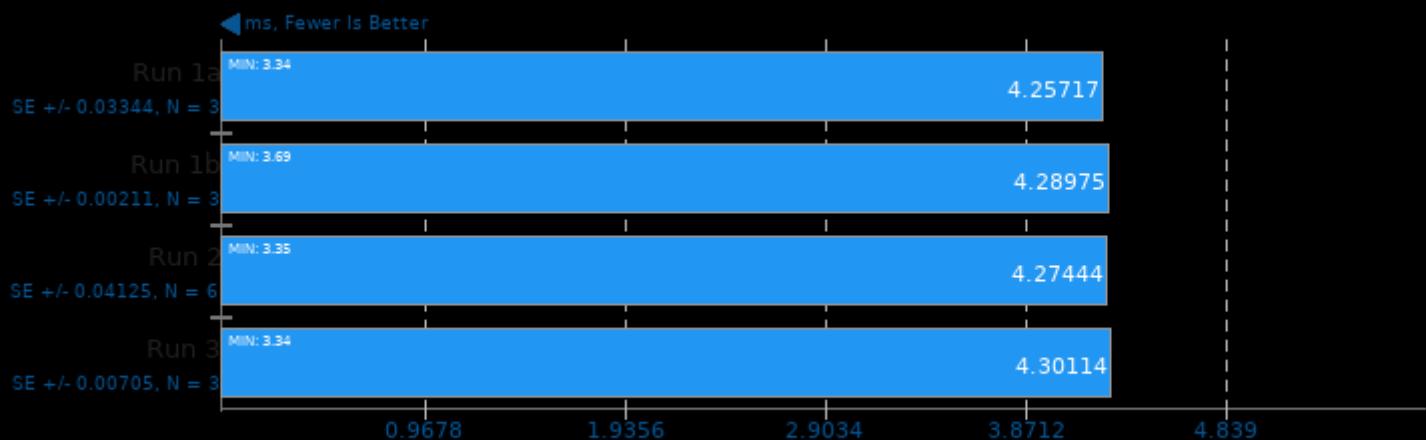
Harness: Recurrent Neural Network Inference - Data Type: bf16bf16bf16 - Engine: CPU



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

oneDNN 2.0

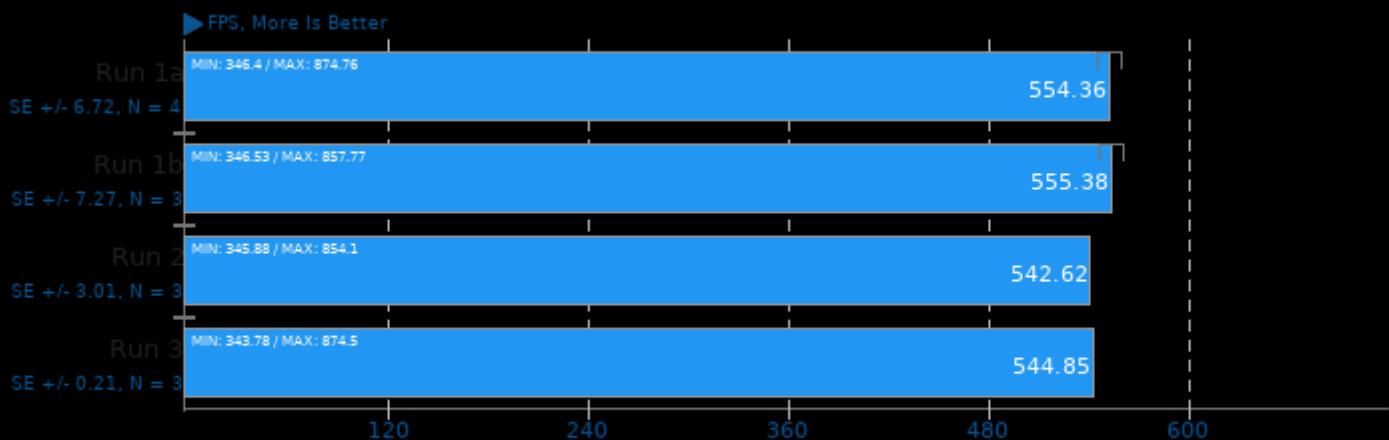
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: u8s8f32 - Engine: CPU



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

dav1d 0.8.1

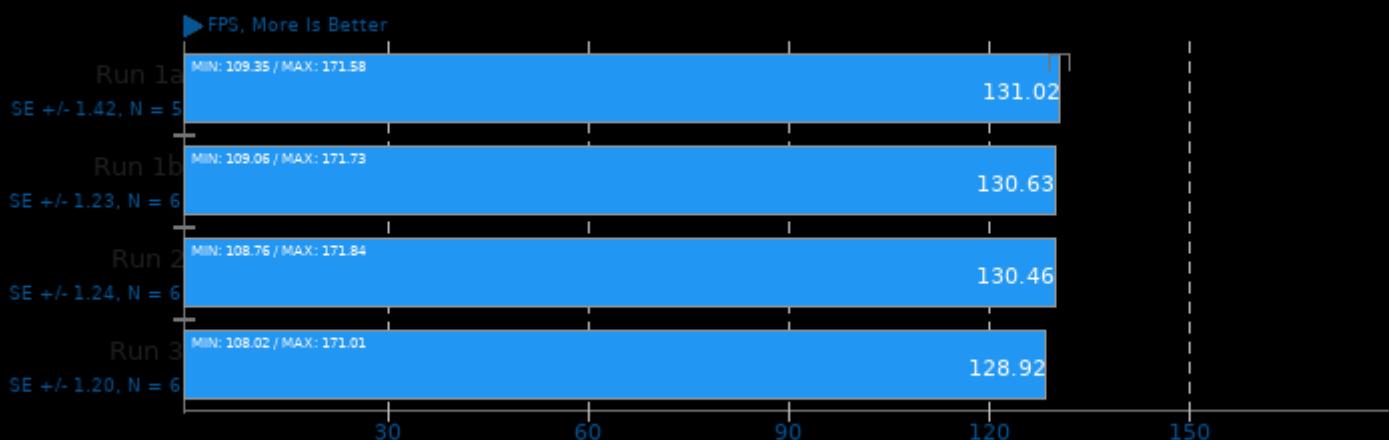
Video Input: Chimera 1080p



1. (CC) gcc options: -pthread

dav1d 0.8.1

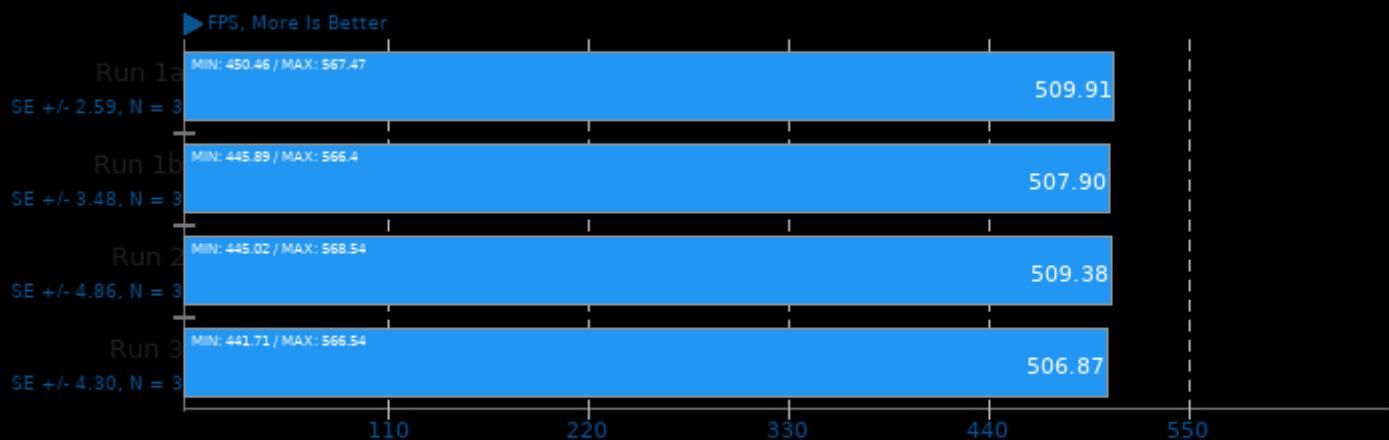
Video Input: Summer Nature 4K



1. (CC) gcc options: -pthread

dav1d 0.8.1

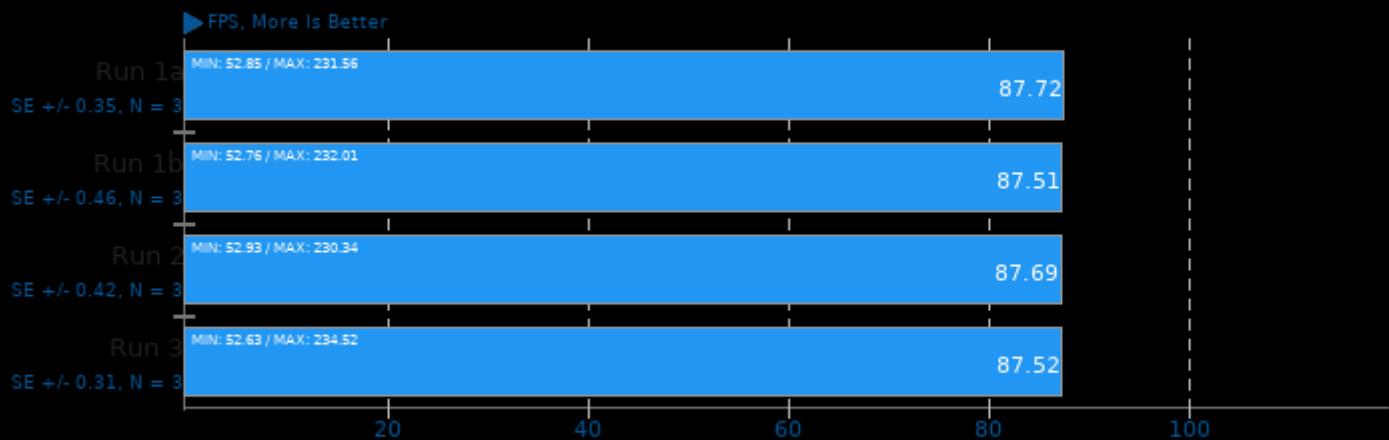
Video Input: Summer Nature 1080p



1. (CC) gcc options: -pthread

dav1d 0.8.1

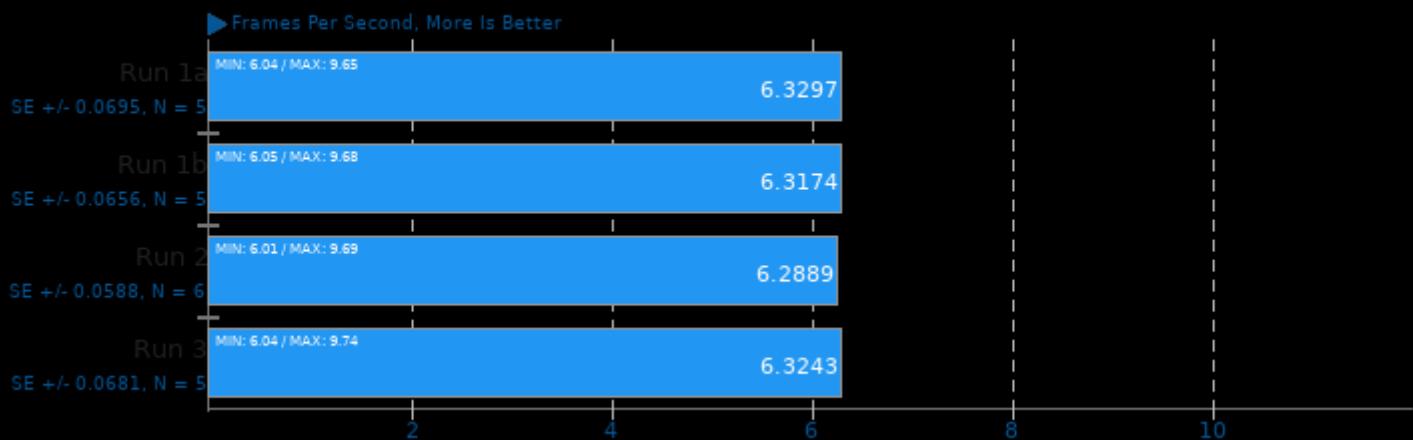
Video Input: Chimera 1080p 10-bit



1. (CC) gcc options: -pthread

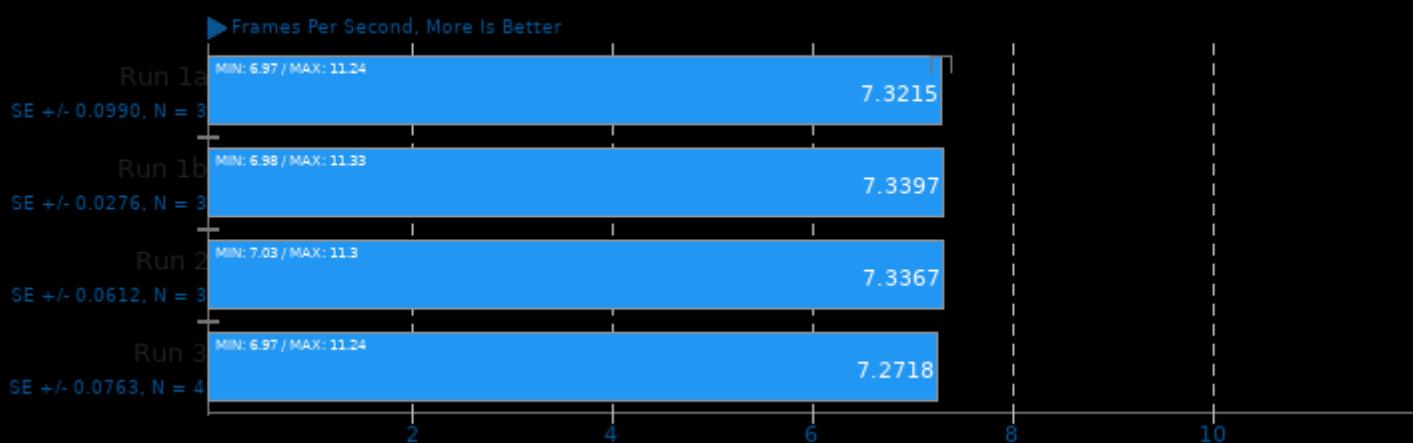
Embree 3.9.0

Binary: Pathtracer - Model: Crown



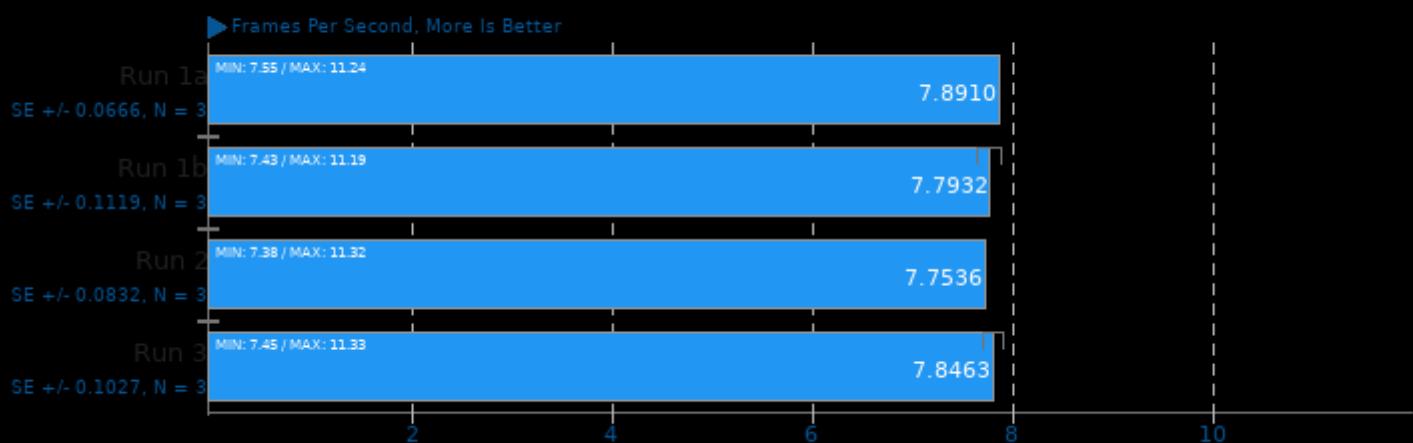
Embree 3.9.0

Binary: Pathtracer ISPC - Model: Crown



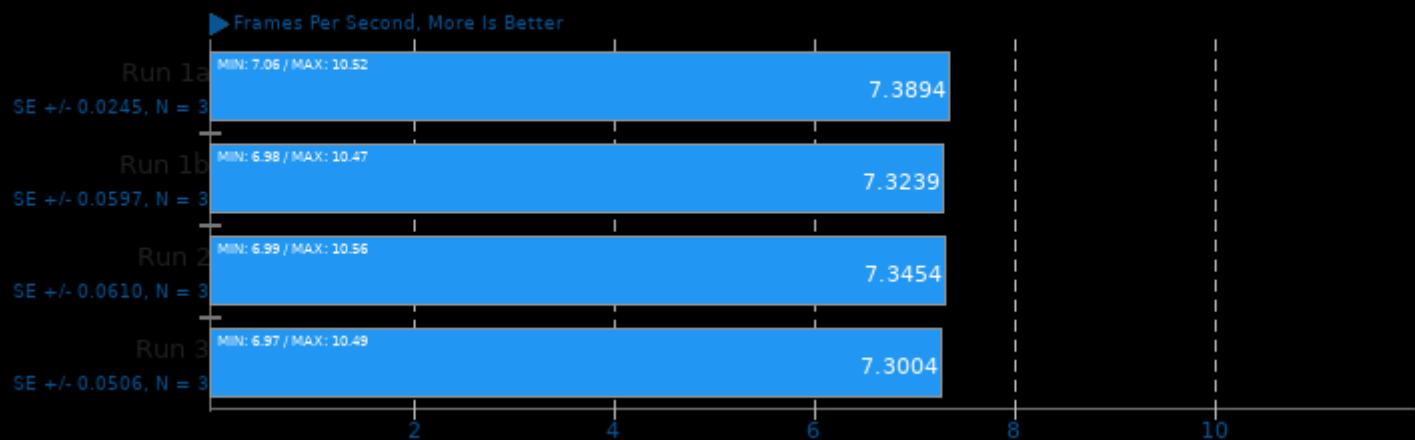
Embree 3.9.0

Binary: Pathtracer - Model: Asian Dragon



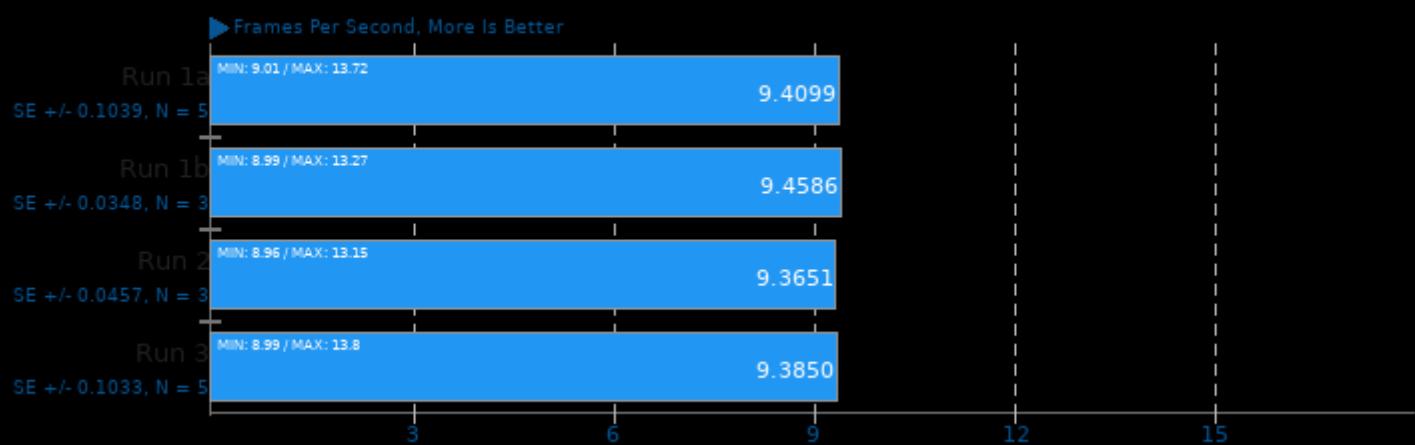
Embree 3.9.0

Binary: Pathtracer - Model: Asian Dragon Obj



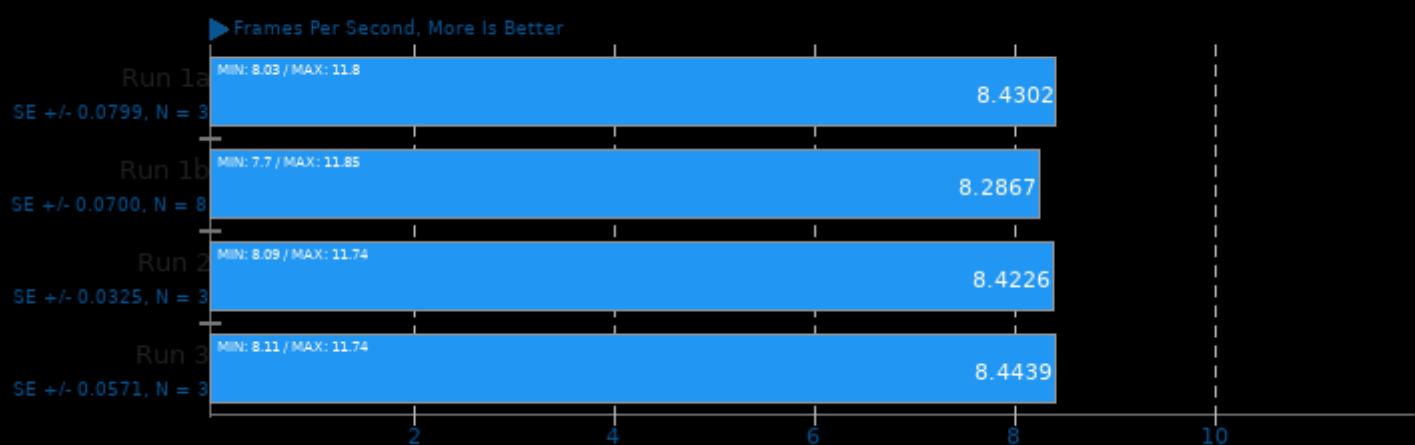
Embree 3.9.0

Binary: Pathtracer ISPC - Model: Asian Dragon



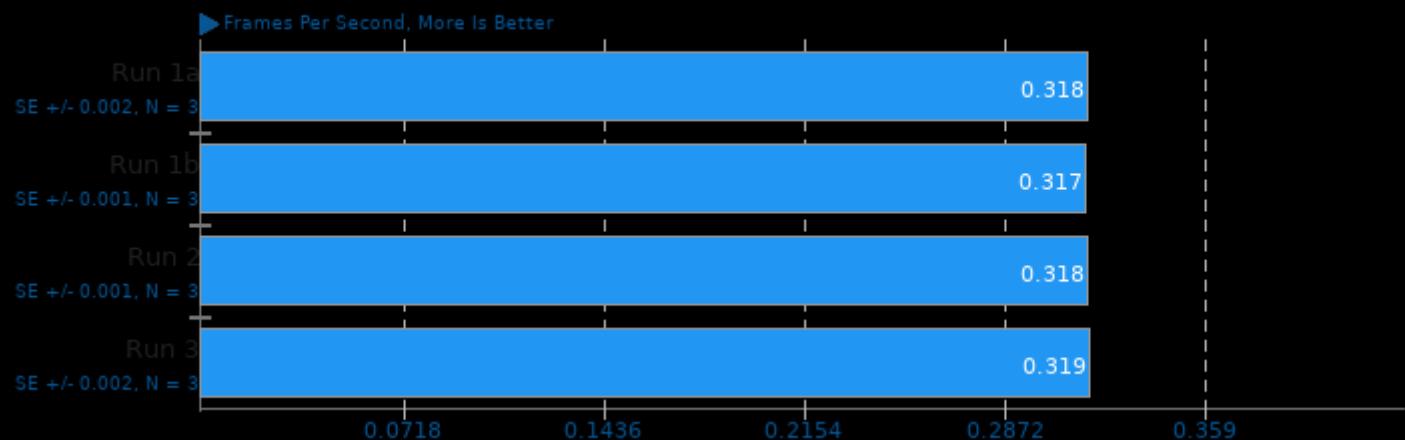
Embree 3.9.0

Binary: Pathtracer ISPC - Model: Asian Dragon Obj

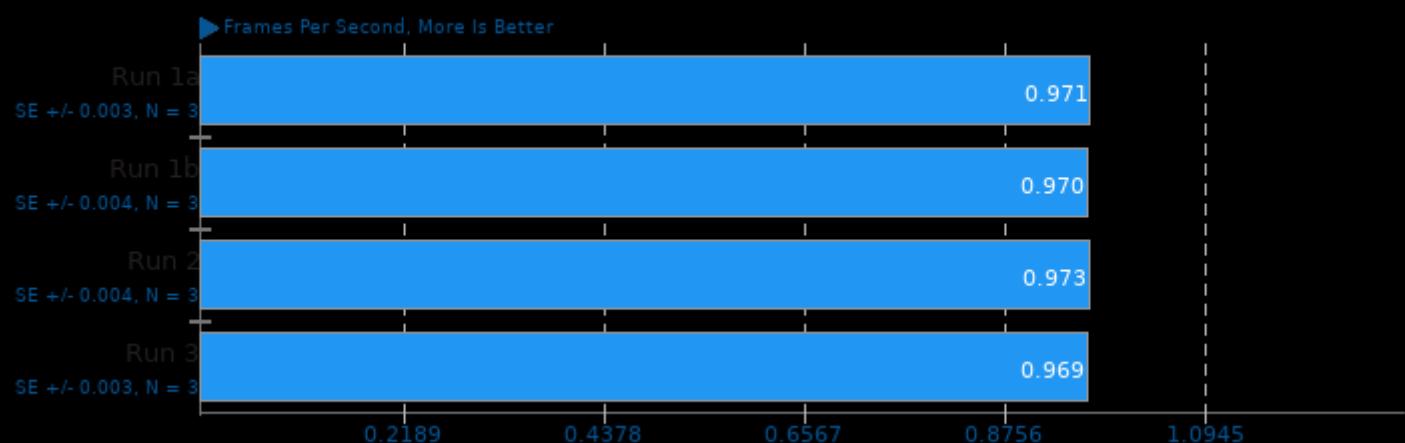


rav1e 0.4 Alpha

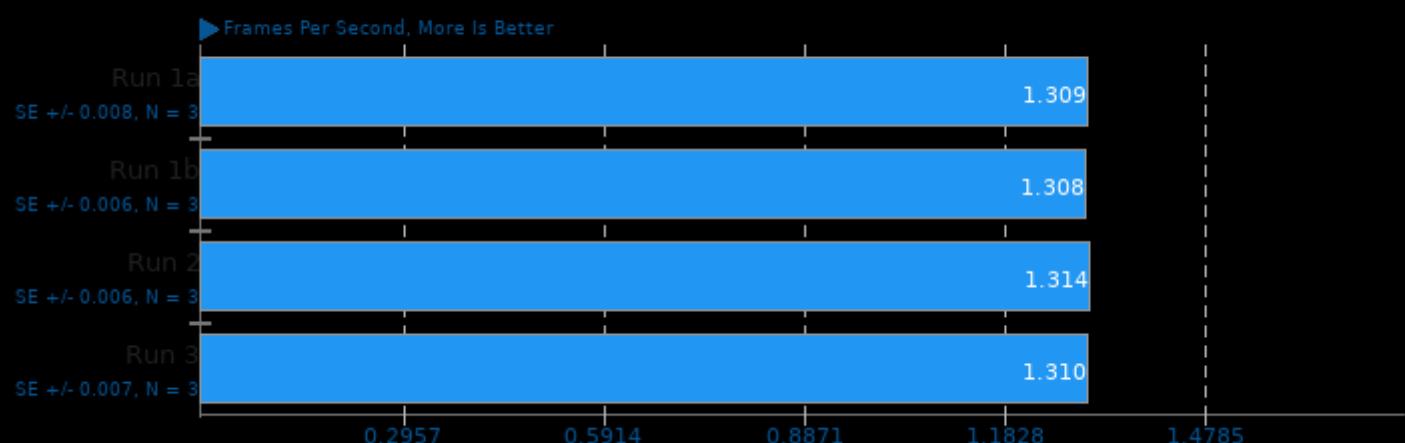
Speed: 1

**rav1e 0.4 Alpha**

Speed: 5

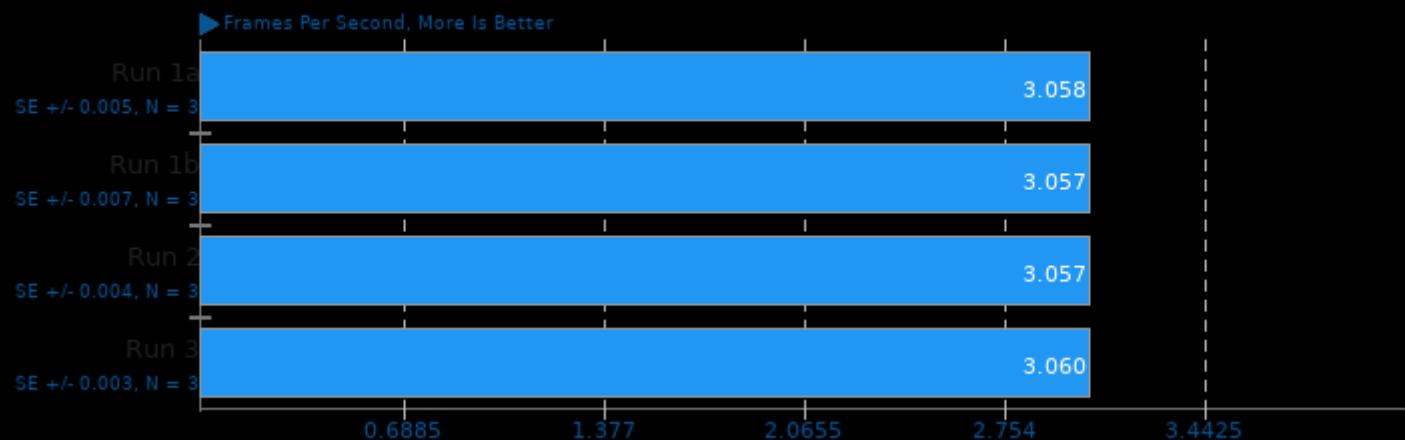
**rav1e 0.4 Alpha**

Speed: 6

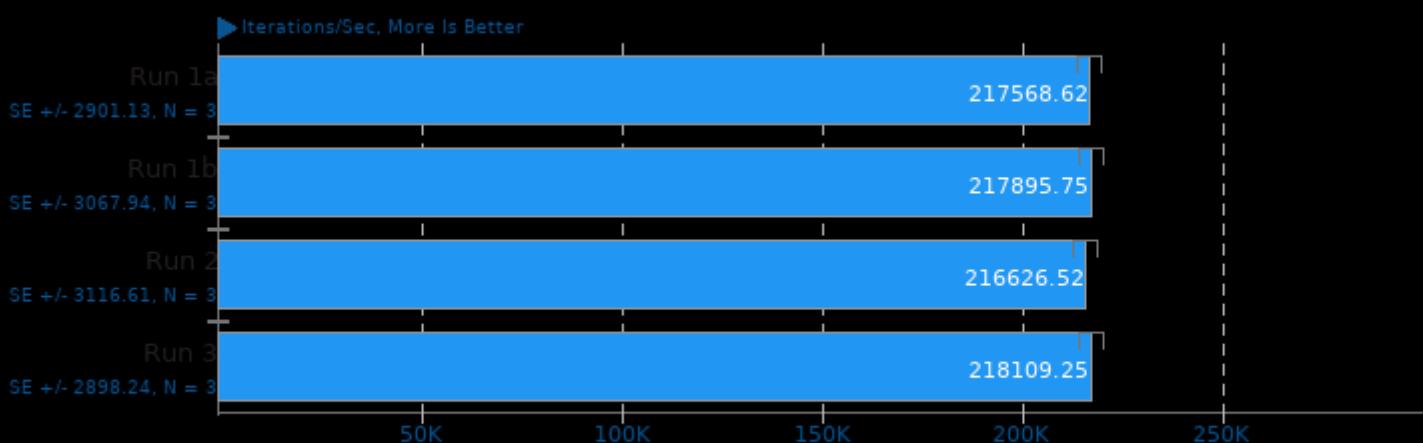


rav1e 0.4 Alpha

Speed: 10

**Coremark 1.0**

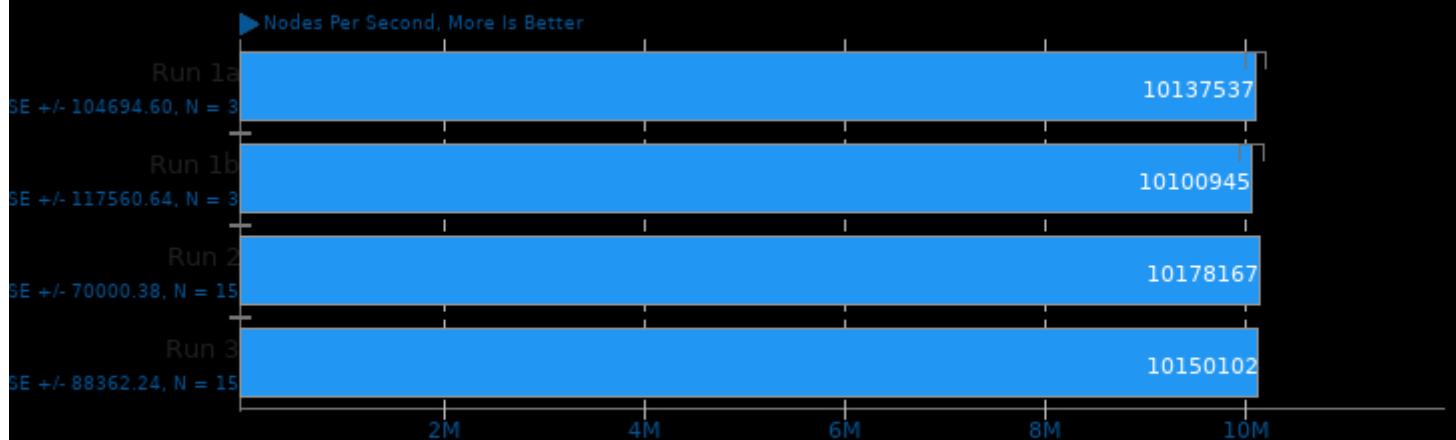
CoreMark Size 666 - Iterations Per Second



1. (CC) gcc options: -O2 -fintc -fint

Stockfish 12

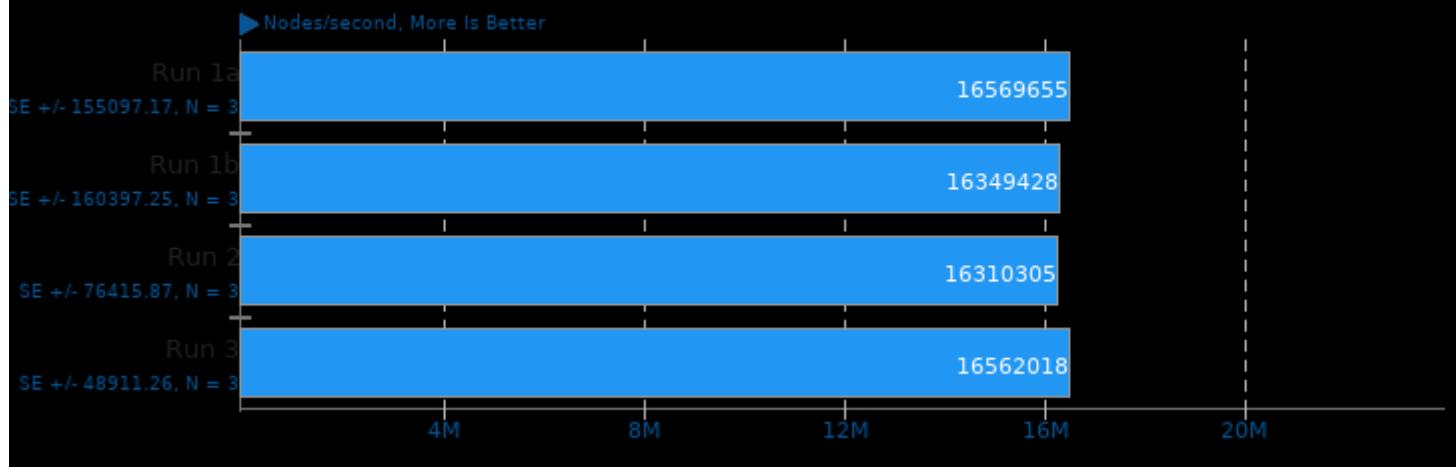
Total Time



```
1. (CXX) g++ options: -m64 -lpthread -fno-exceptions -std=c++17 -pedantic -O3 -msse -msse3 -mpopcnt -msse4.1 -mssse3 -msse2 -fno -fno=jobserver
```

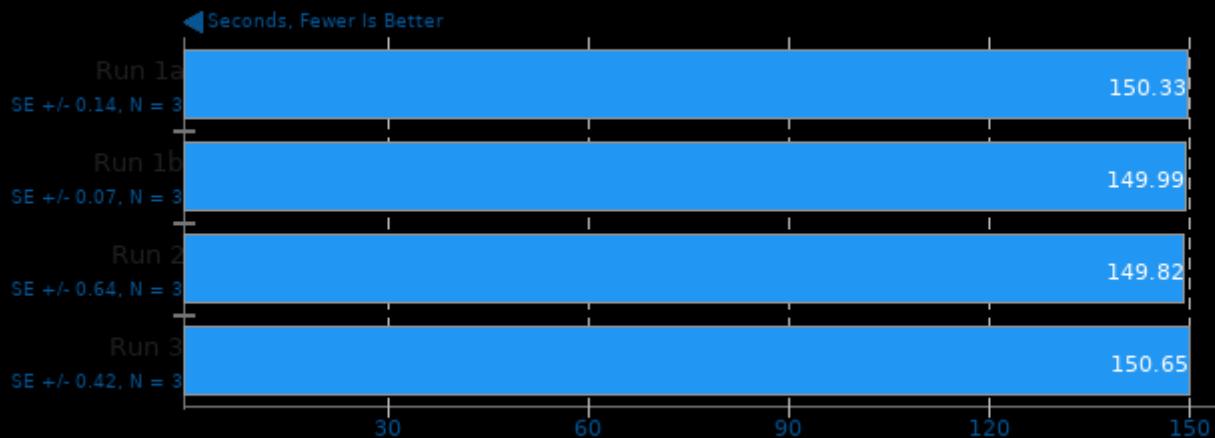
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



libavif avifenc 0.7.3

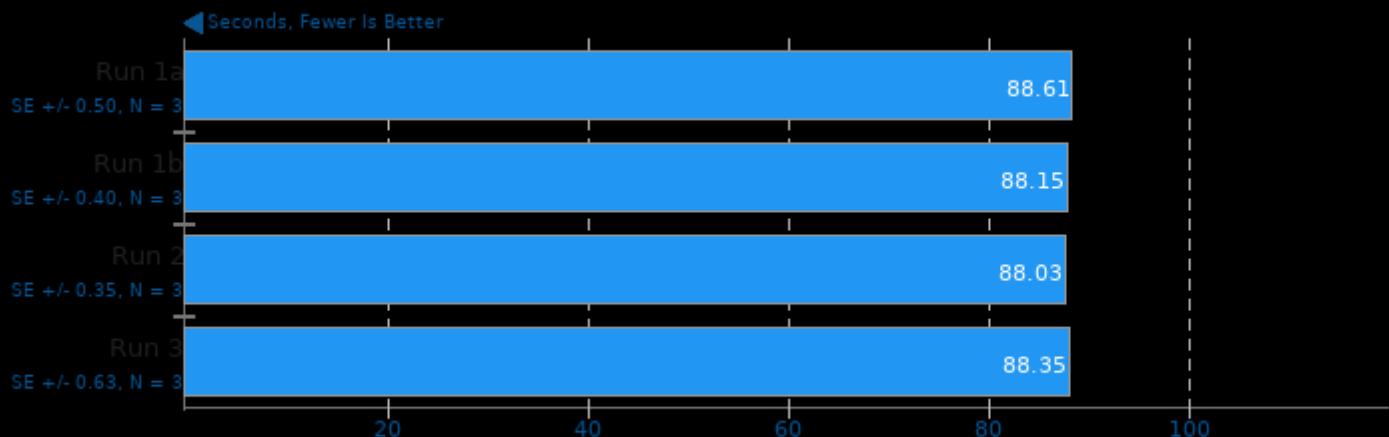
Encoder Speed: 0



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

libavif avifenc 0.7.3

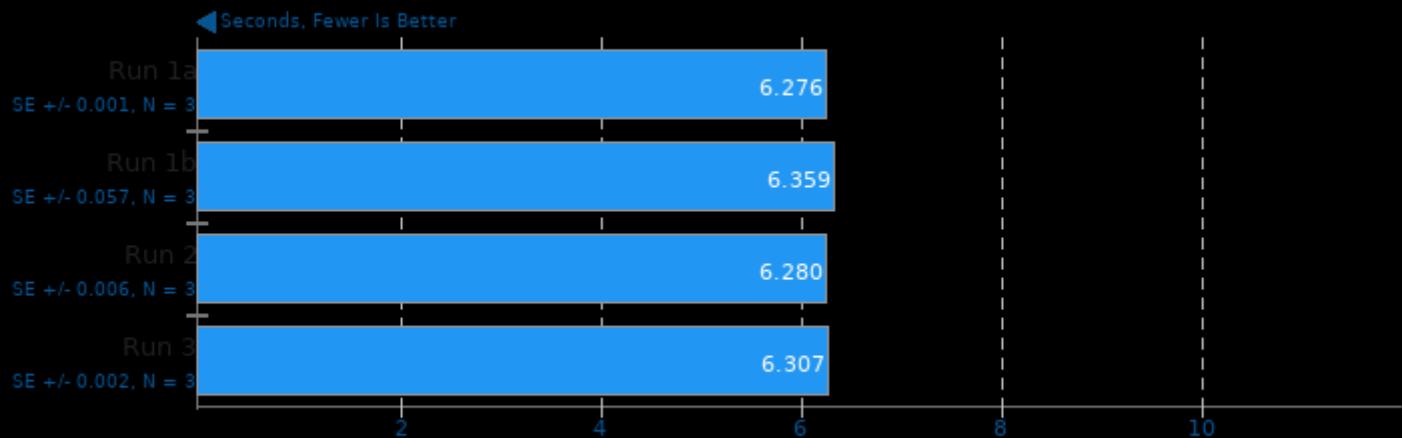
Encoder Speed: 2



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

libavif avifenc 0.7.3

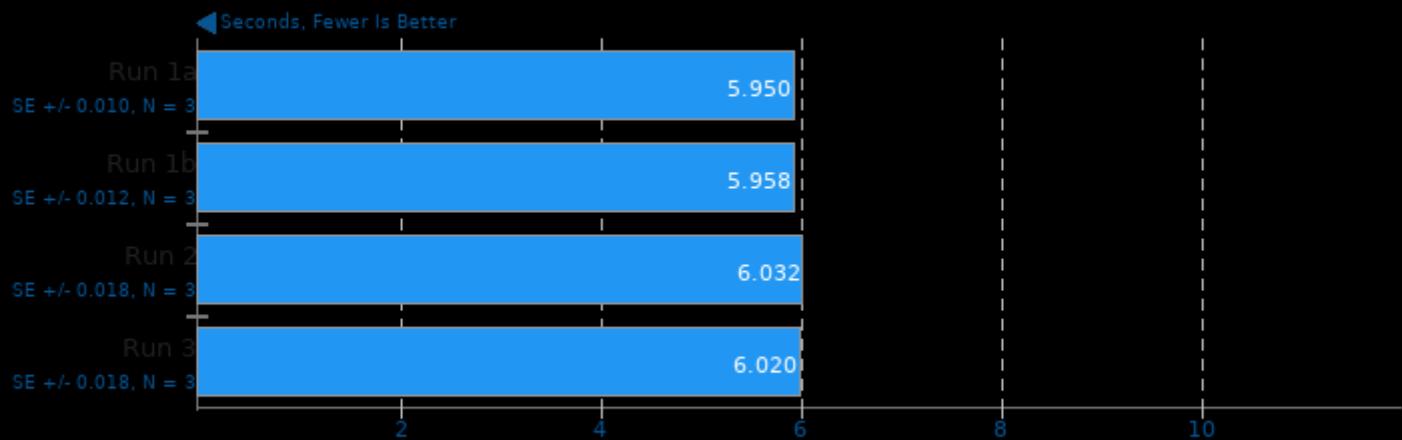
Encoder Speed: 8



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

libavif avifenc 0.7.3

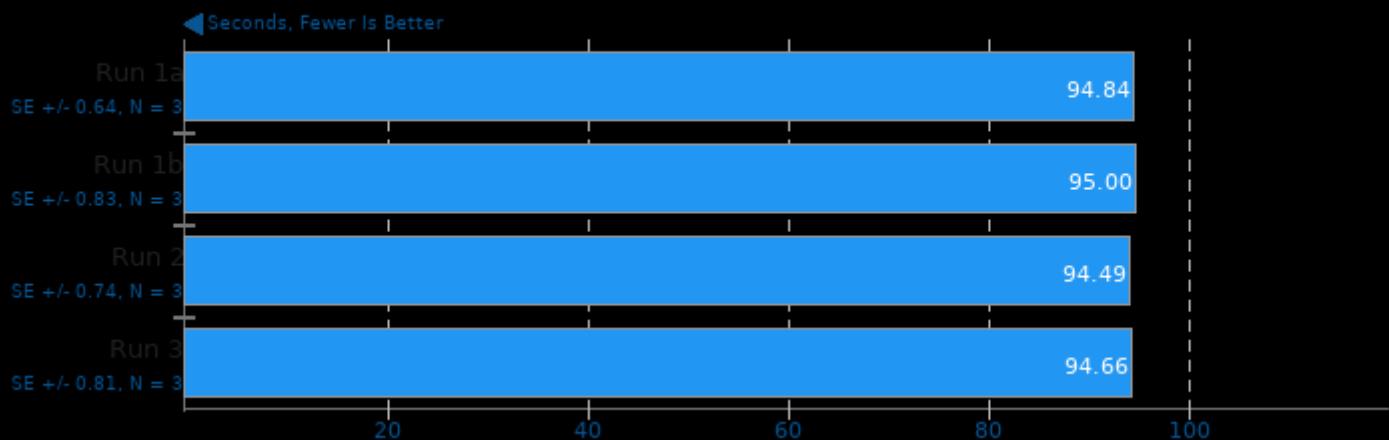
Encoder Speed: 10



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

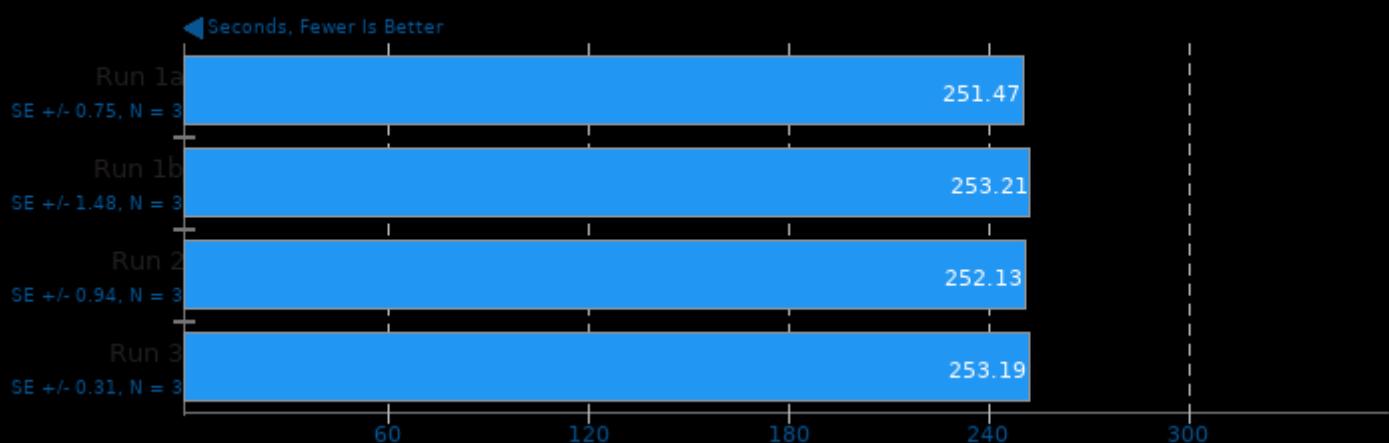
Timed FFmpeg Compilation 4.2.2

Time To Compile

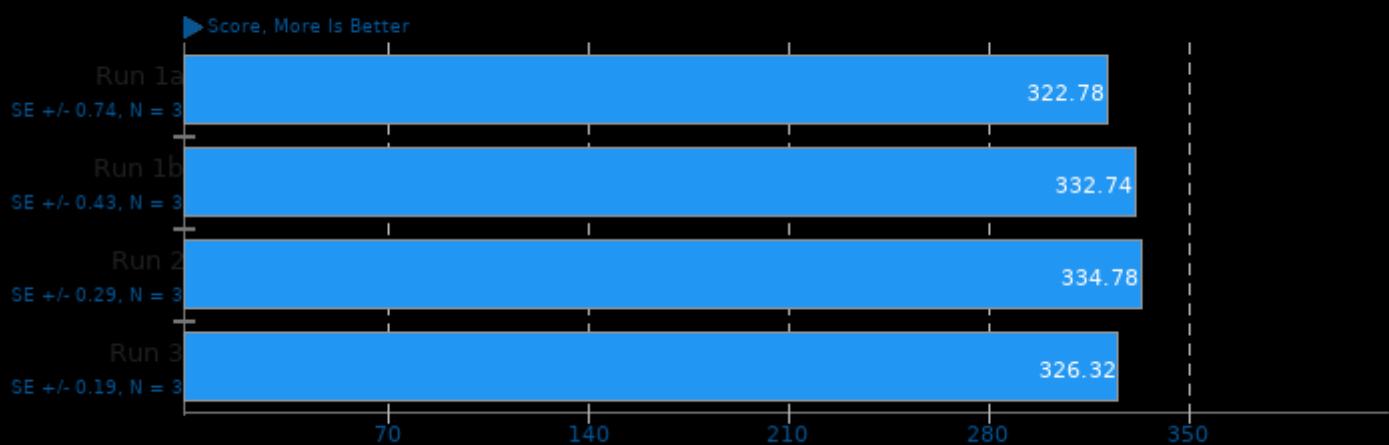


Build2 0.13

Time To Compile

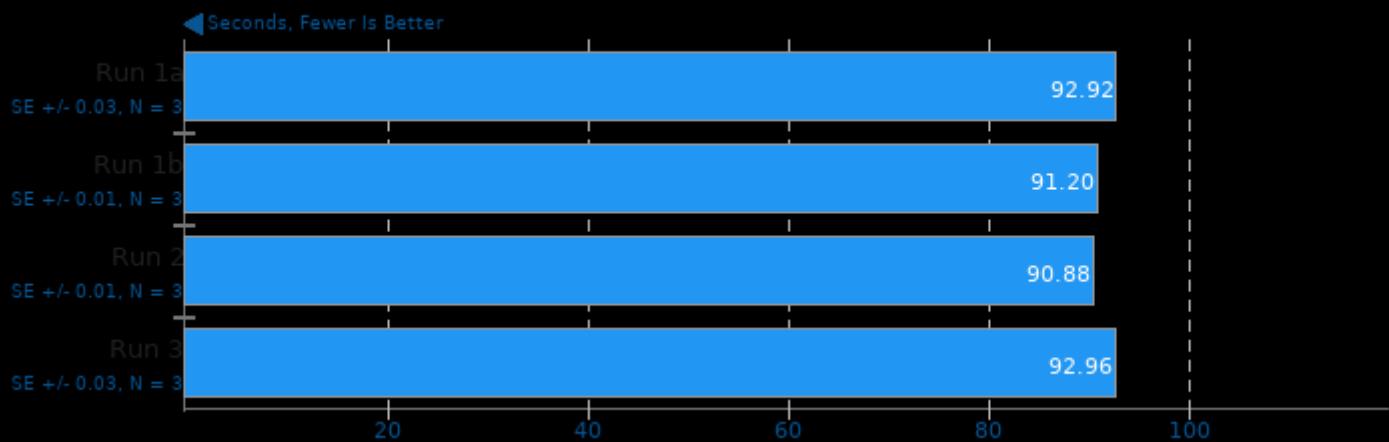


Numpy Benchmark



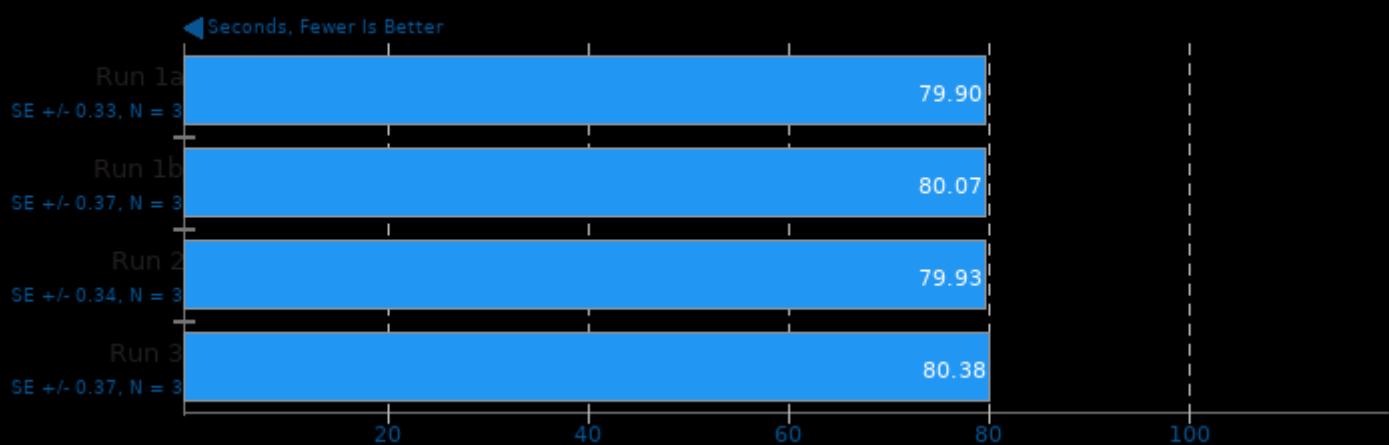
Timed Eigen Compilation 3.3.9

Time To Compile



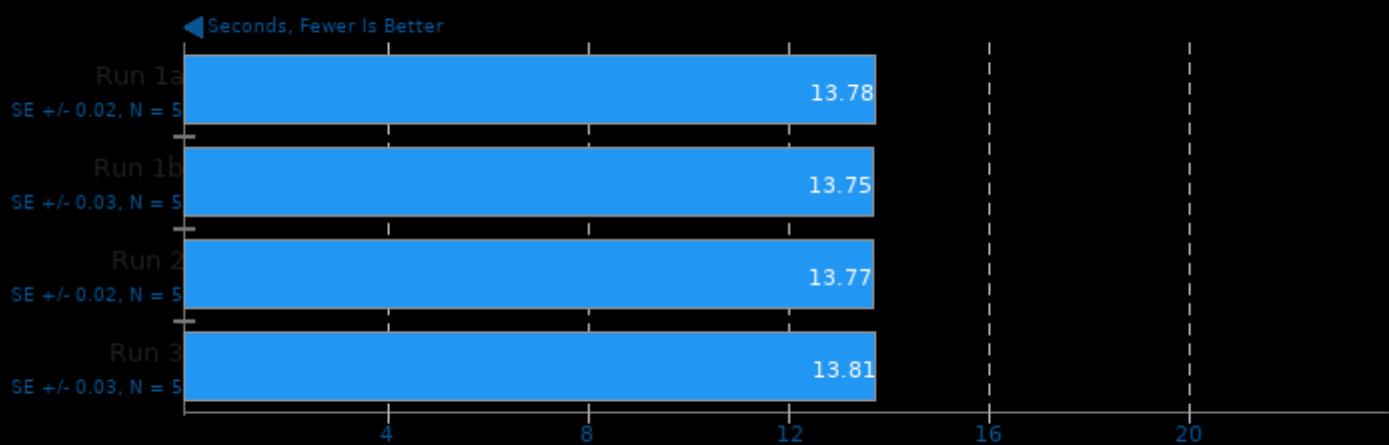
DeepSpeech 0.6

Acceleration: CPU



Monkey Audio Encoding 3.99.6

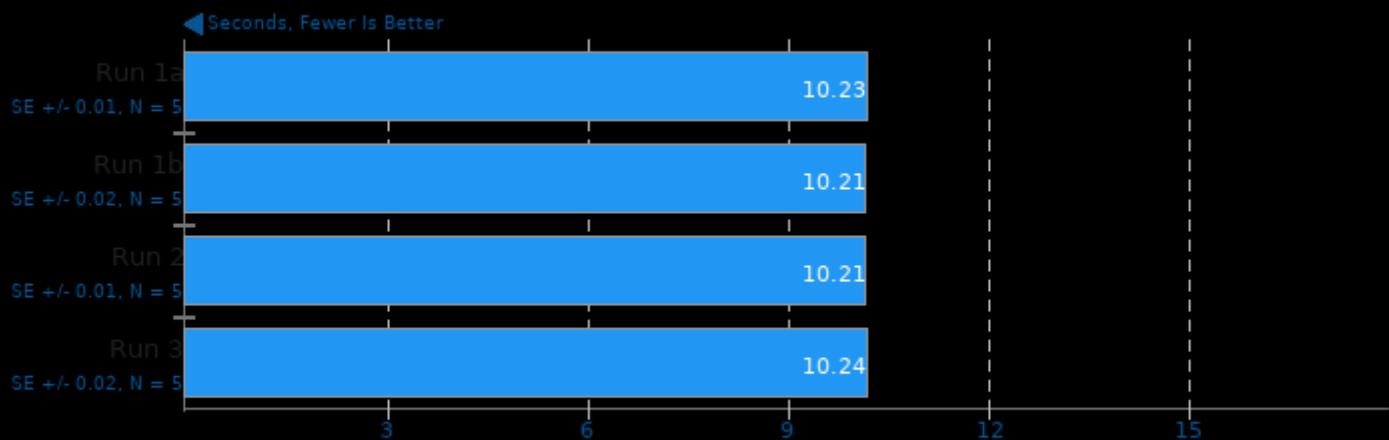
WAV To APE



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

Opus Codec Encoding 1.3.1

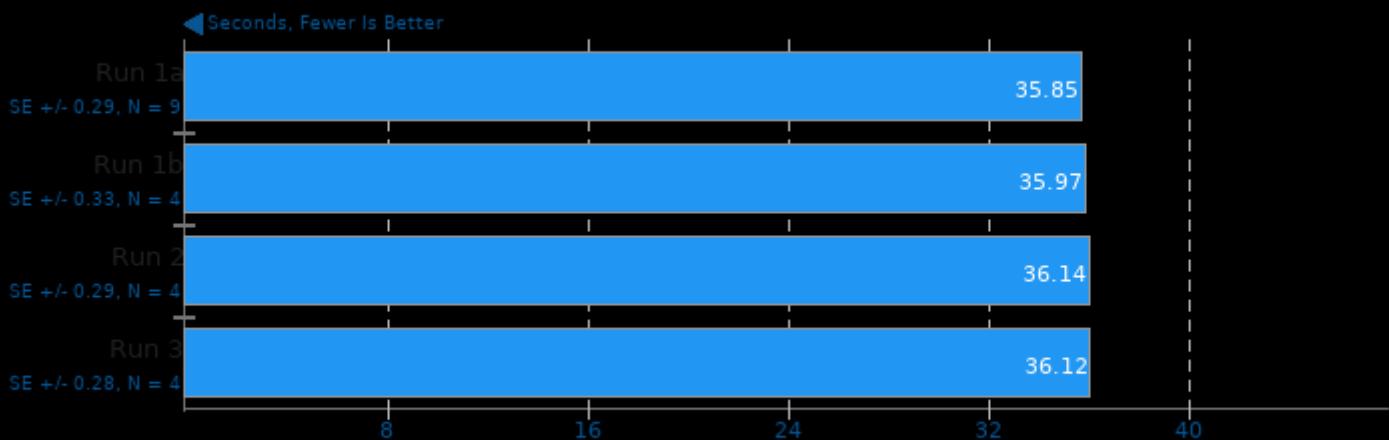
WAV To Opus Encode



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

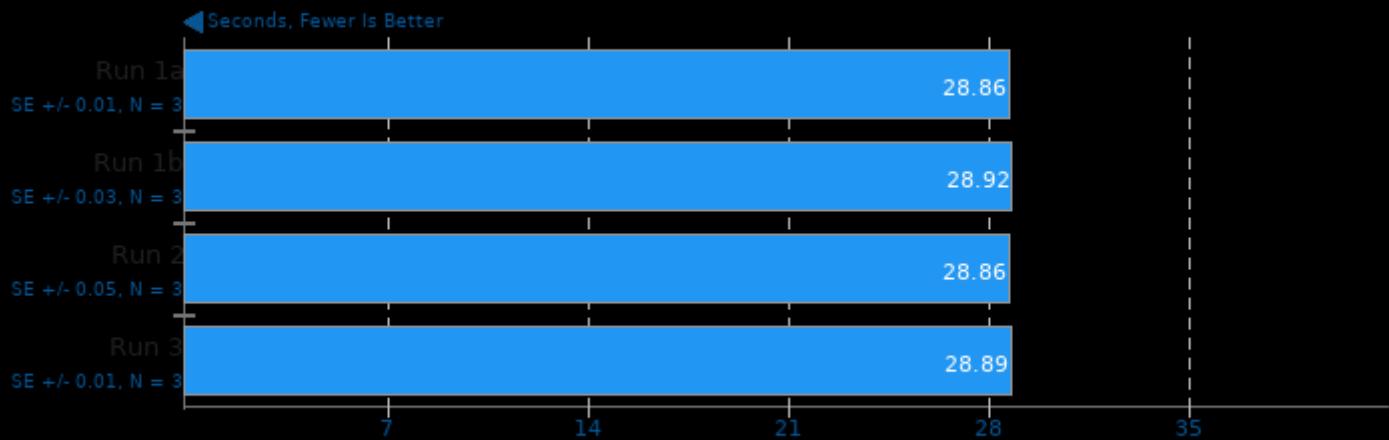
eSpeak-NG Speech Engine 20200907

Text-To-Speech Synthesis



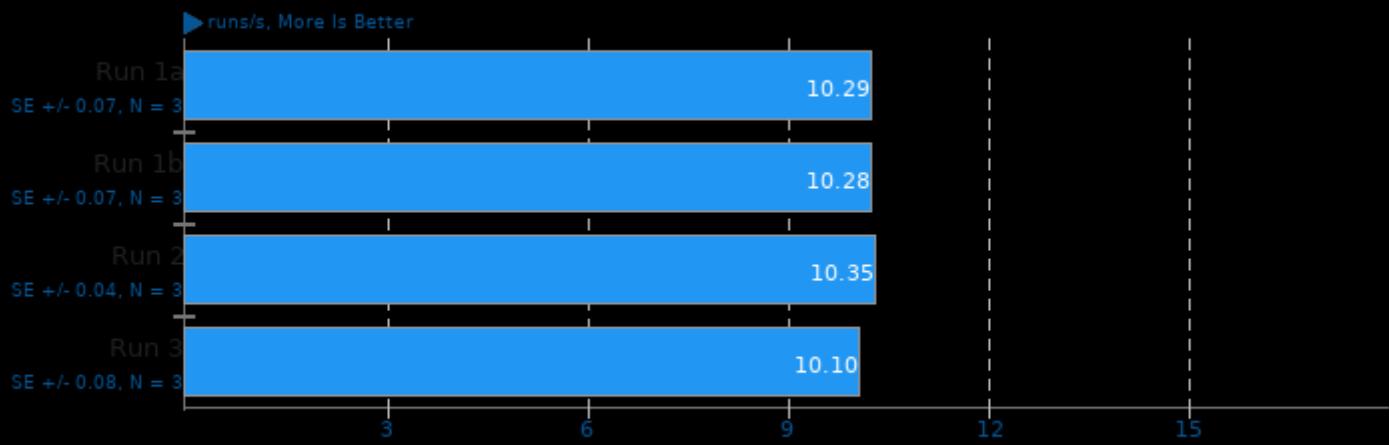
1. (CC) gcc options: -O2 -std=c99

RNNoise 2020-06-28



1. (CC) gcc options: -O2 -pedantic -fvisibility=hidden

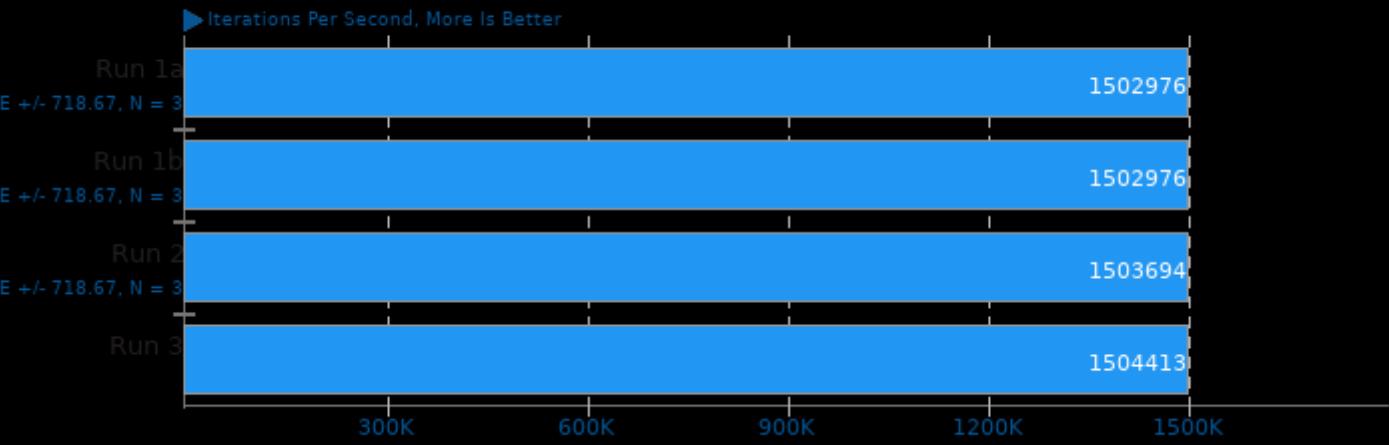
Node.js V8 Web Tooling Benchmark



1. Nodejs
v12.18.2

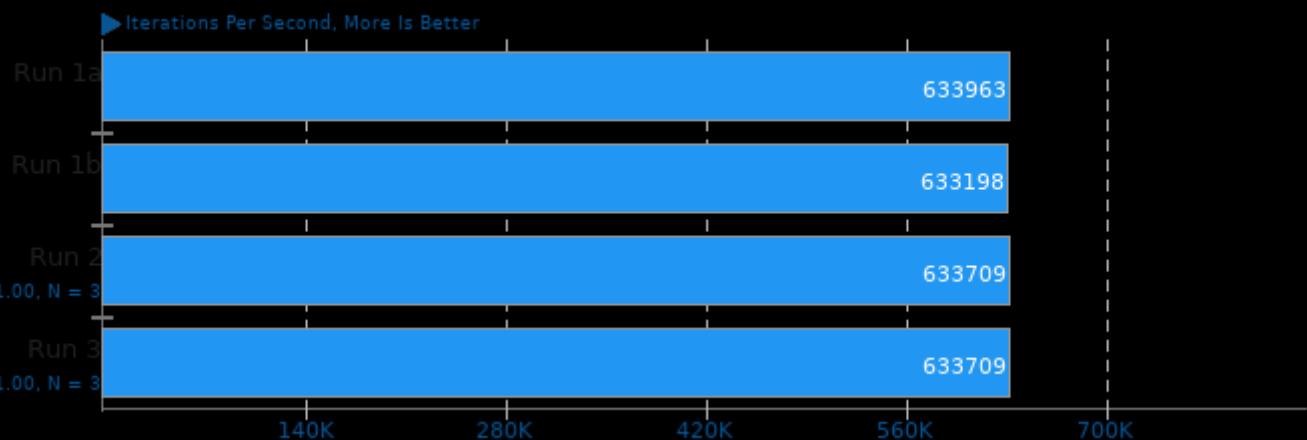
Cryptsetup

PBKDF2-sha512



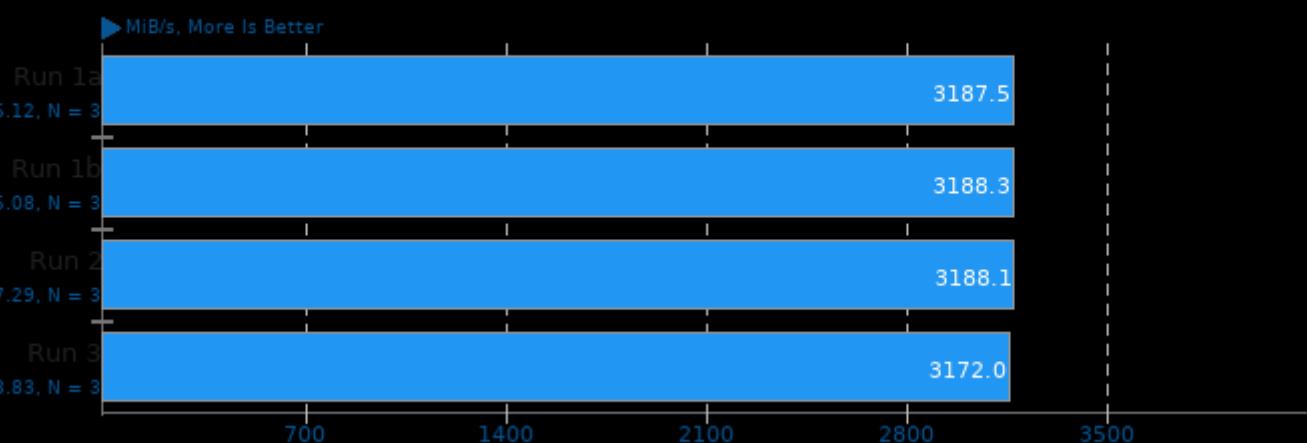
Cryptsetup

PBKDF2-whirlpool



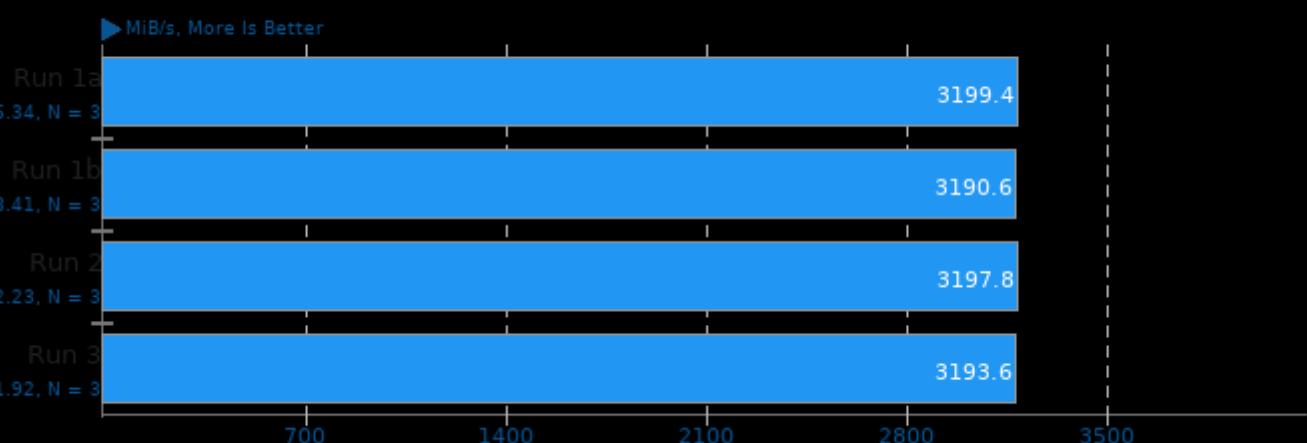
Cryptsetup

AES-XTS 256b Encryption



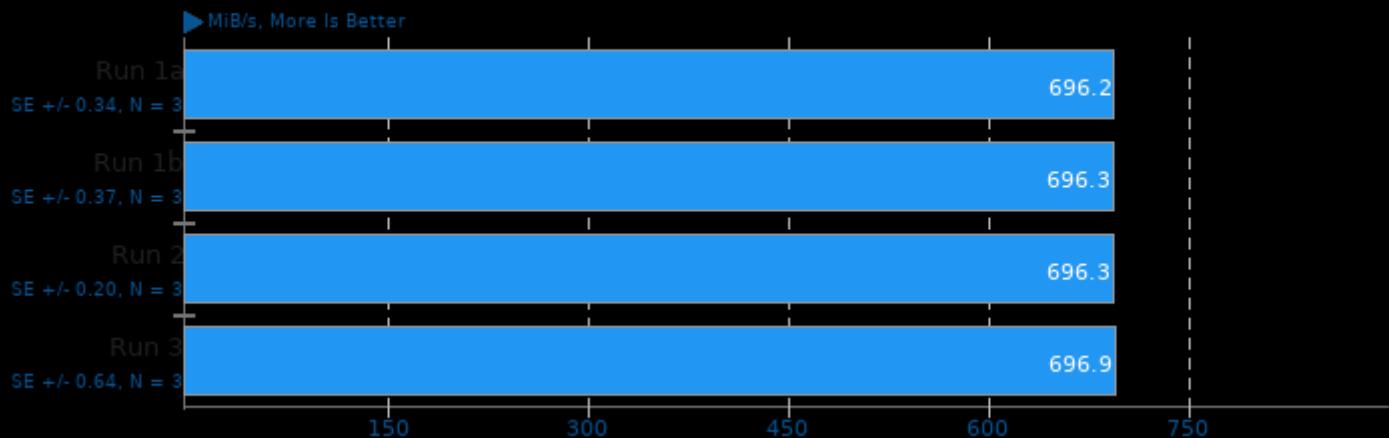
Cryptsetup

AES-XTS 256b Decryption



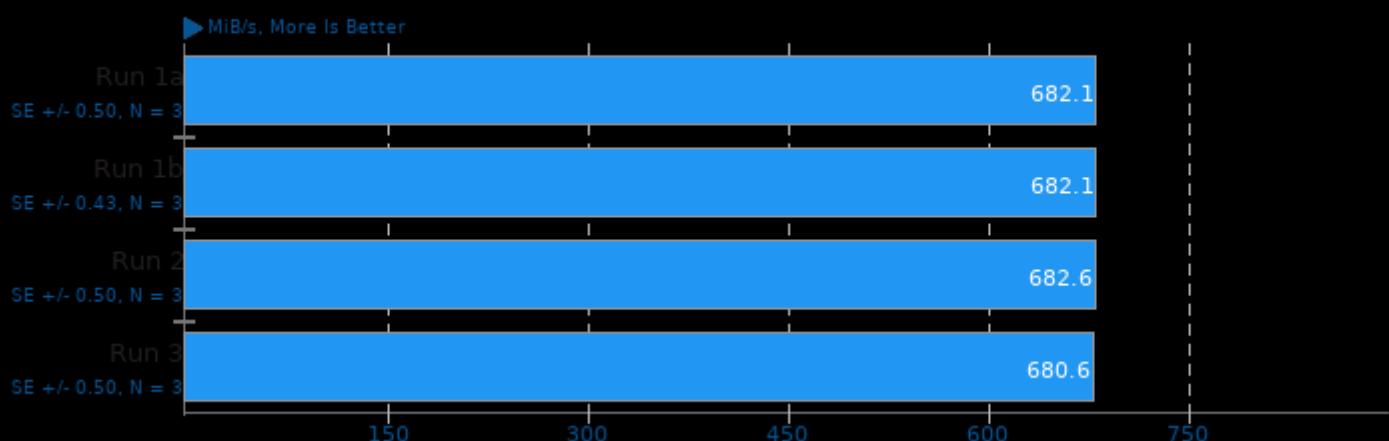
Cryptsetup

Serpent-XTS 256b Encryption



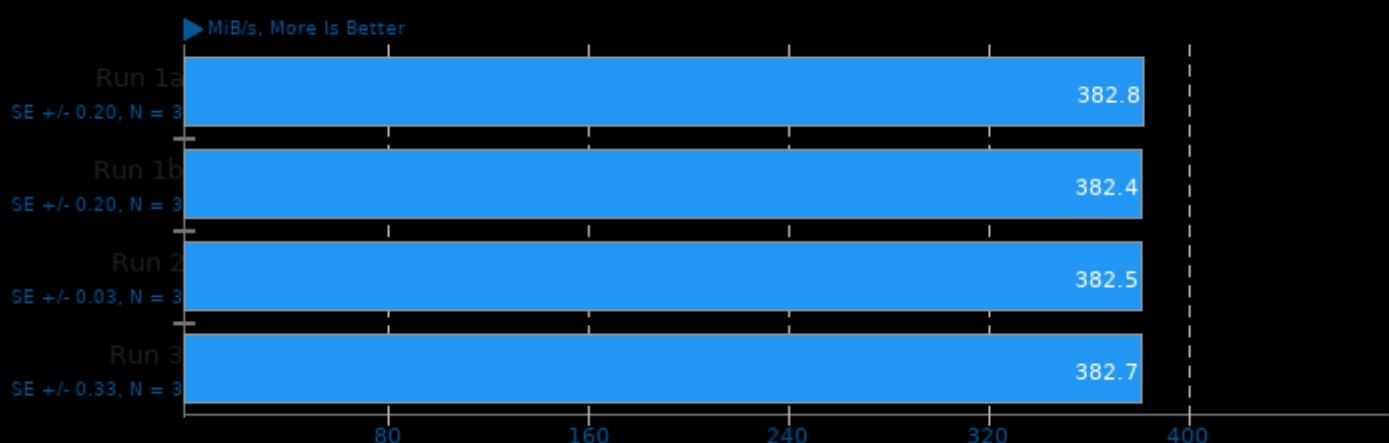
Cryptsetup

Serpent-XTS 256b Decryption



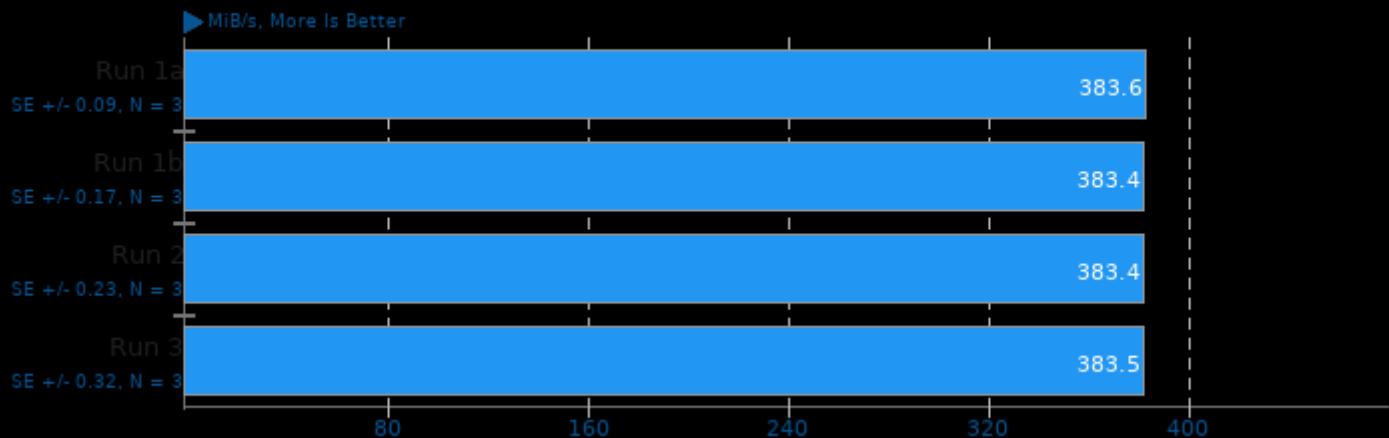
Cryptsetup

Twofish-XTS 256b Encryption



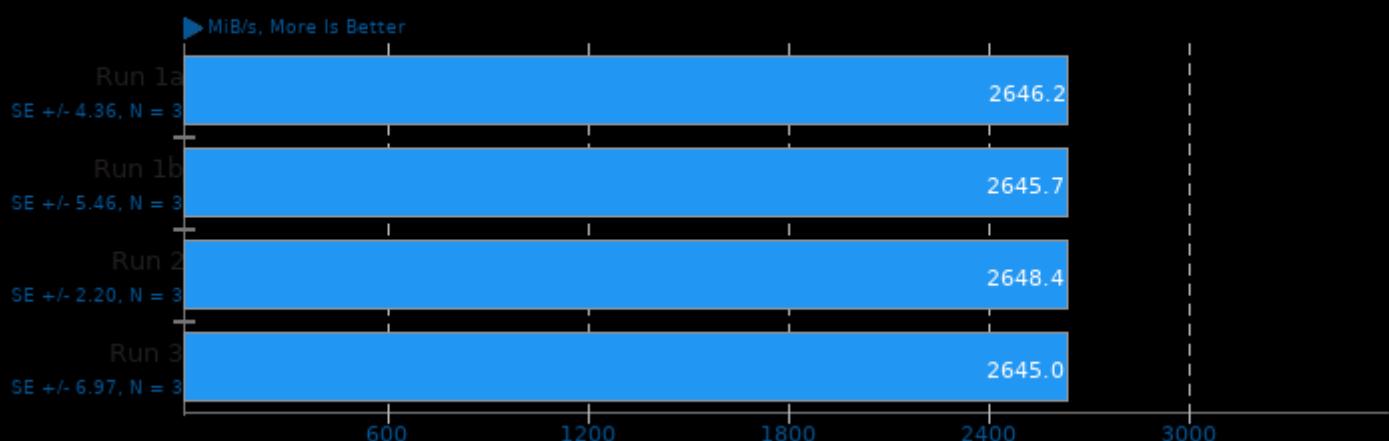
Cryptsetup

Twofish-XTS 256b Decryption



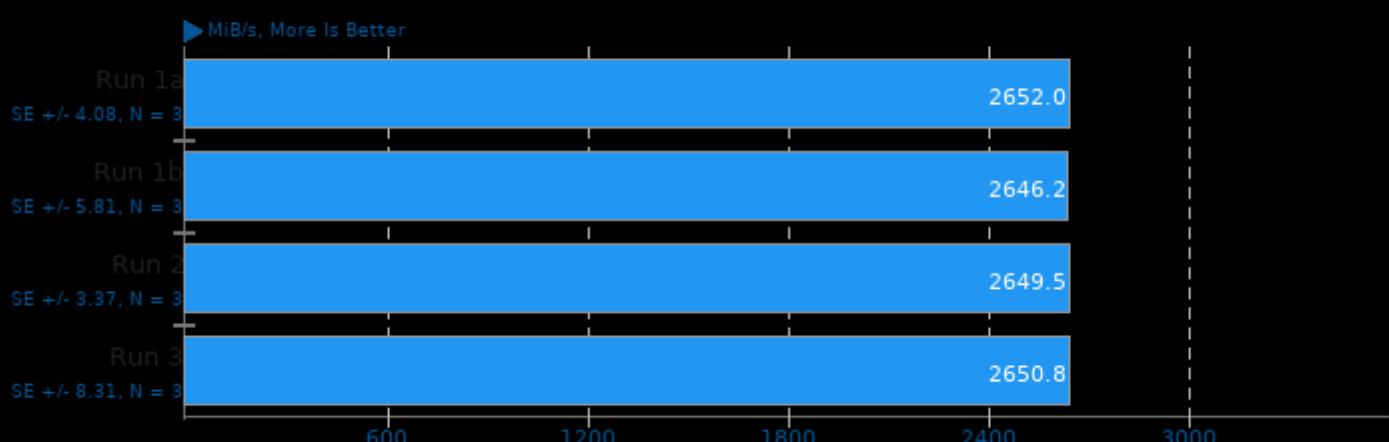
Cryptsetup

AES-XTS 512b Encryption



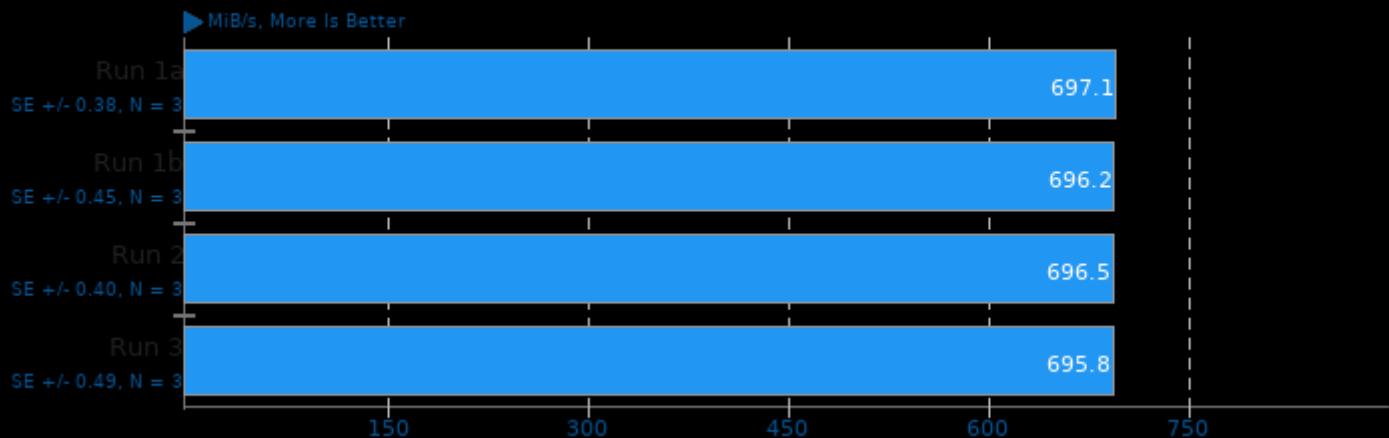
Cryptsetup

AES-XTS 512b Decryption



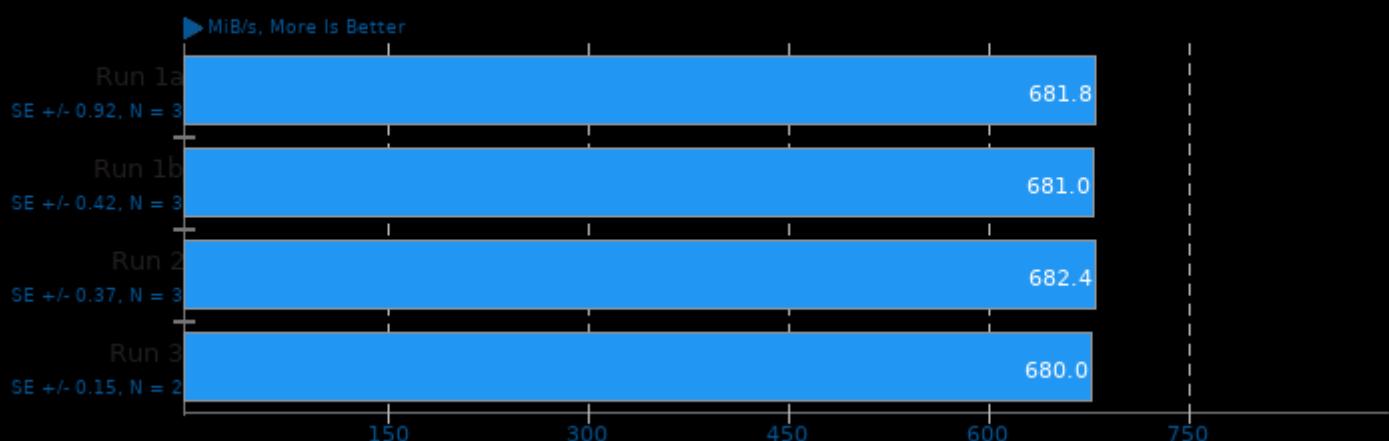
Cryptsetup

Serpent-XTS 512b Encryption



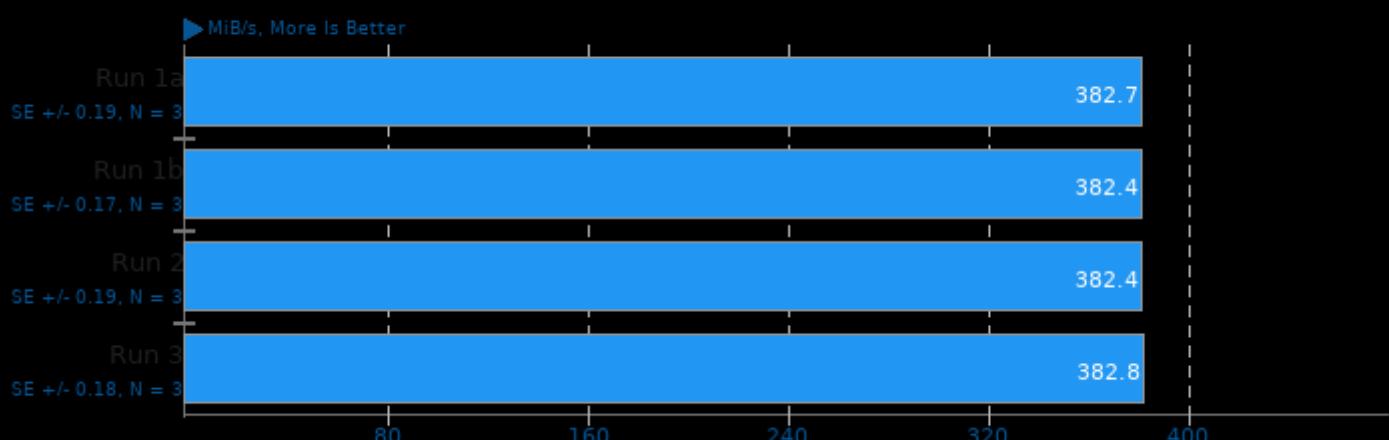
Cryptsetup

Serpent-XTS 512b Decryption



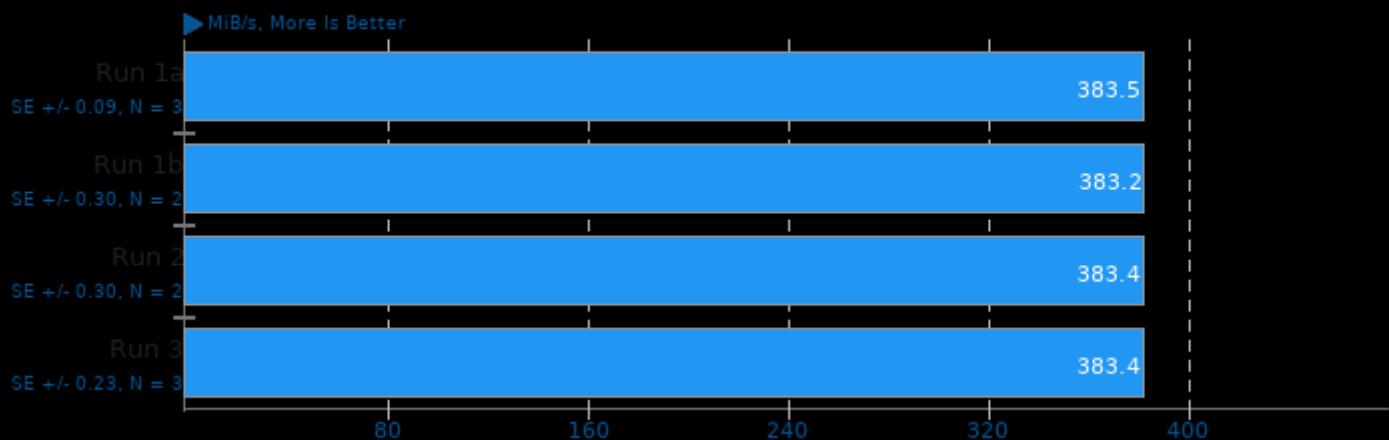
Cryptsetup

Twofish-XTS 512b Encryption



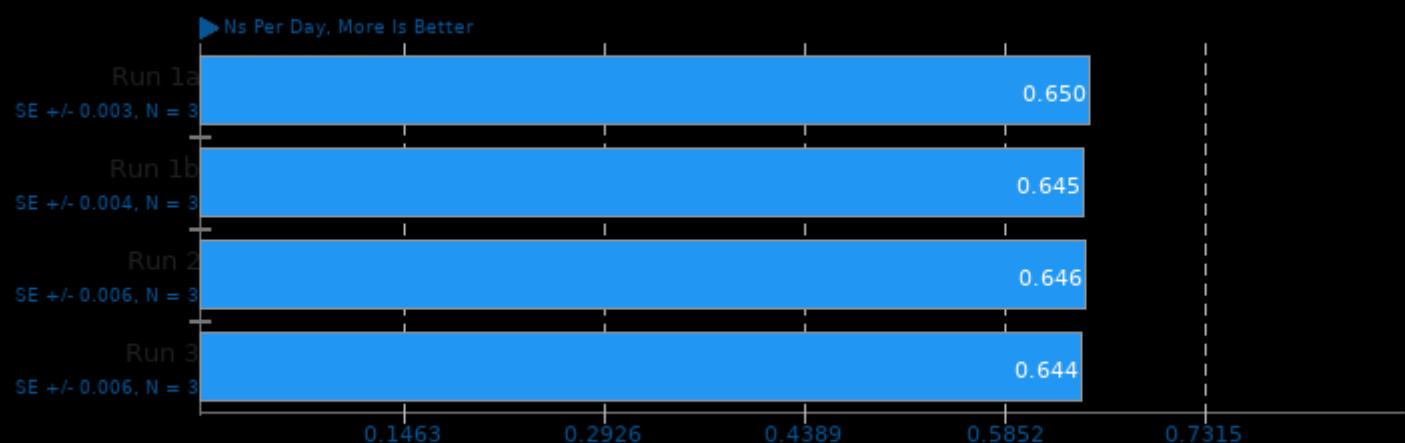
Cryptsetup

Twofish-XTS 512b Decryption



GROMACS 2020.3

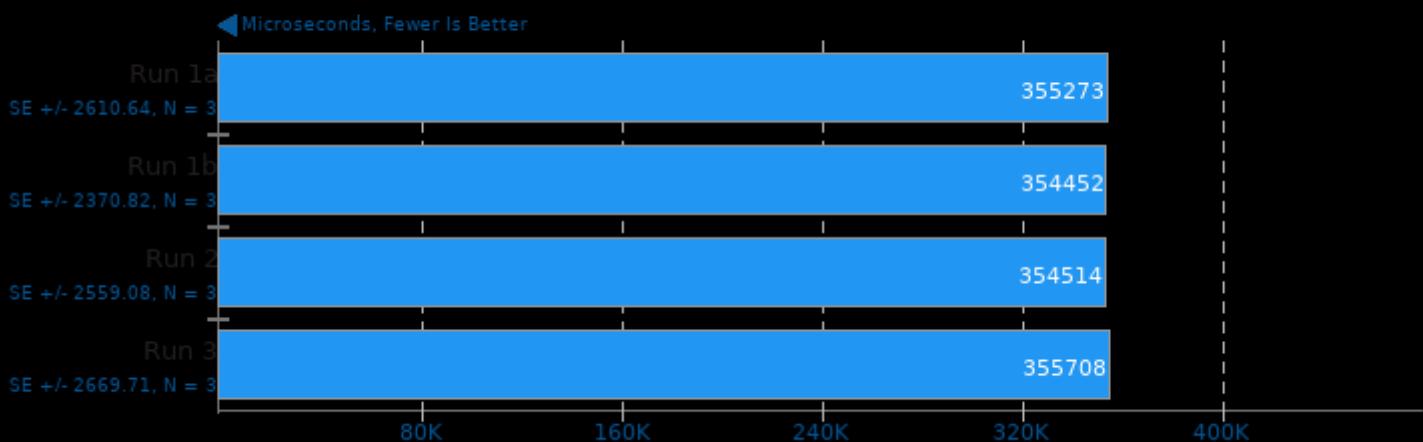
Water Benchmark



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

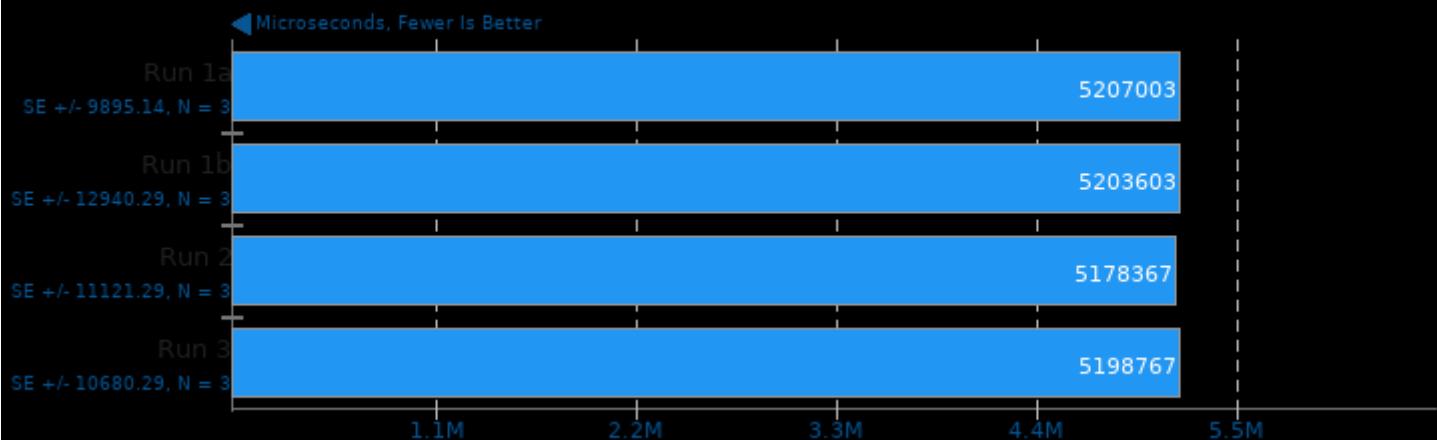
TensorFlow Lite 2020-08-23

Model: SqueezeNet



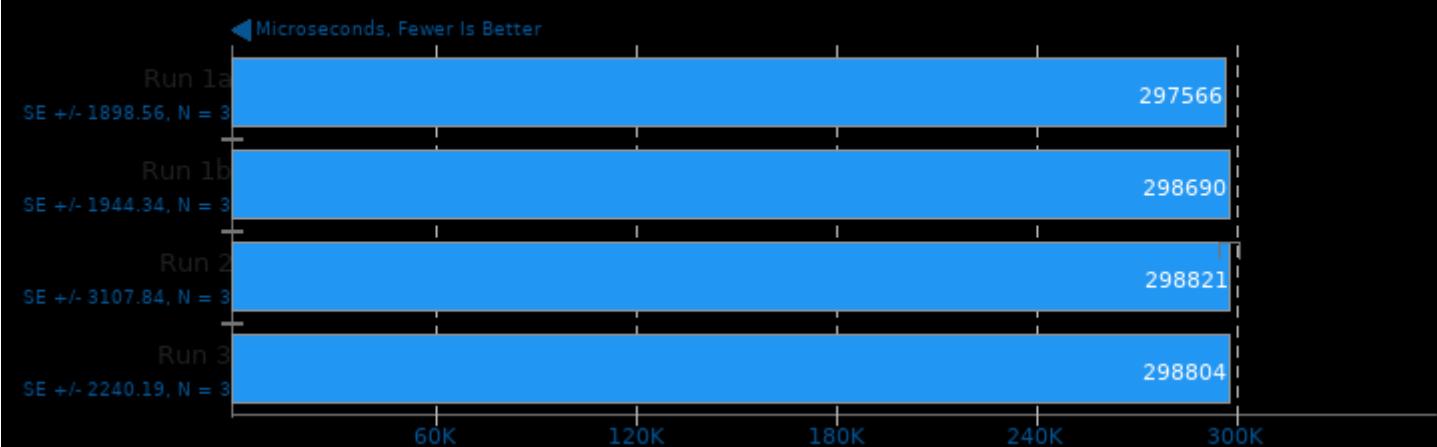
TensorFlow Lite 2020-08-23

Model: Inception V4



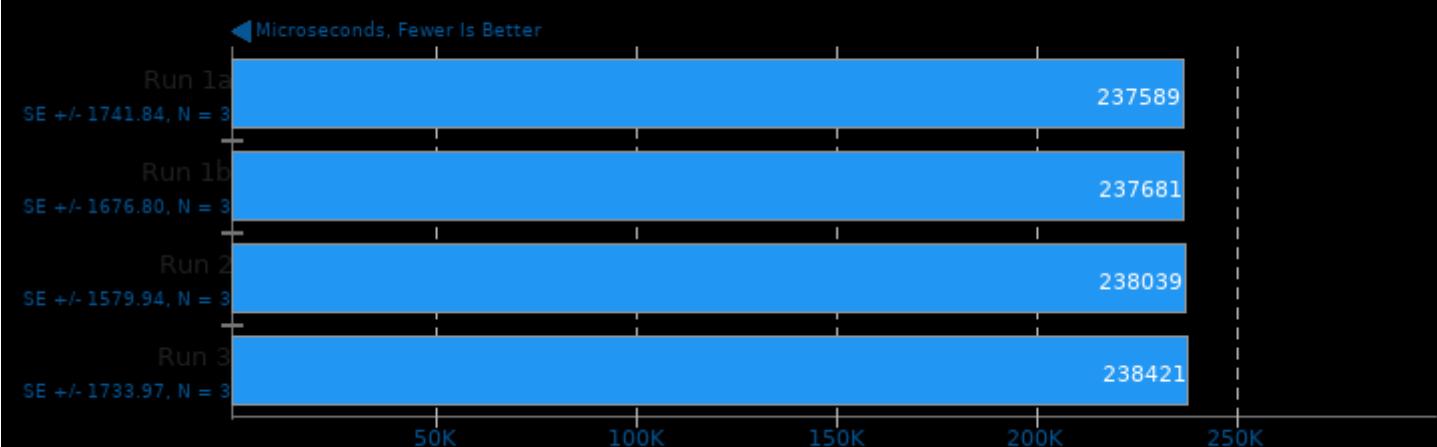
TensorFlow Lite 2020-08-23

Model: NASNet Mobile



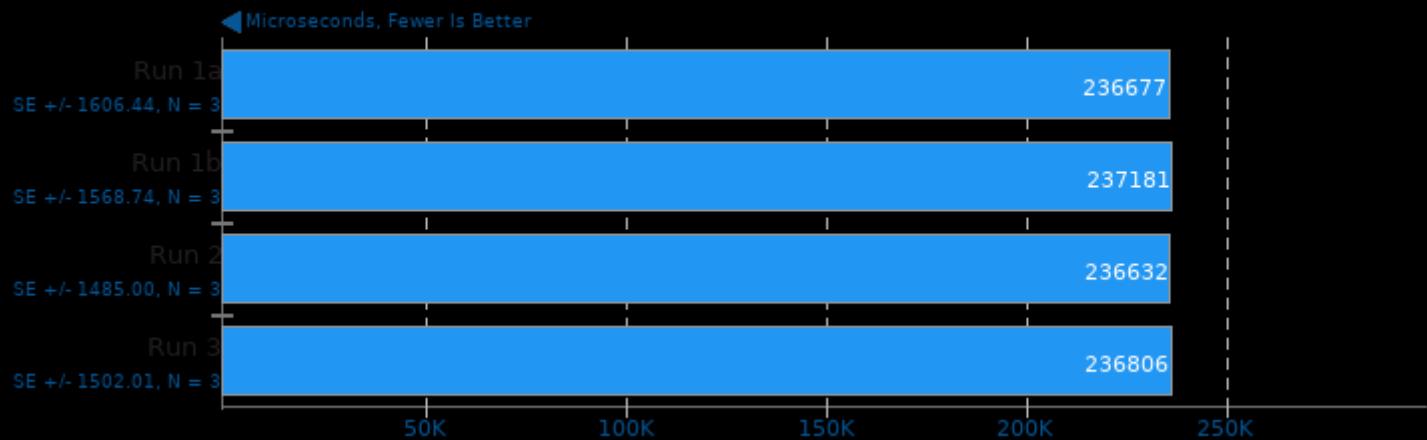
TensorFlow Lite 2020-08-23

Model: Mobilenet Float



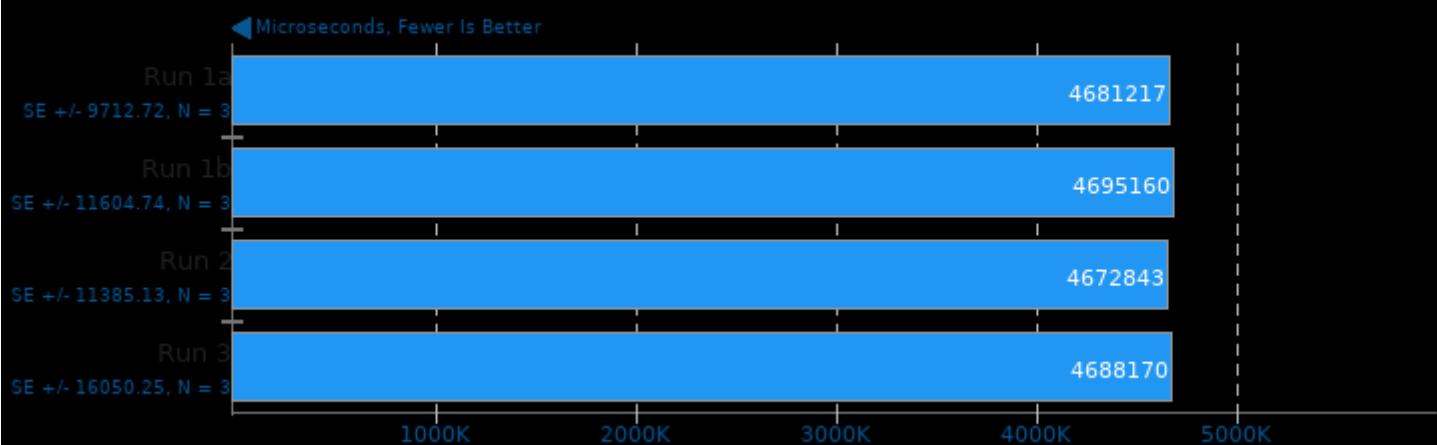
TensorFlow Lite 2020-08-23

Model: Mobilenet Quant



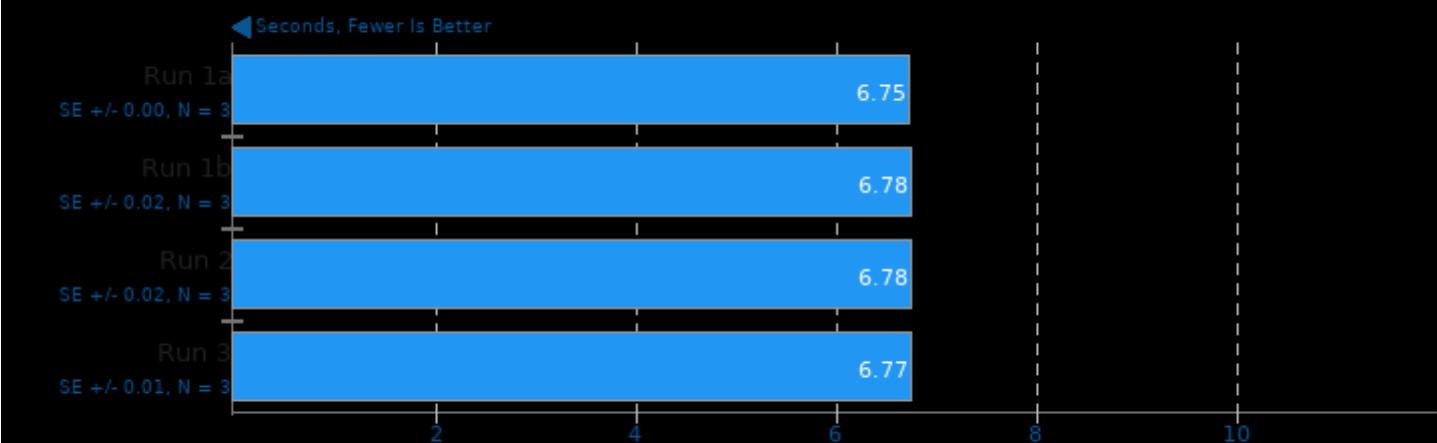
TensorFlow Lite 2020-08-23

Model: Inception ResNet V2



ASTC Encoder 2.0

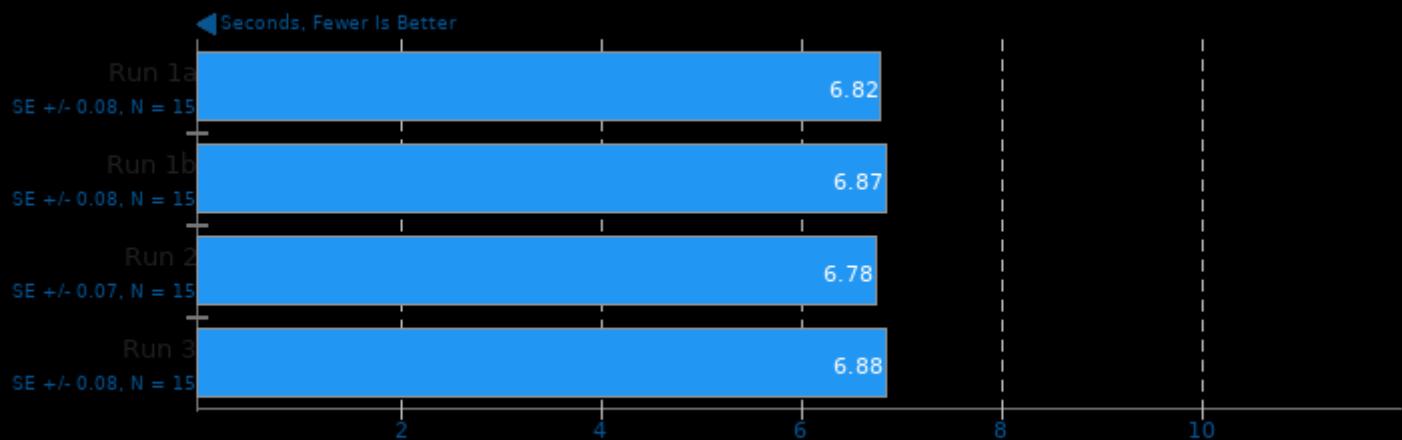
Preset: Fast



1. (CXX) g++ options: -std=c++14 -fvisibility=hidden -O3 -fno-math-errno -mfpmath=sse -mavx2 -mpopcnt -lpthread

ASTC Encoder 2.0

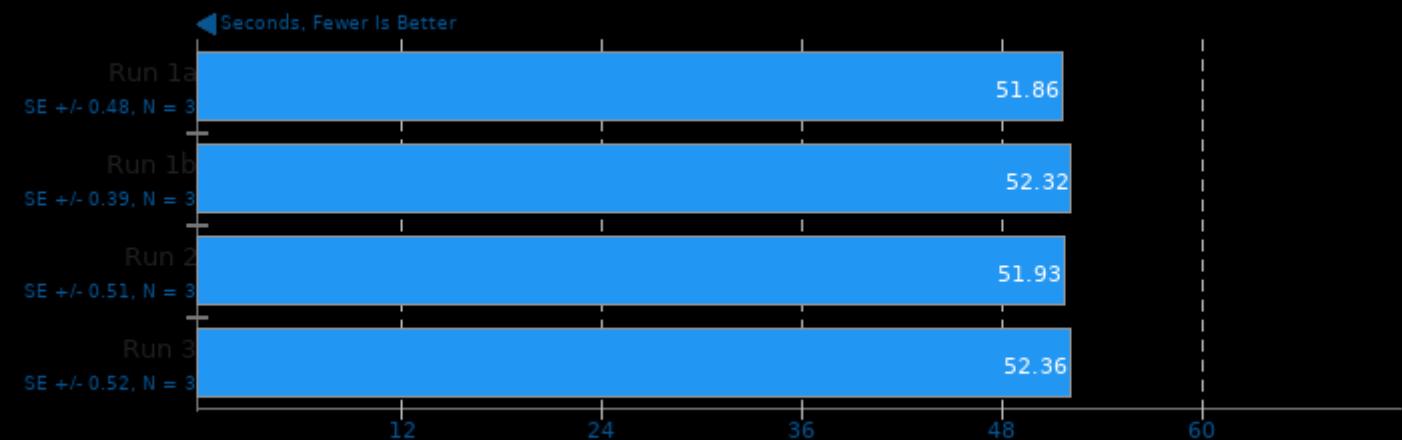
Preset: Medium



1. (CXX) g++ options: -std=c++14 -fvisibility=hidden -O3 -fno-math-errno -mavx2 -mpopcnt -lpthread

ASTC Encoder 2.0

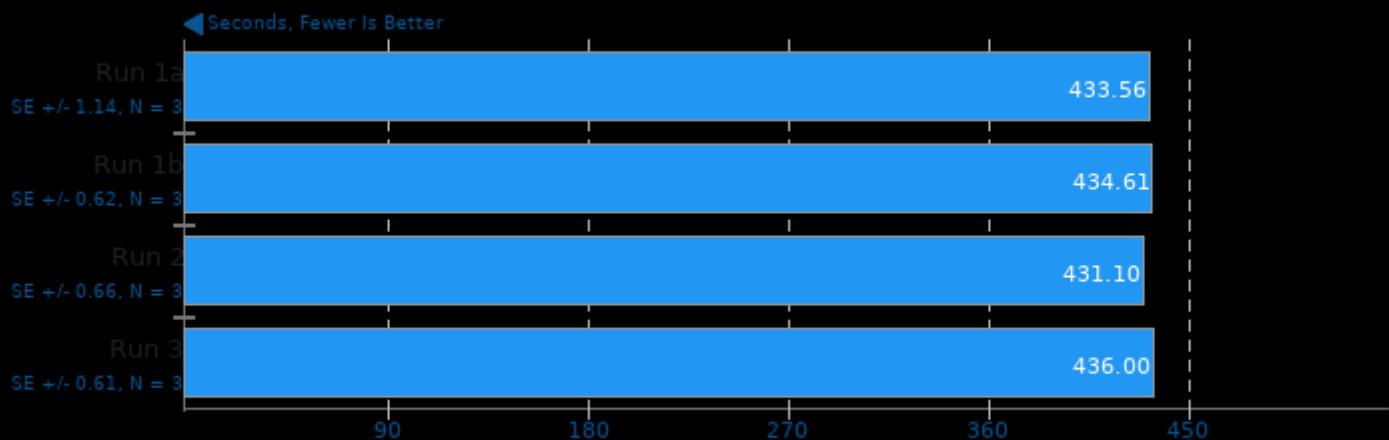
Preset: Thorough



1. (CXX) g++ options: -std=c++14 -fvisibility=hidden -O3 -fno-math-errno -mavx2 -mpopcnt -lpthread

ASTC Encoder 2.0

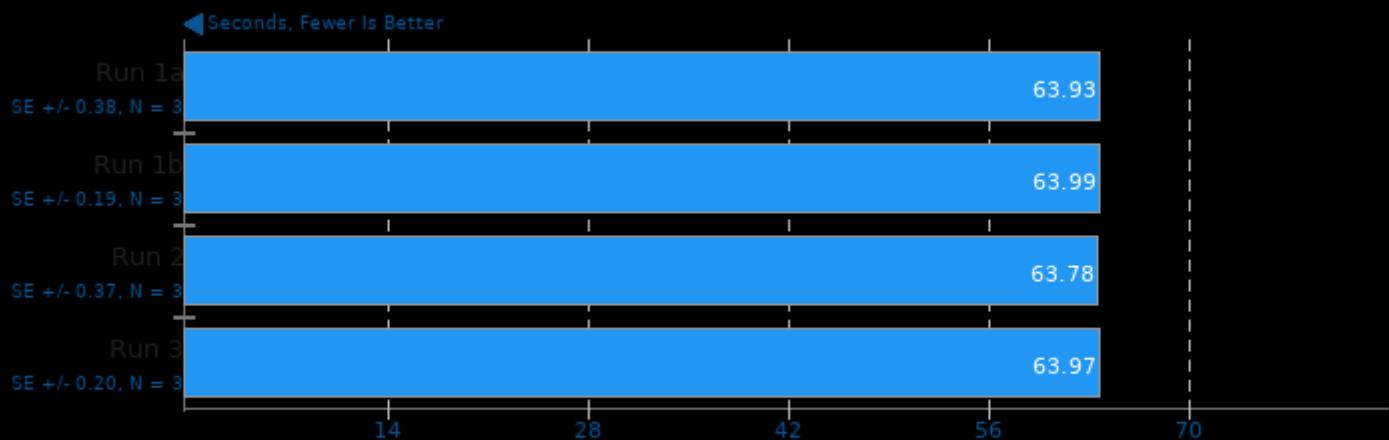
Preset: Exhaustive



1. (CXX) g++ options: -std=c++14 -fvisibility=hidden -O3 -fno-math-errno -mavx2 -mpopcnt -lpthread

Basis Universal 1.12

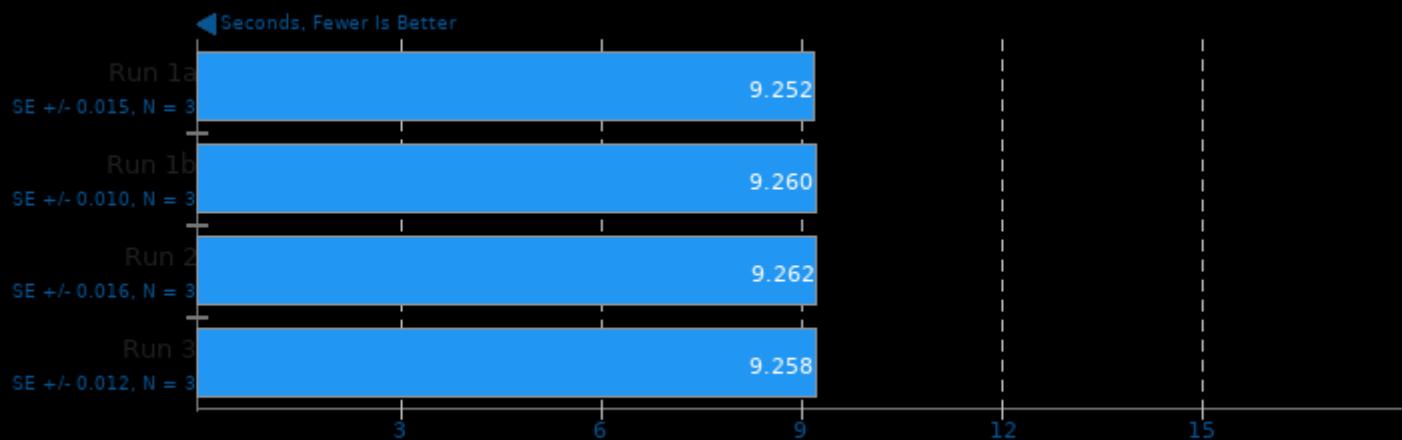
Settings: ETC1S



1. (CXX) g++ options: -std=c++11 -fvisibility=hidden -fPIC -fno-strict-aliasing -O3 -rdynamic -lm -lpthread

Basis Universal 1.12

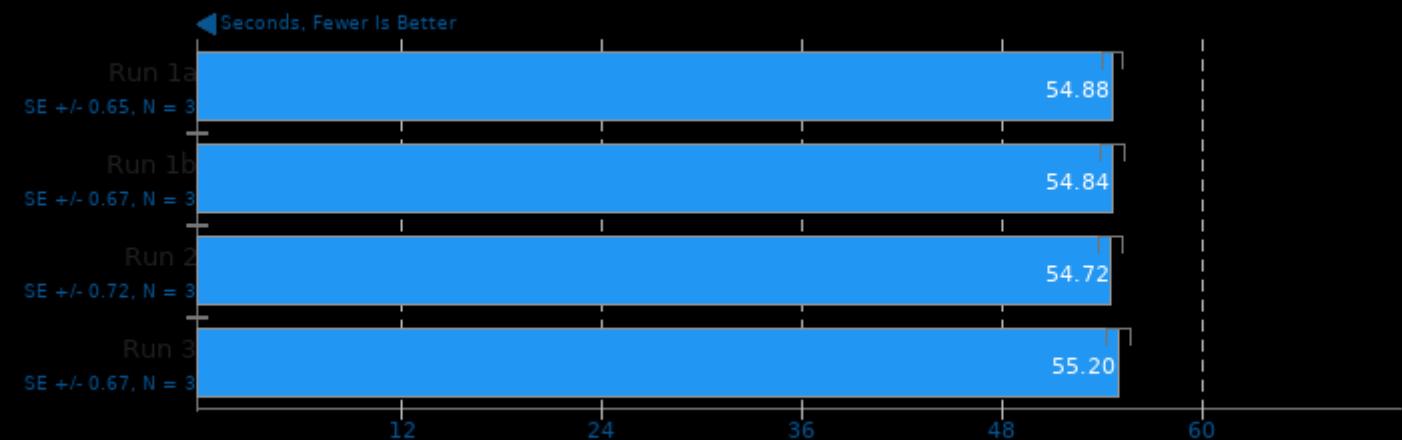
Settings: UASTC Level 0



1. (CXX) g++ options: -std=c++11 -fvisibility=hidden -fPIC -fno-strict-aliasing -O3 -rdynamic -lm -lpthread

Basis Universal 1.12

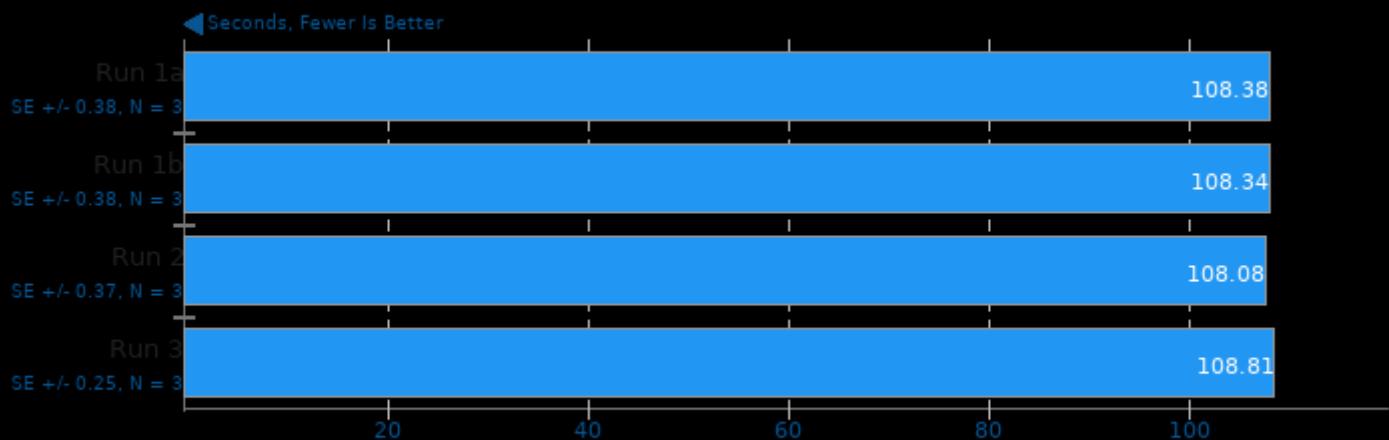
Settings: UASTC Level 2



1. (CXX) g++ options: -std=c++11 -fvisibility=hidden -fPIC -fno-strict-aliasing -O3 -rdynamic -lm -lpthread

Basis Universal 1.12

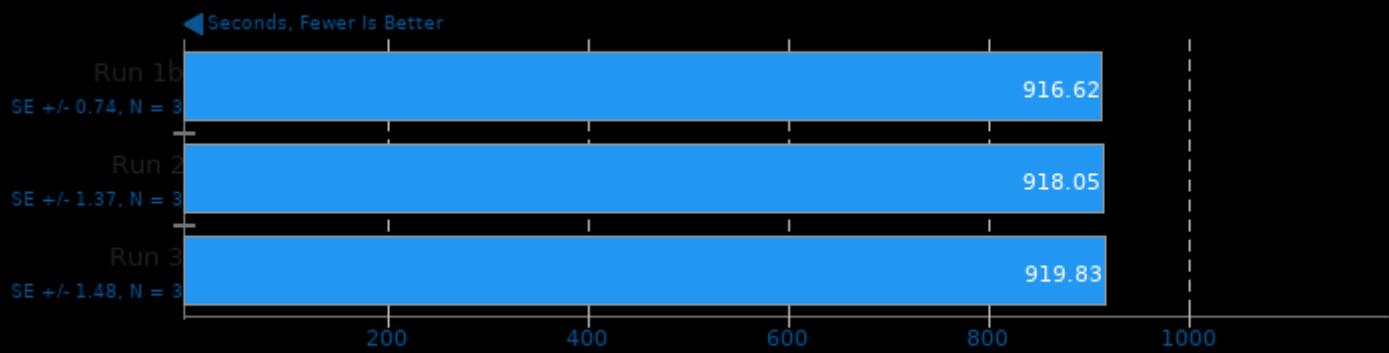
Settings: UASTC Level 3



1. (CXX) g++ options: -std=c++11 -fvisibility=hidden -fPIC -fno-strict-aliasing -O3 -rdynamic -lm -lpthread

Basis Universal 1.12

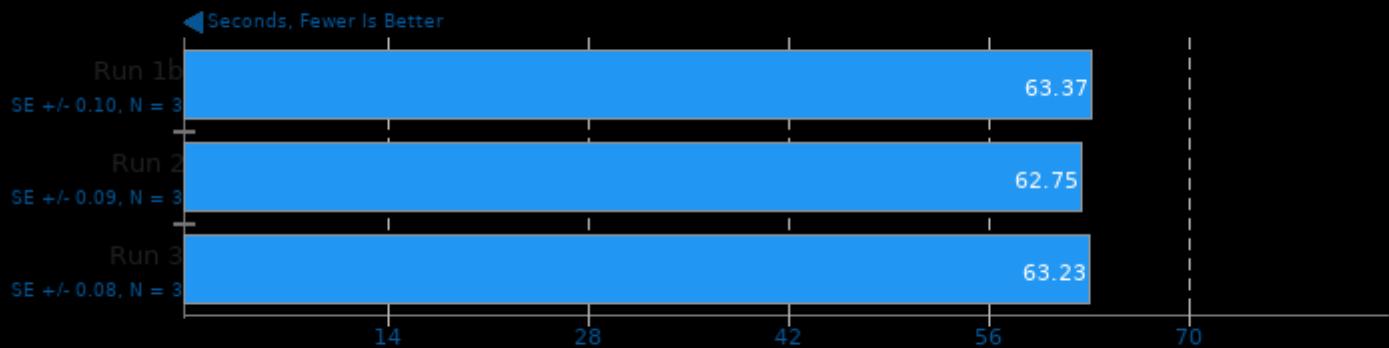
Settings: UASTC Level 2 + RDO Post-Processing



1. (CXX) g++ options: -std=c++11 -fvisibility=hidden -fPIC -fno-strict-aliasing -O3 -rdynamic -lm -lpthread

SQLite Speedtest 3.30

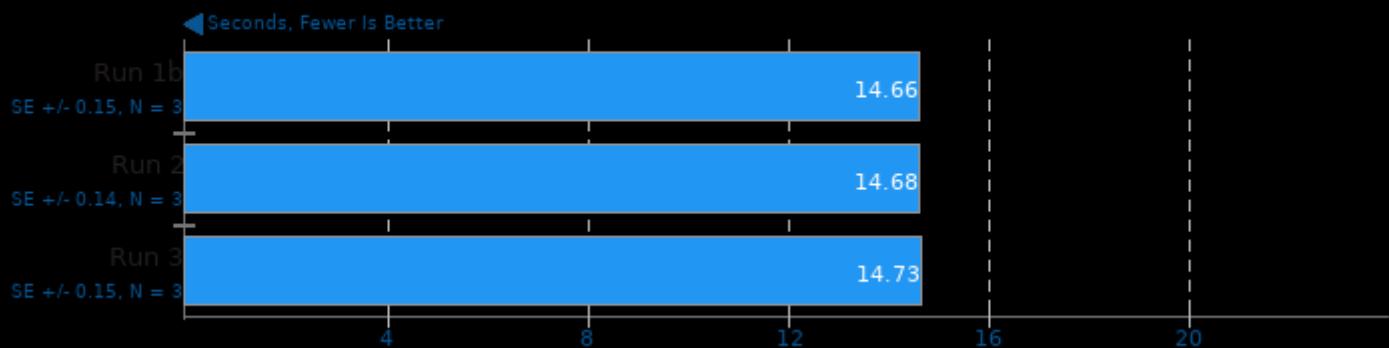
Timed Time - Size 1,000



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

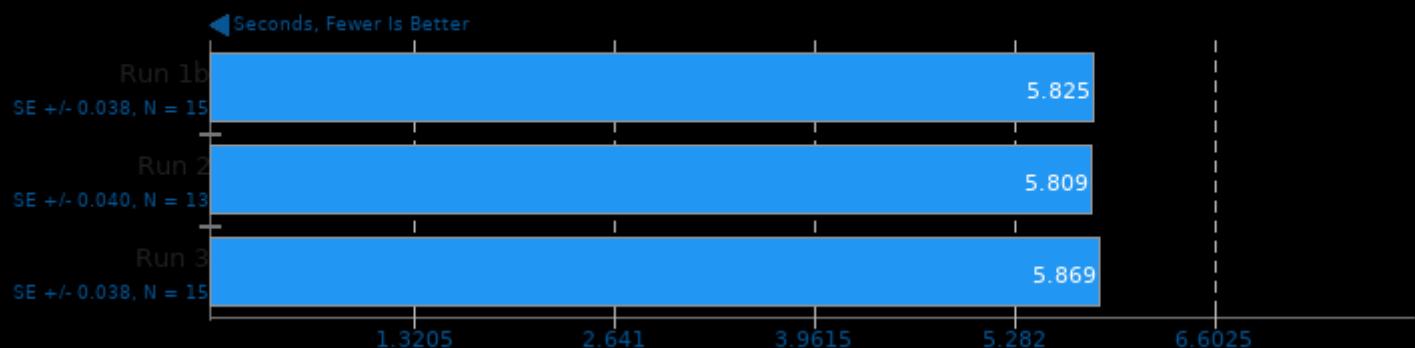
Darktable 3.2.1

Test: Boat - Acceleration: CPU-only



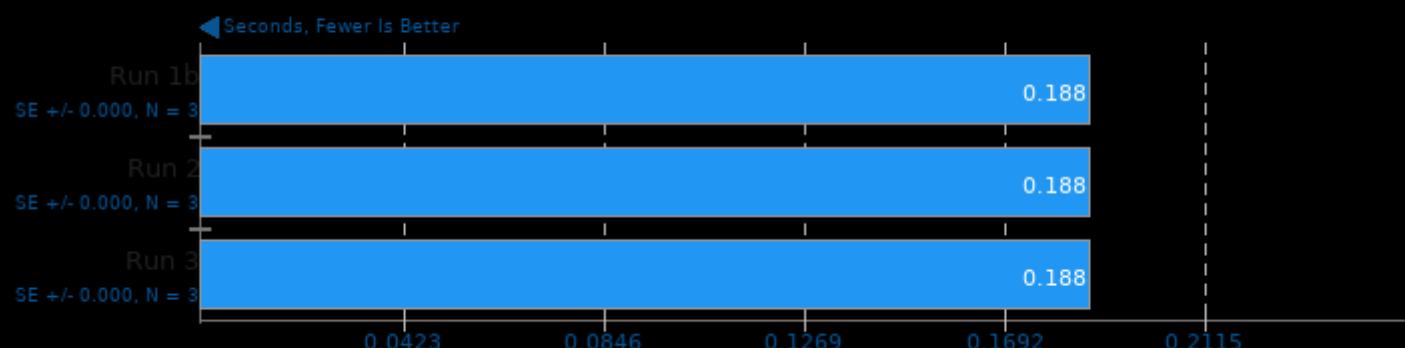
Darktable 3.2.1

Test: Masskrug - Acceleration: CPU-only



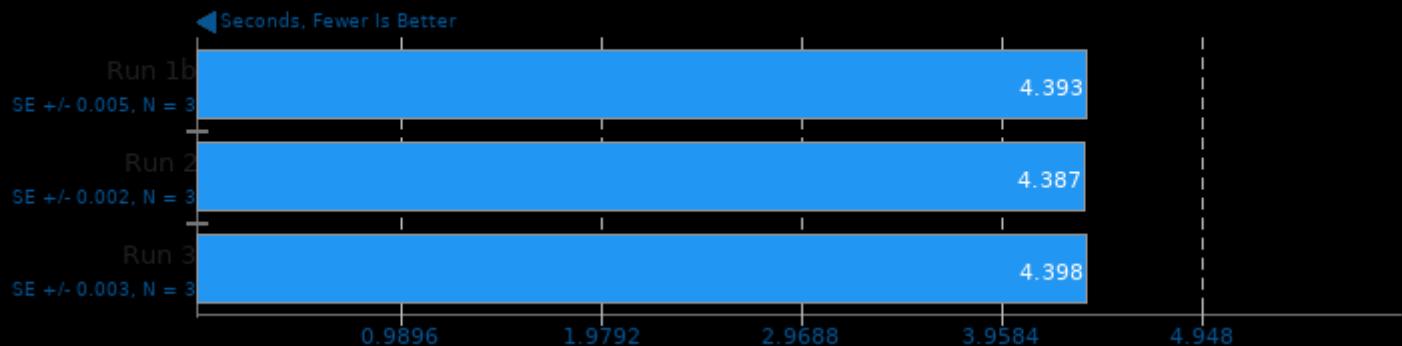
Darktable 3.2.1

Test: Server Rack - Acceleration: CPU-only



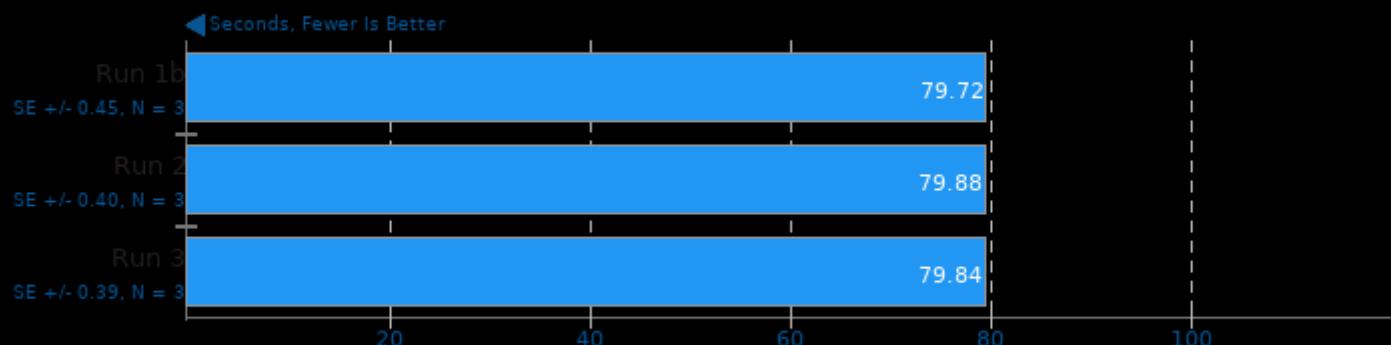
Darktable 3.2.1

Test: Server Room - Acceleration: CPU-only



RawTherapee

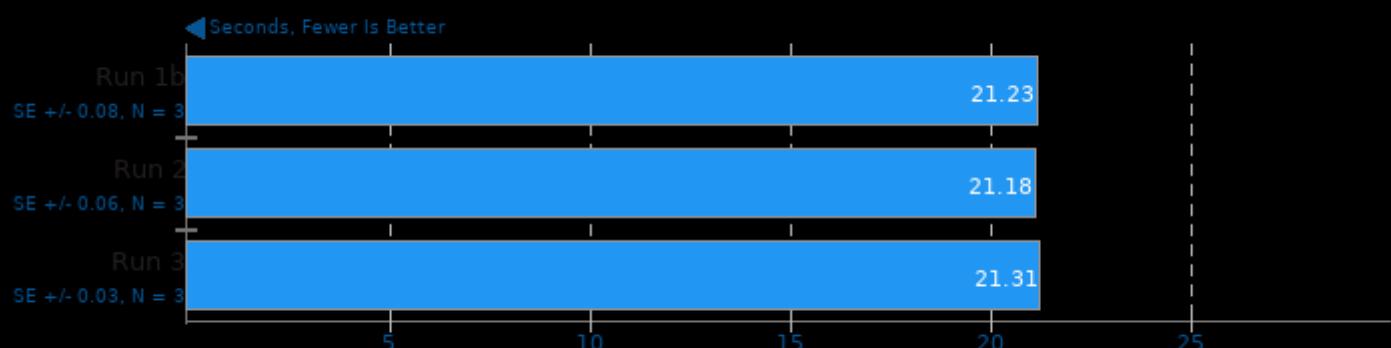
Total Benchmark Time



1. RawTherapee, version 5.8, command line.

librsvg

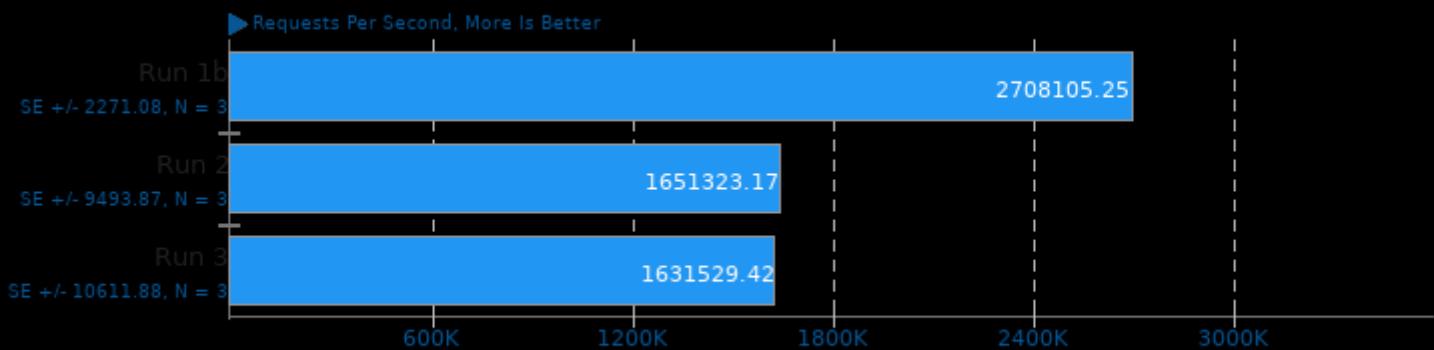
Operation: SVG Files To PNG



1. rsvg-convert version 2.50.1

Redis 6.0.9

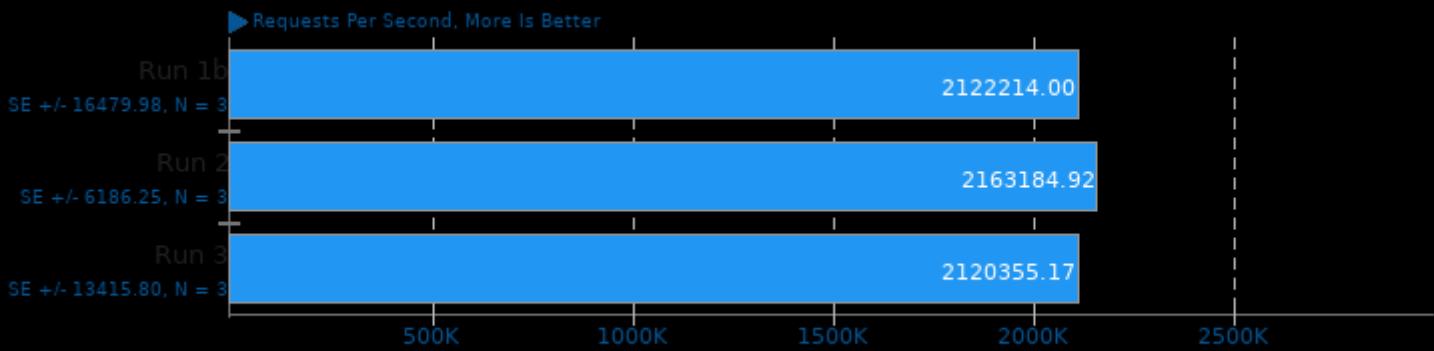
Test: LPOP



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Redis 6.0.9

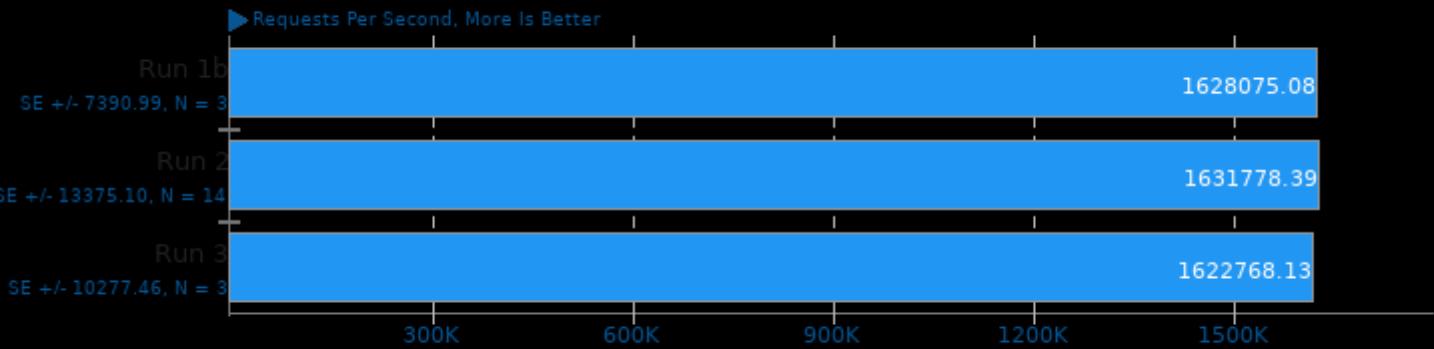
Test: SADD



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Redis 6.0.9

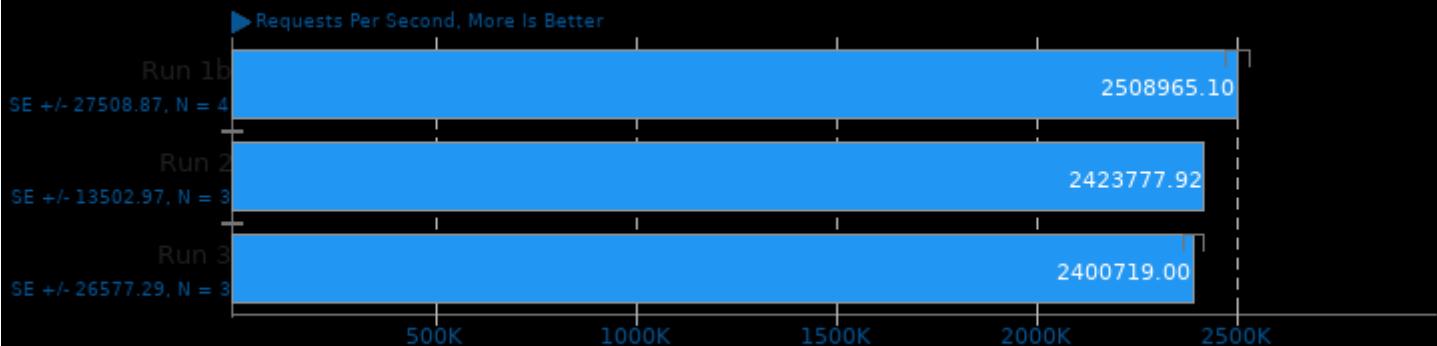
Test: LPUSH



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Redis 6.0.9

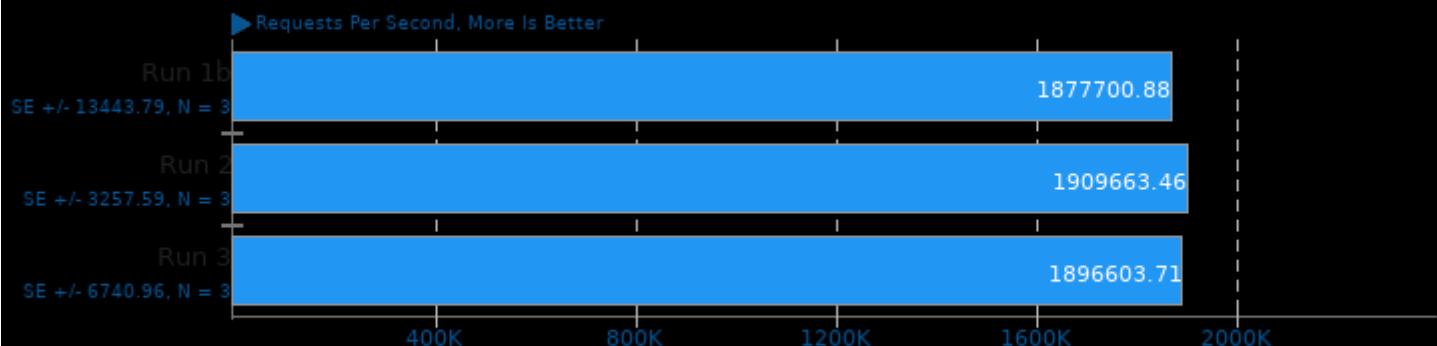
Test: GET



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Redis 6.0.9

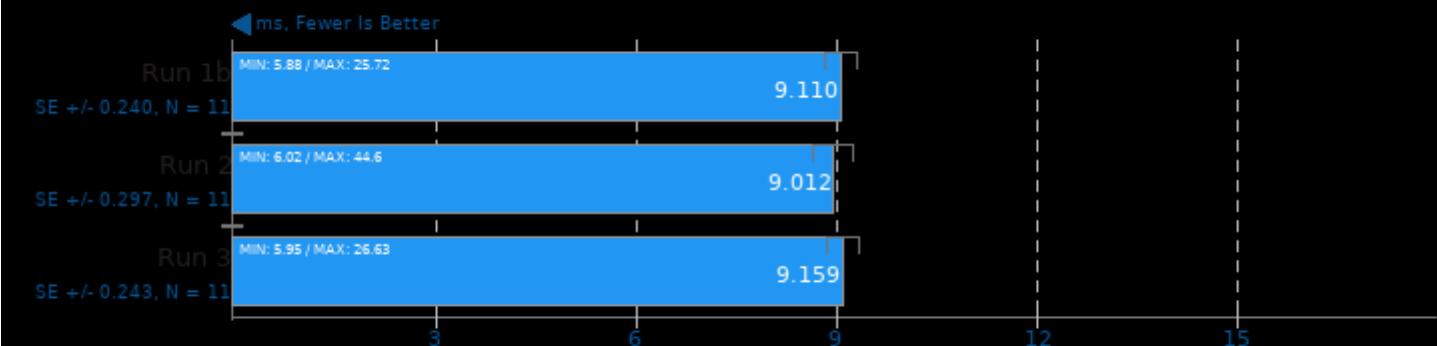
Test: SET



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Mobile Neural Network 2020-09-17

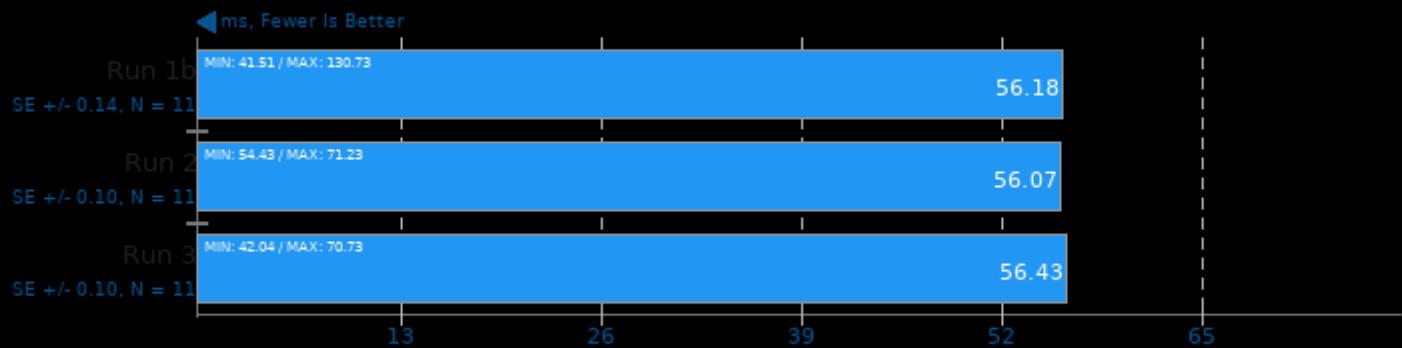
Model: SqueezeNetV1.0



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr

Mobile Neural Network 2020-09-17

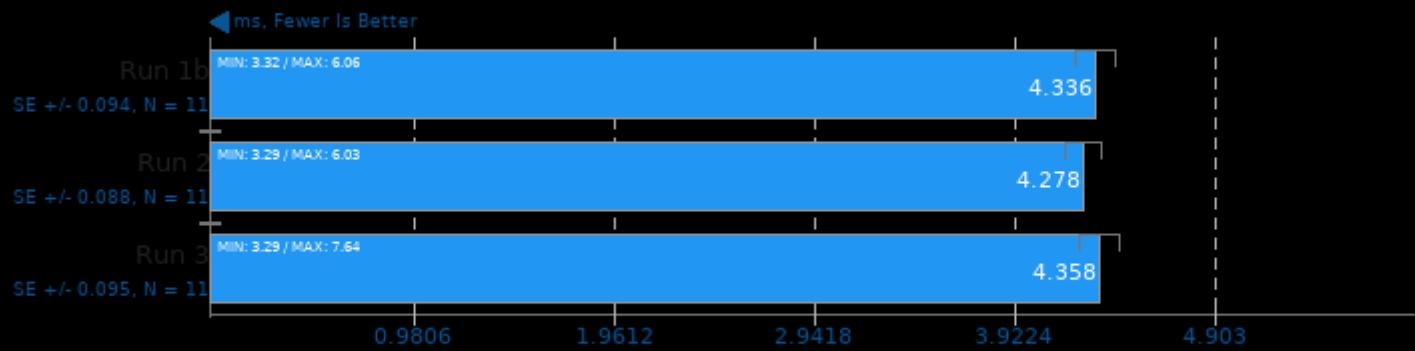
Model: resnet-v2-50



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -frtti

Mobile Neural Network 2020-09-17

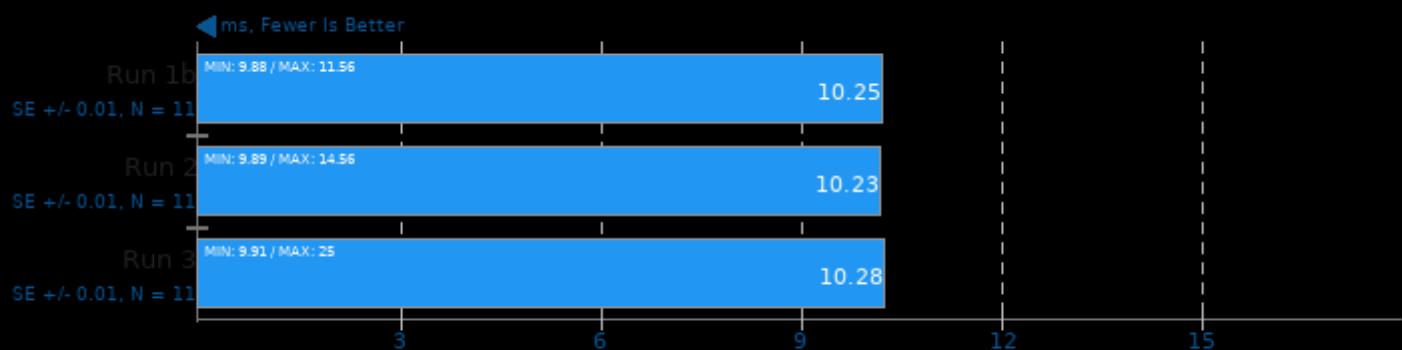
Model: MobileNetV2_224



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -frtti

Mobile Neural Network 2020-09-17

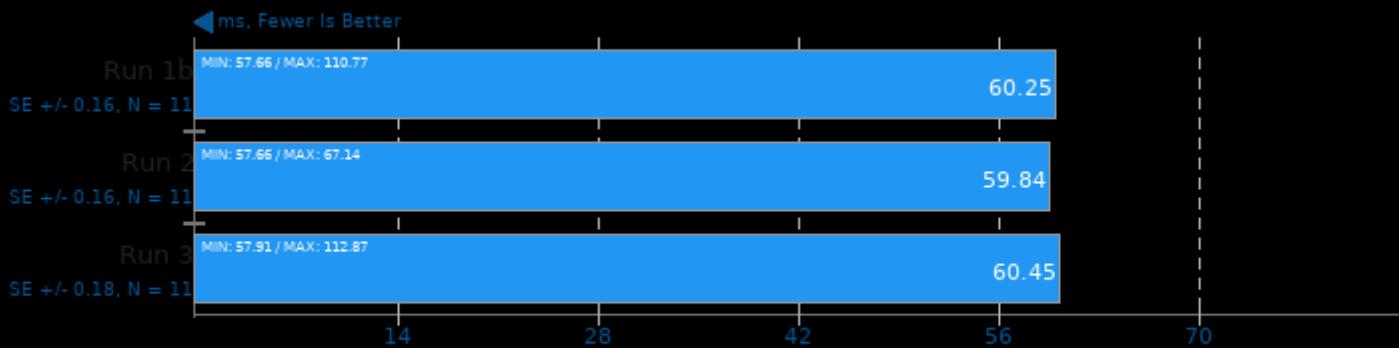
Model: mobilenet-v1-1.0



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -frtti

Mobile Neural Network 2020-09-17

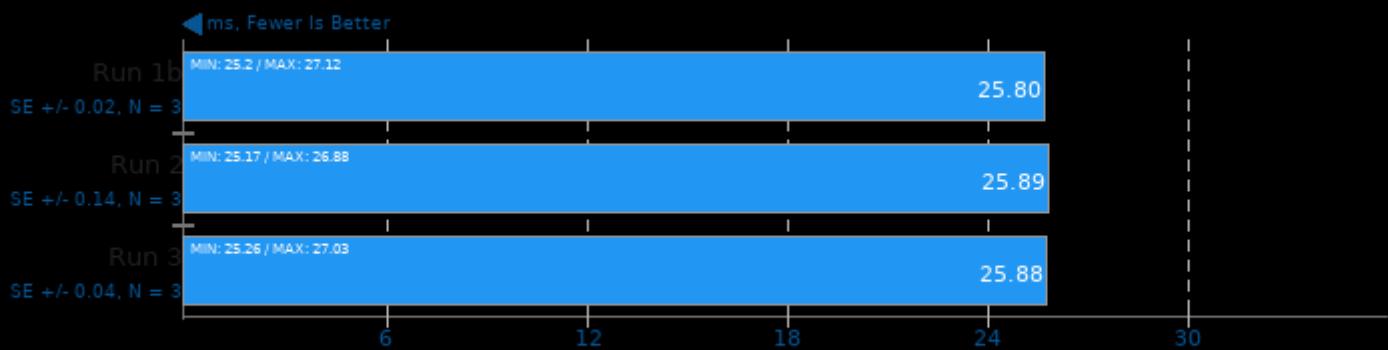
Model: inception-v3



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -frtti

NCNN 20201218

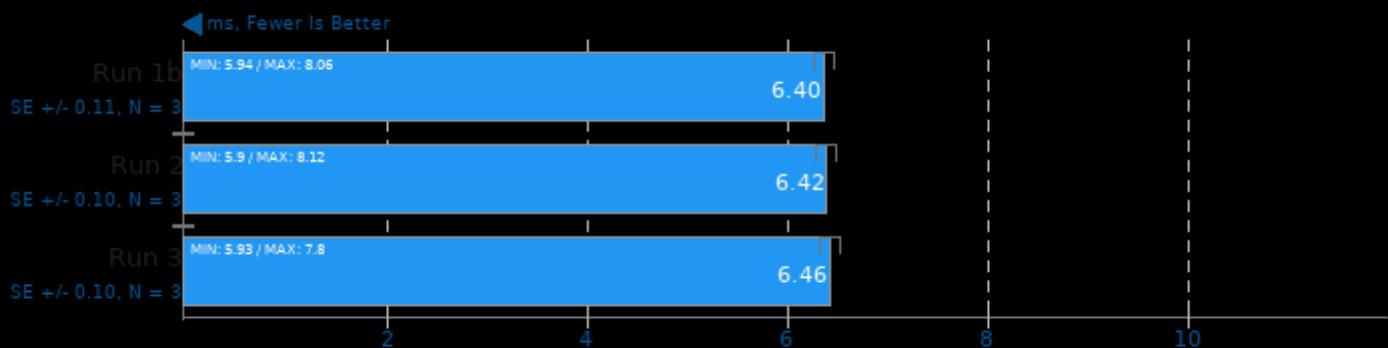
Target: CPU - Model: mobilenet



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

NCNN 20201218

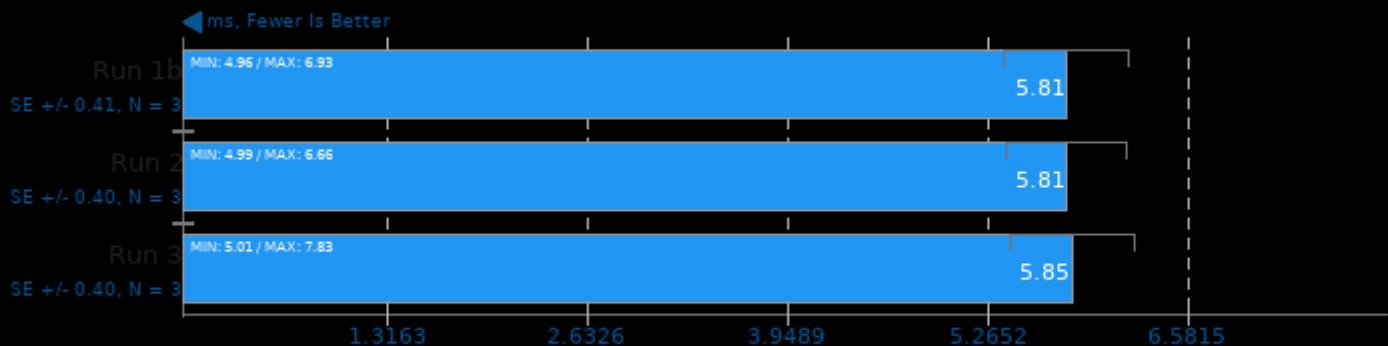
Target: CPU-v2-v2 - Model: mobilenet-v2



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

NCNN 20201218

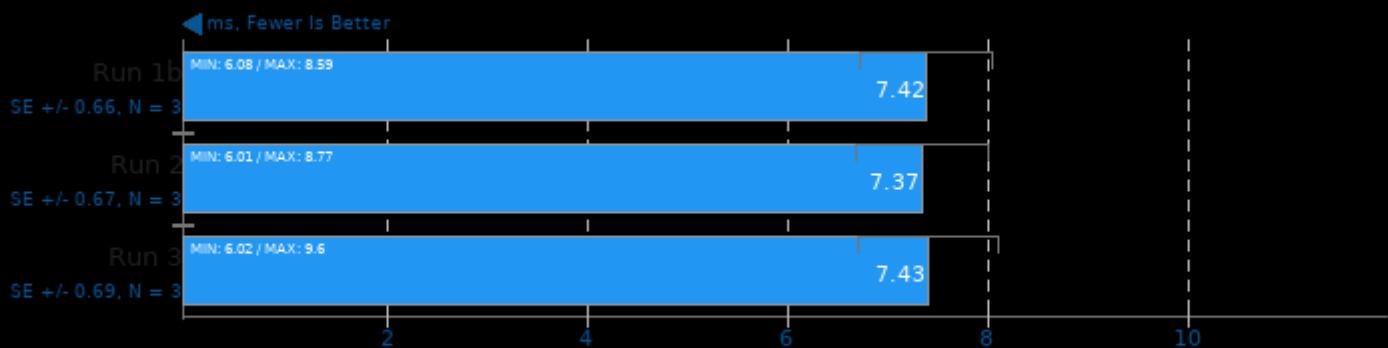
Target: CPU-v3-v3 - Model: mobilenet-v3



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

NCNN 20201218

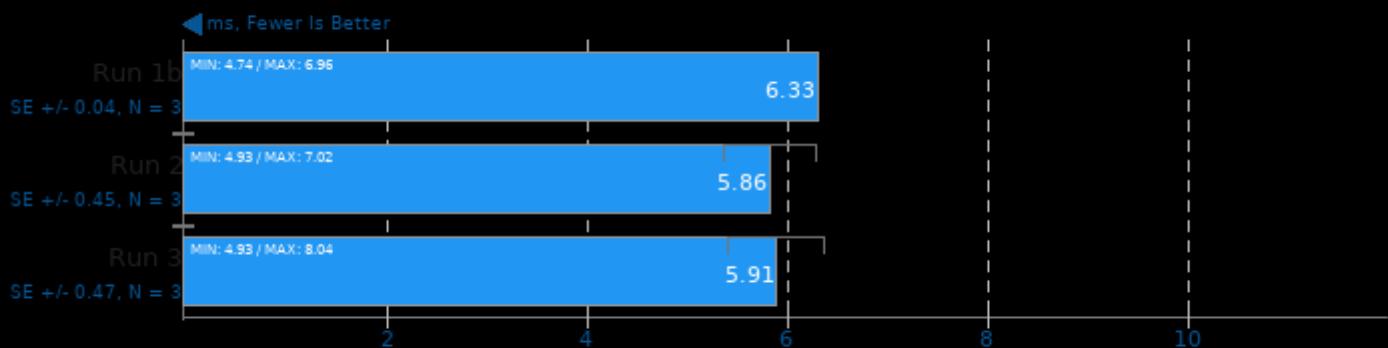
Target: CPU - Model: shufflenet-v2



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

NCNN 20201218

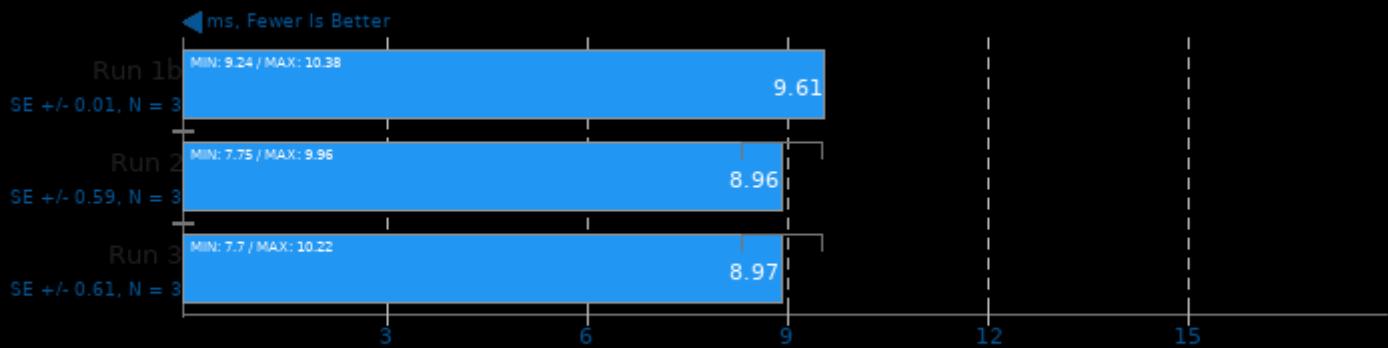
Target: CPU - Model: mnasnet



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

NCNN 20201218

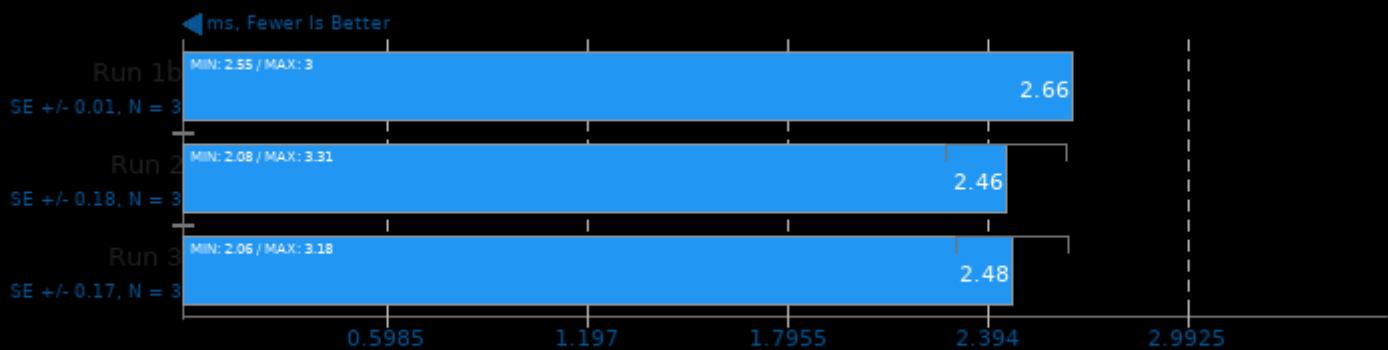
Target: CPU - Model: efficientnet-b0



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

NCNN 20201218

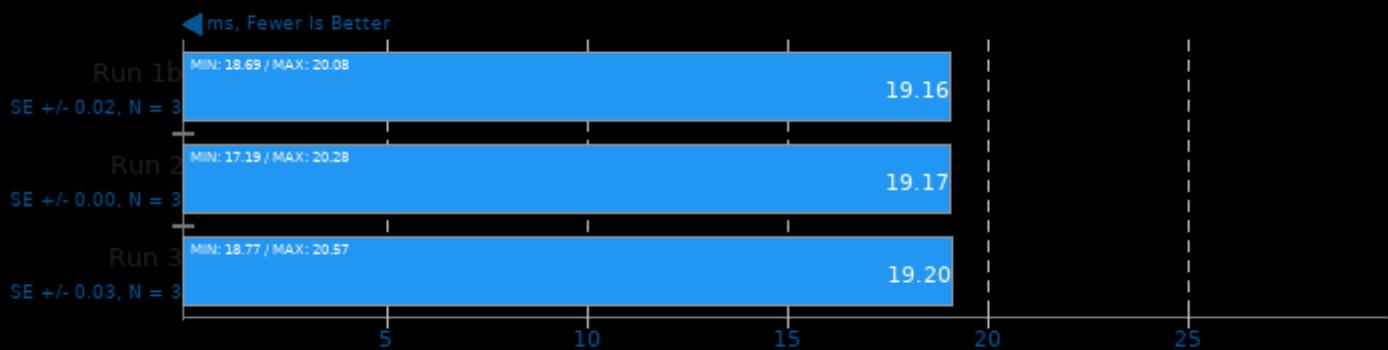
Target: CPU - Model: blazeface



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

NCNN 20201218

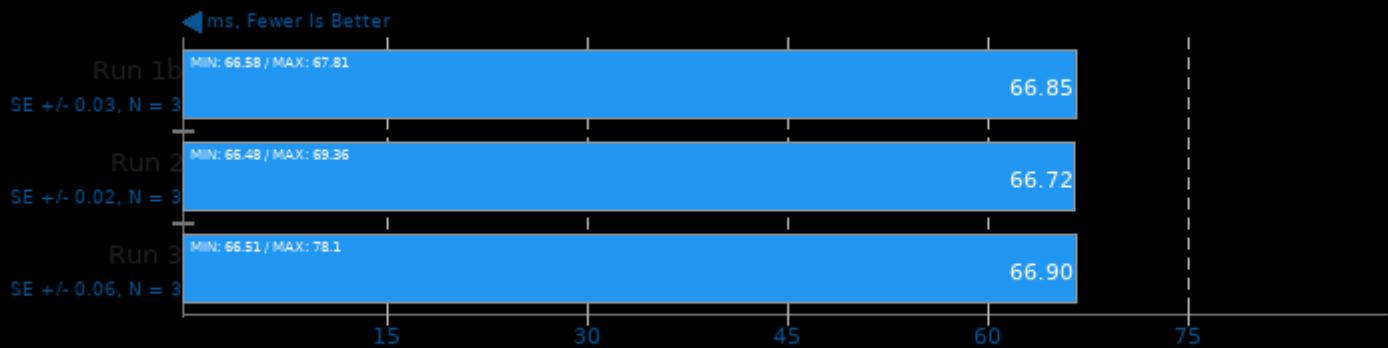
Target: CPU - Model: googlenet



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

NCNN 20201218

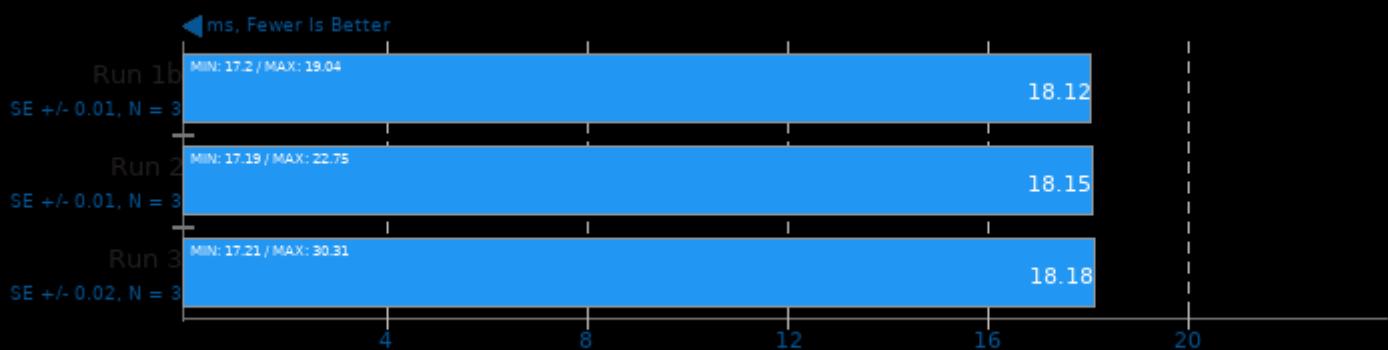
Target: CPU - Model: vgg16



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

NCNN 20201218

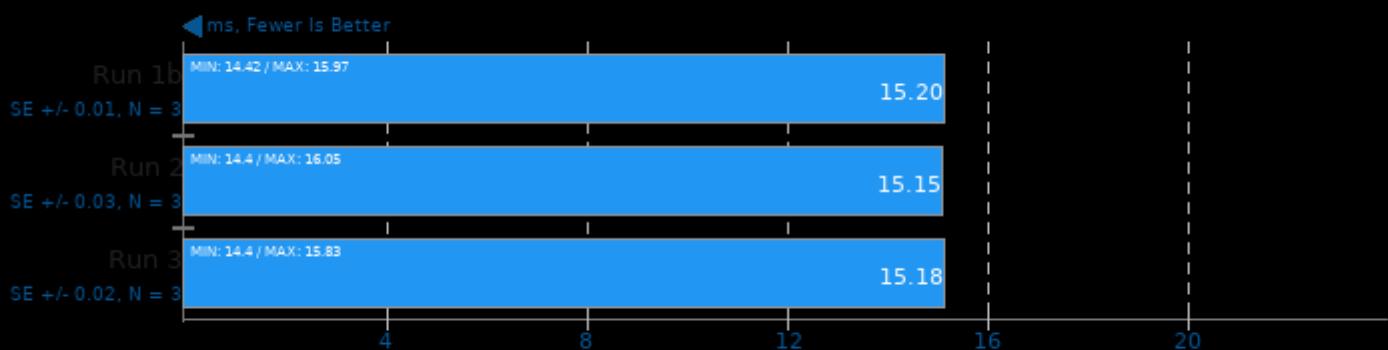
Target: CPU - Model: resnet18



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

NCNN 20201218

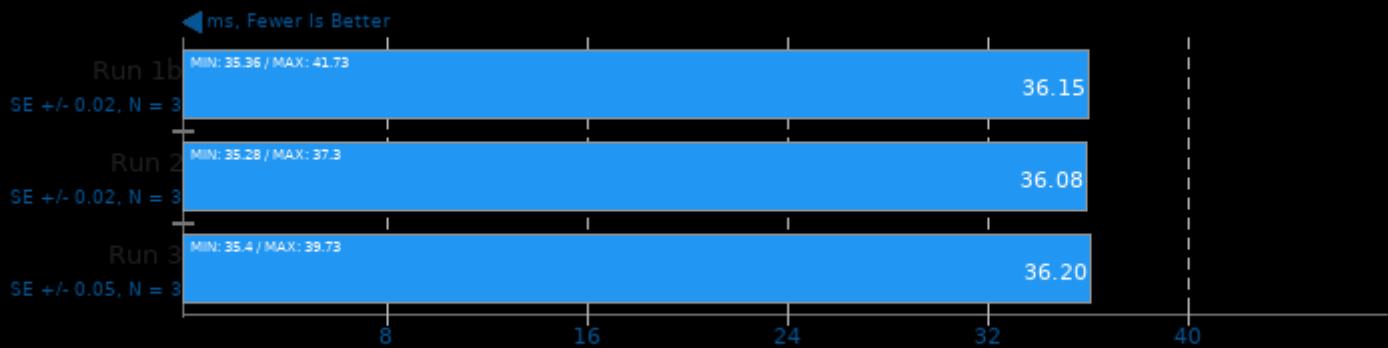
Target: CPU - Model: alexnet



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

NCNN 20201218

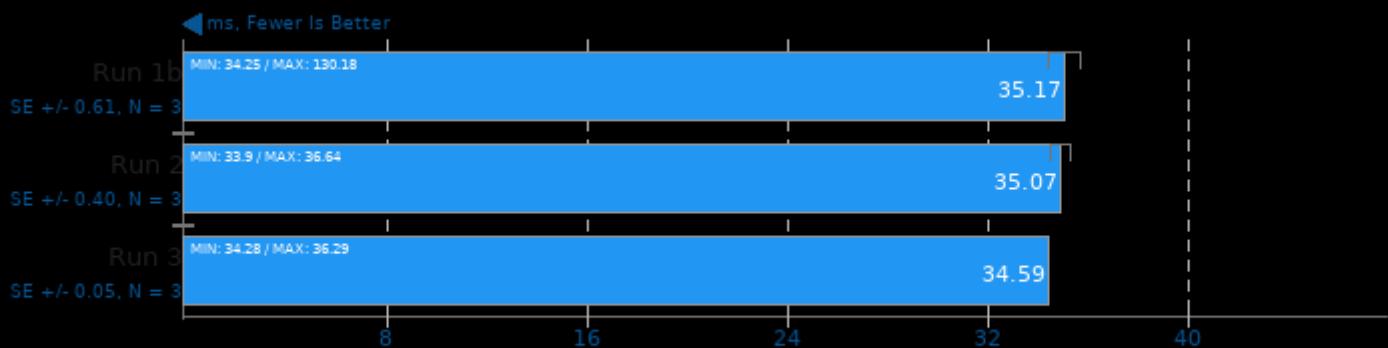
Target: CPU - Model: resnet50



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

NCNN 20201218

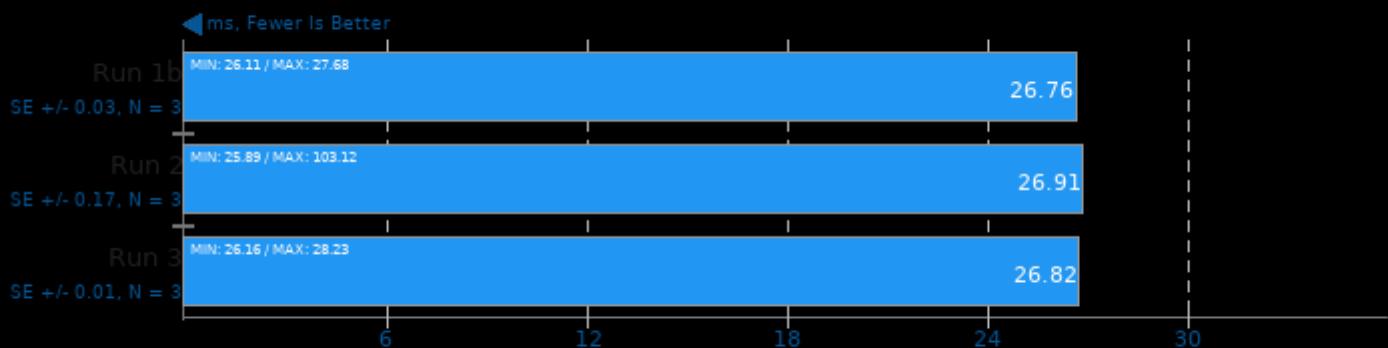
Target: CPU - Model: yolov4-tiny



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

NCNN 20201218

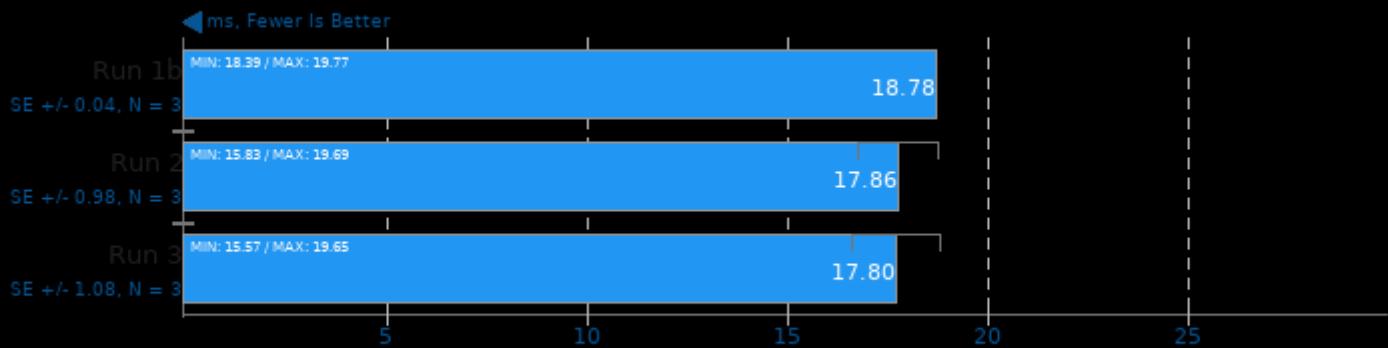
Target: CPU - Model: squeezezenet_ssdl



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

NCNN 20201218

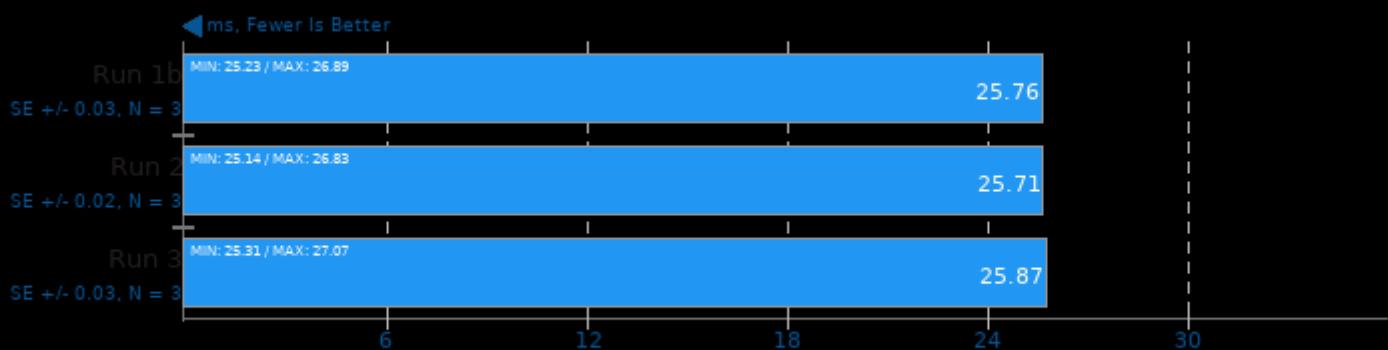
Target: CPU - Model: regnety_400m



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

NCNN 20201218

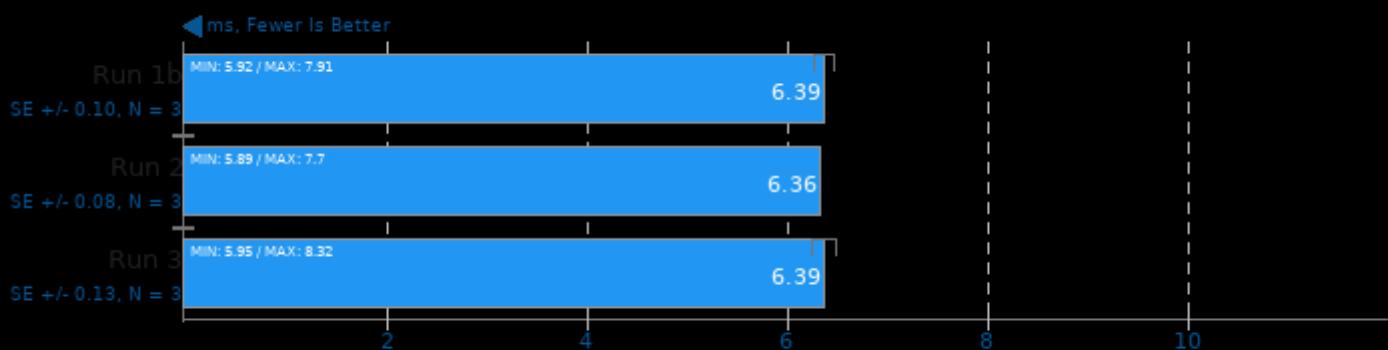
Target: Vulkan GPU - Model: mobilenet



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

NCNN 20201218

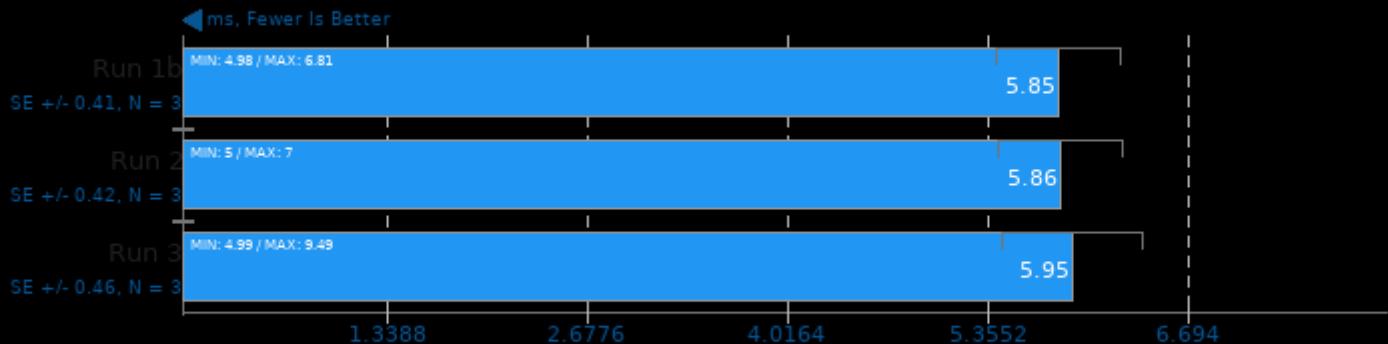
Target: Vulkan GPU-v2-v2 - Model: mobilenet-v2



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

NCNN 20201218

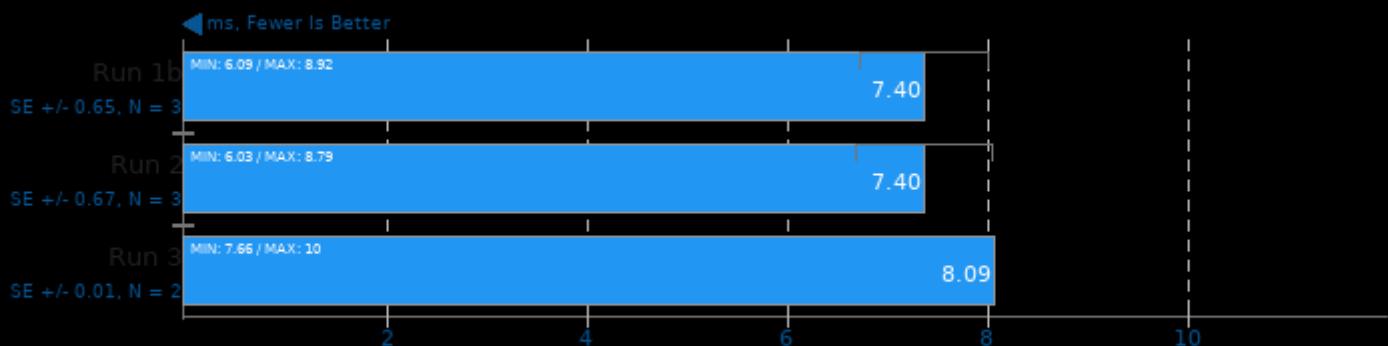
Target: Vulkan GPU-v3-v3 - Model: mobilenet-v3



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

NCNN 20201218

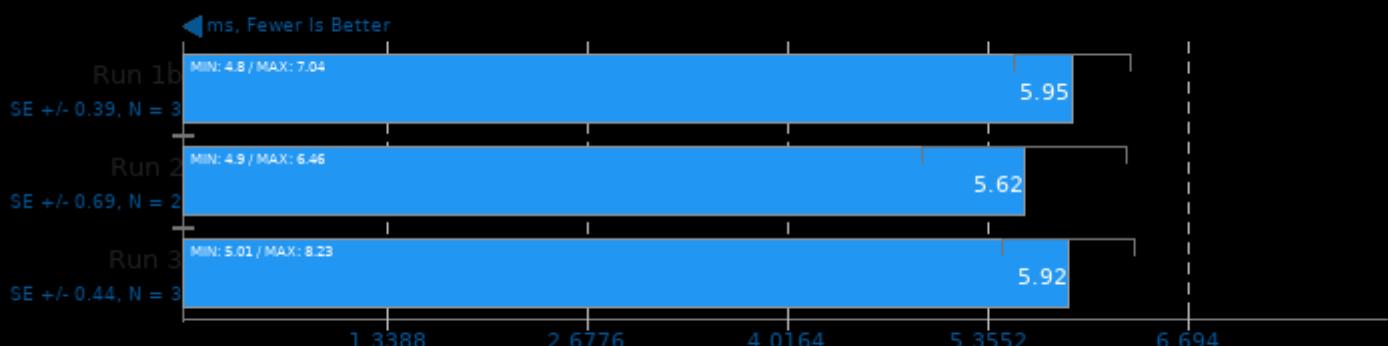
Target: Vulkan GPU - Model: shufflenet-v2



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

NCNN 20201218

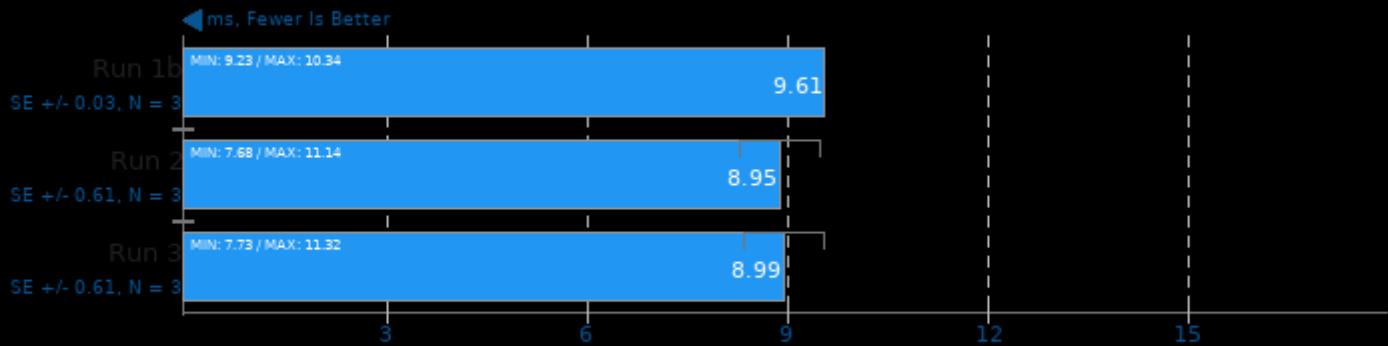
Target: Vulkan GPU - Model: mnasnet



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

NCNN 20201218

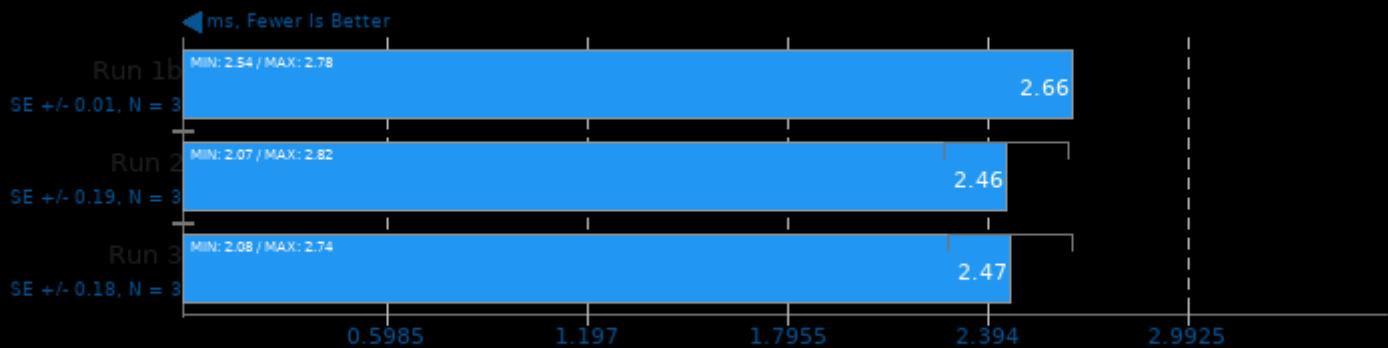
Target: Vulkan GPU - Model: efficientnet-b0



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

NCNN 20201218

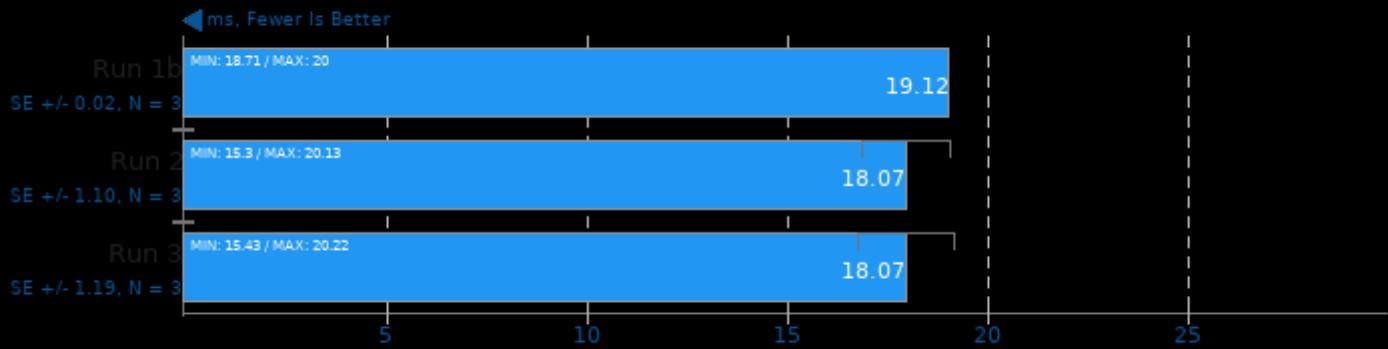
Target: Vulkan GPU - Model: blazeface



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

NCNN 20201218

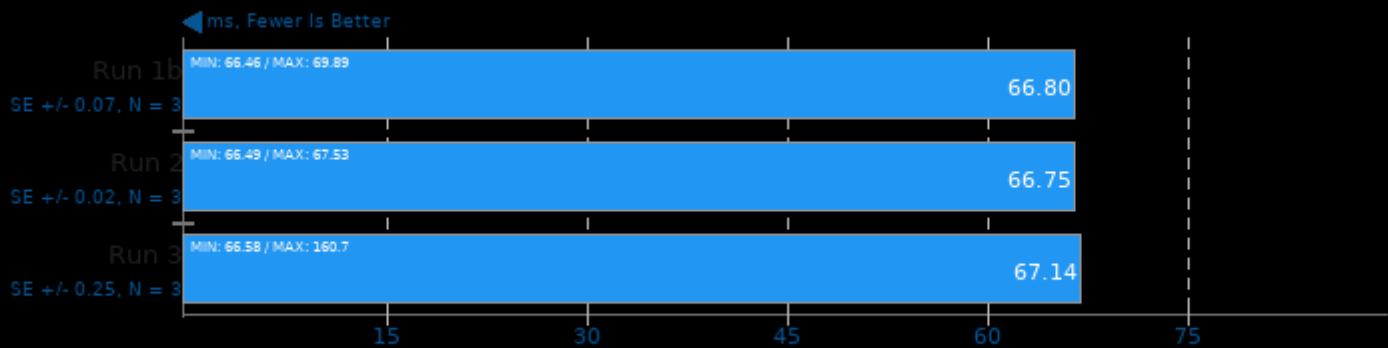
Target: Vulkan GPU - Model: googlenet



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

NCNN 20201218

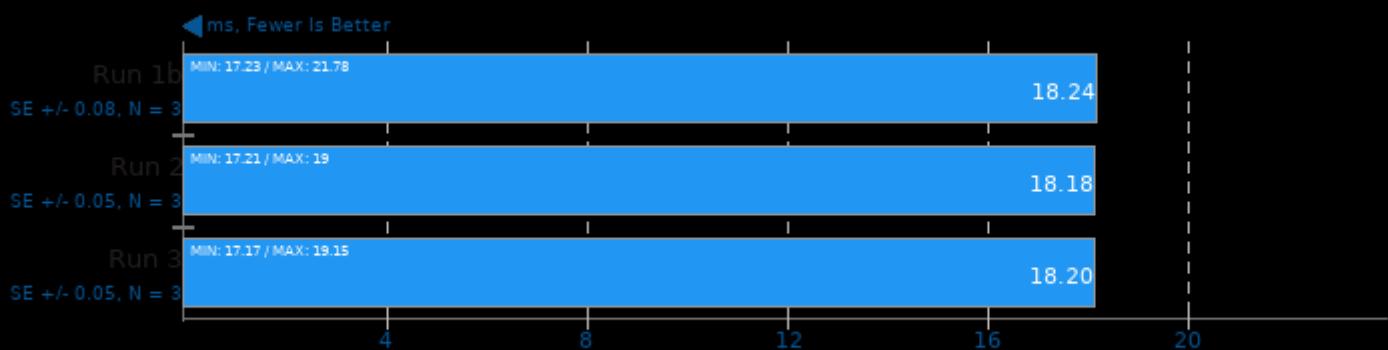
Target: Vulkan GPU - Model: vgg16



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

NCNN 20201218

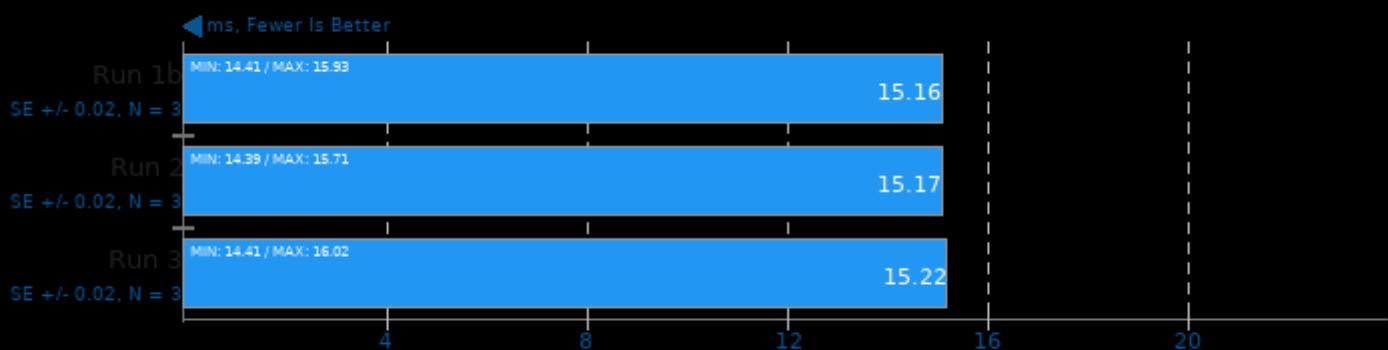
Target: Vulkan GPU - Model: resnet18



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

NCNN 20201218

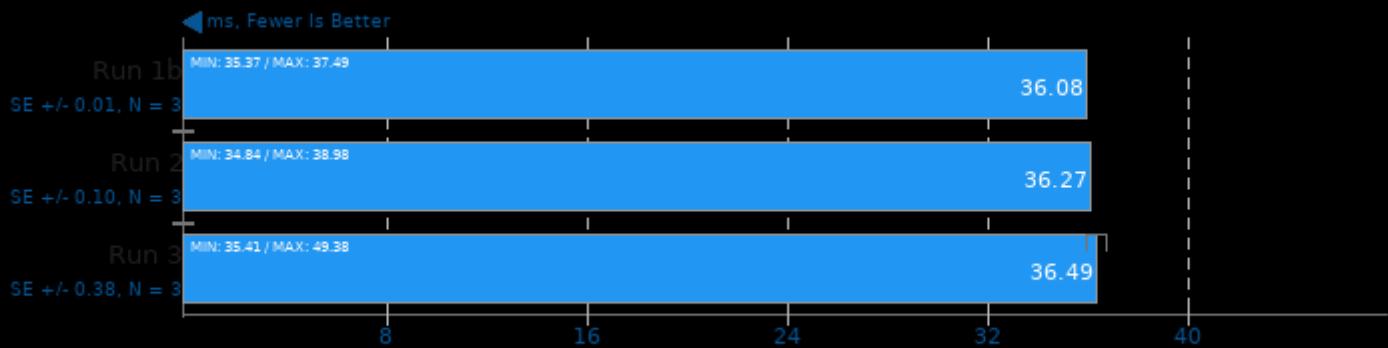
Target: Vulkan GPU - Model: alexnet



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

NCNN 20201218

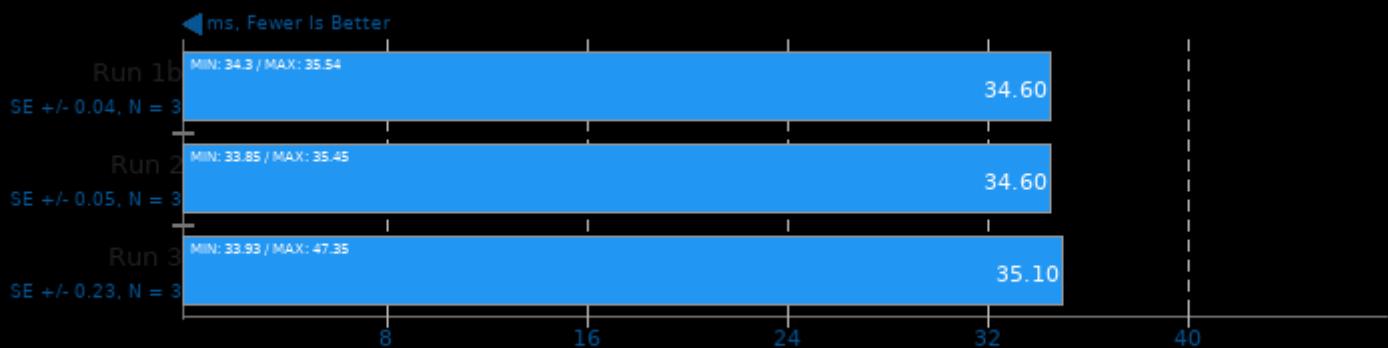
Target: Vulkan GPU - Model: resnet50



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

NCNN 20201218

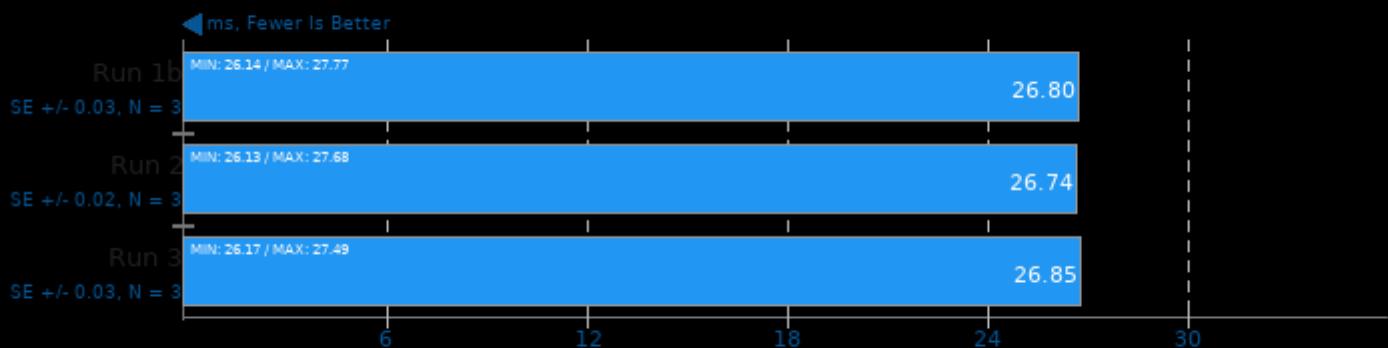
Target: Vulkan GPU - Model: yolov4-tiny



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

NCNN 20201218

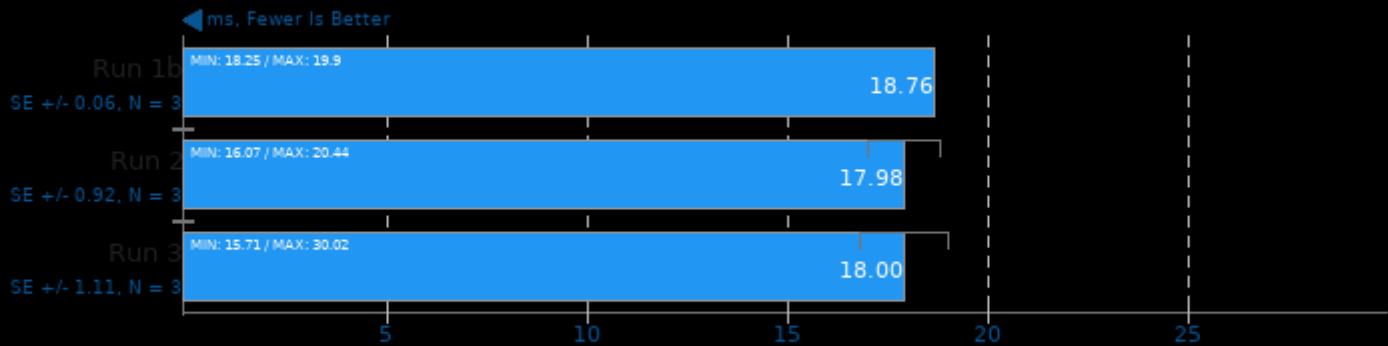
Target: Vulkan GPU - Model: squeezenet_ssdlite



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

NCNN 20201218

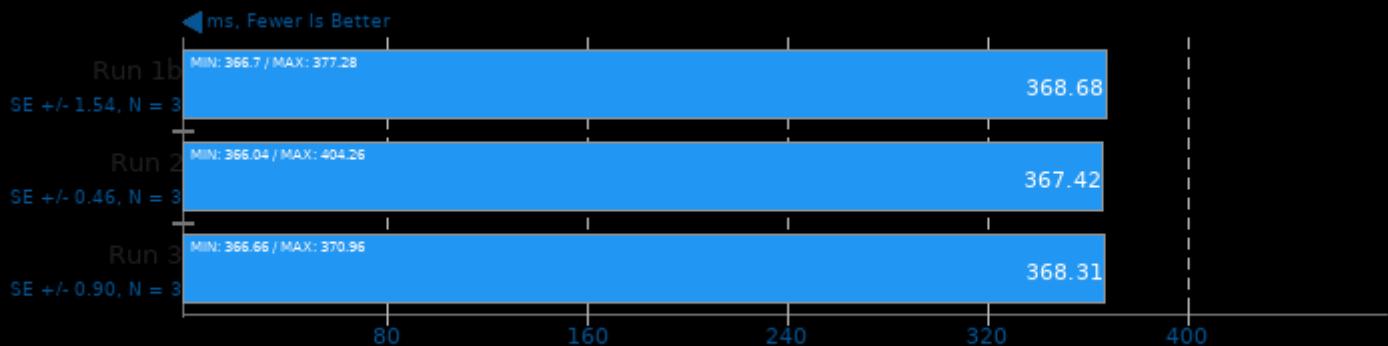
Target: Vulkan GPU - Model: regnety_400m



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

TNN 0.2.3

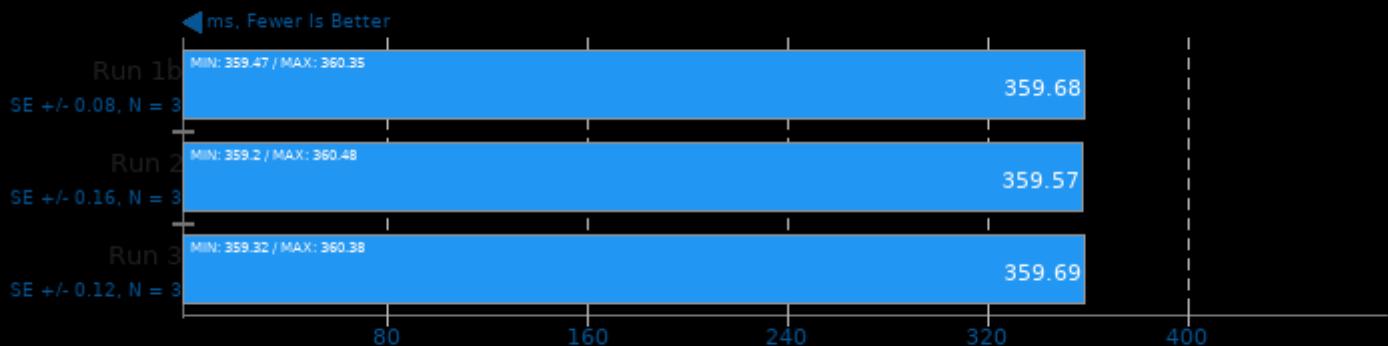
Target: CPU - Model: MobileNet v2



1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -O3 -rdynamic -ldl

TNN 0.2.3

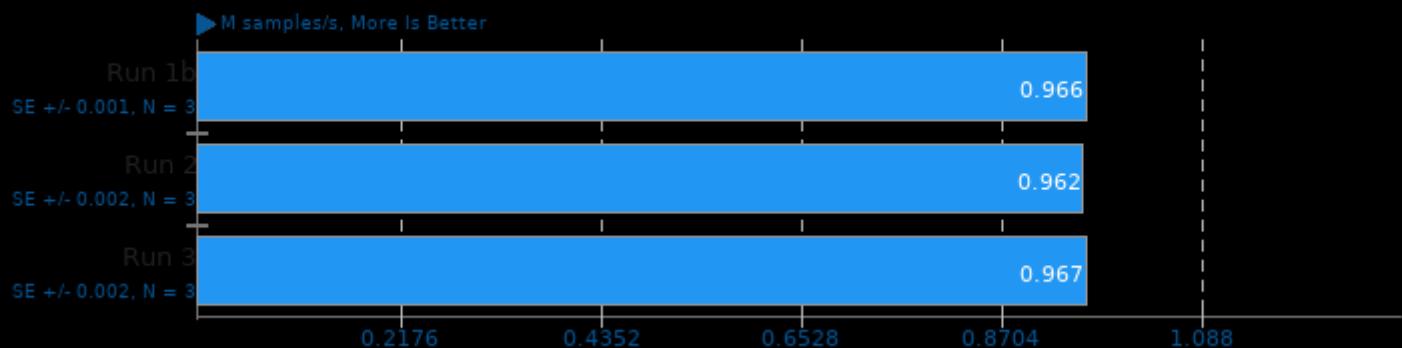
Target: CPU - Model: SqueezeNet v1.1



1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -O3 -rdynamic -ldl

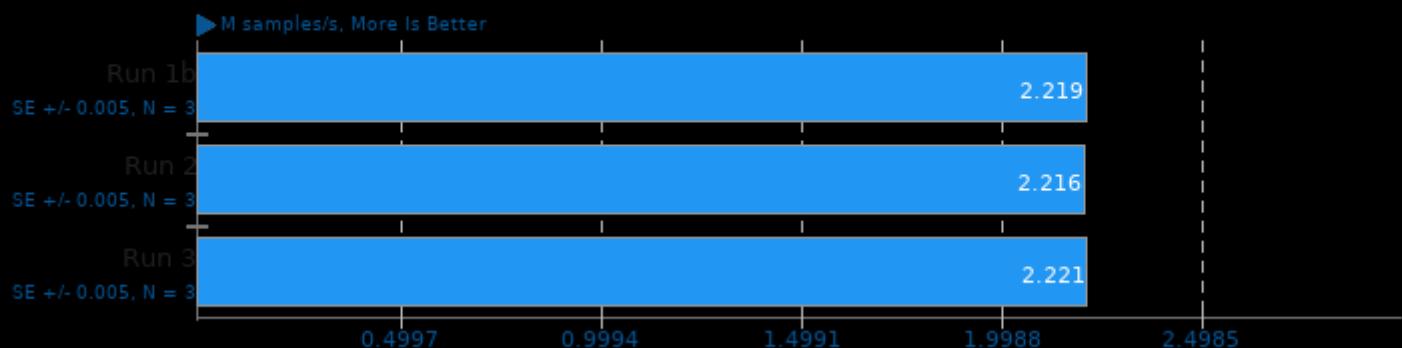
IndigoBench 4.4

Acceleration: CPU - Scene: Bedroom



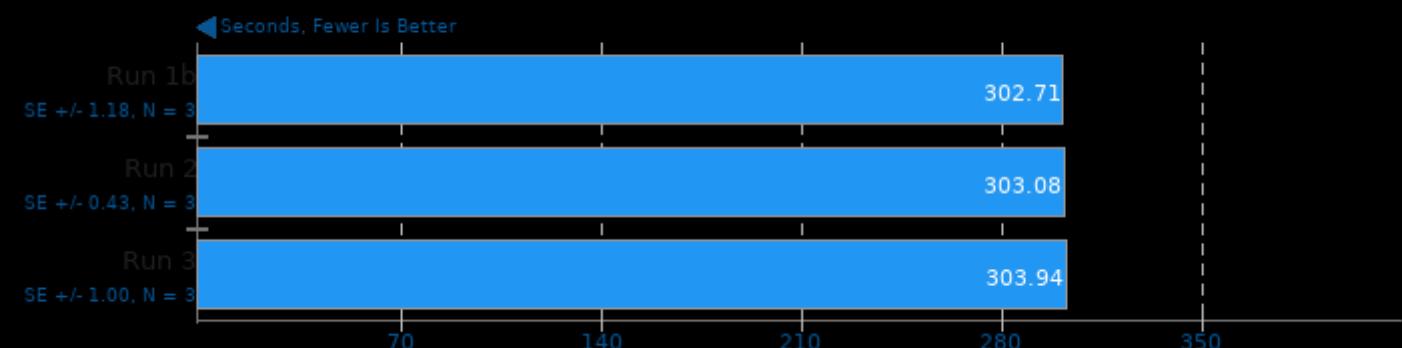
IndigoBench 4.4

Acceleration: CPU - Scene: Supercar



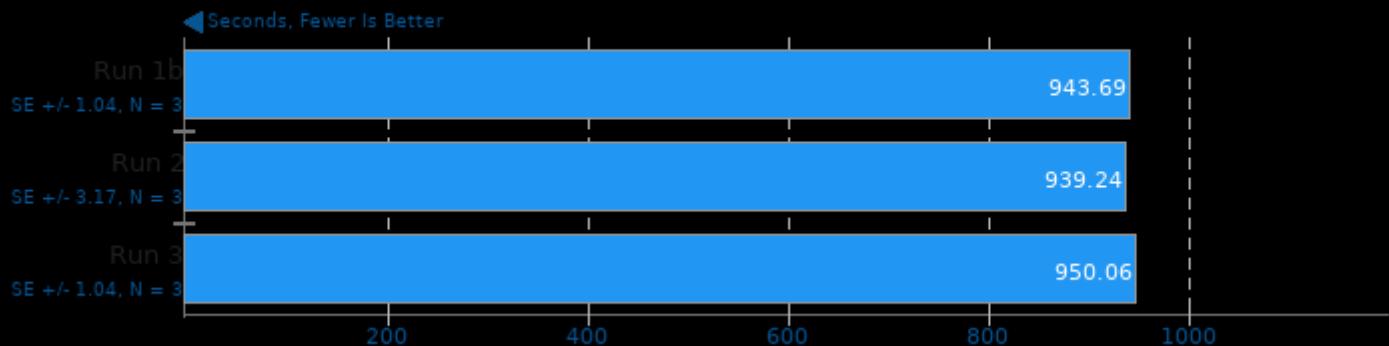
Blender 2.90

Blend File: BMW27 - Compute: CPU-Only



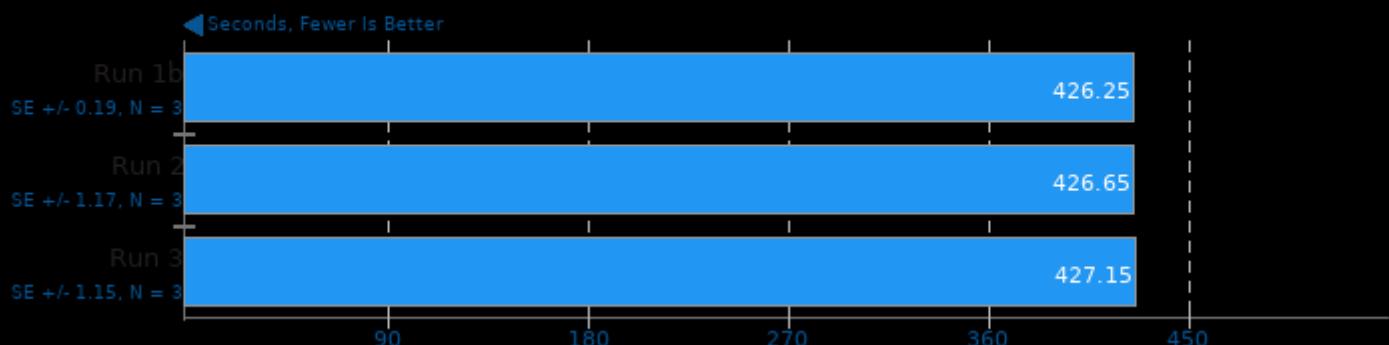
Blender 2.90

Blend File: Classroom - Compute: CPU-Only



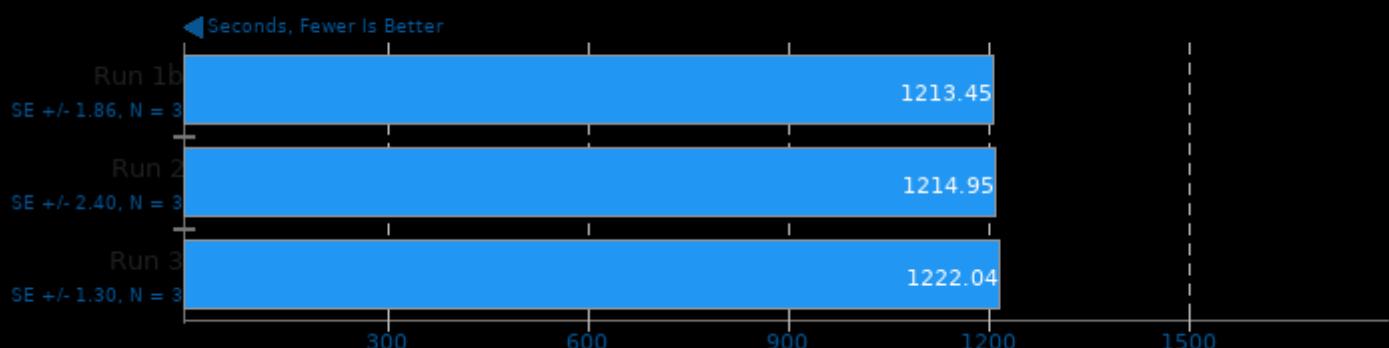
Blender 2.90

Blend File: Fishy Cat - Compute: CPU-Only



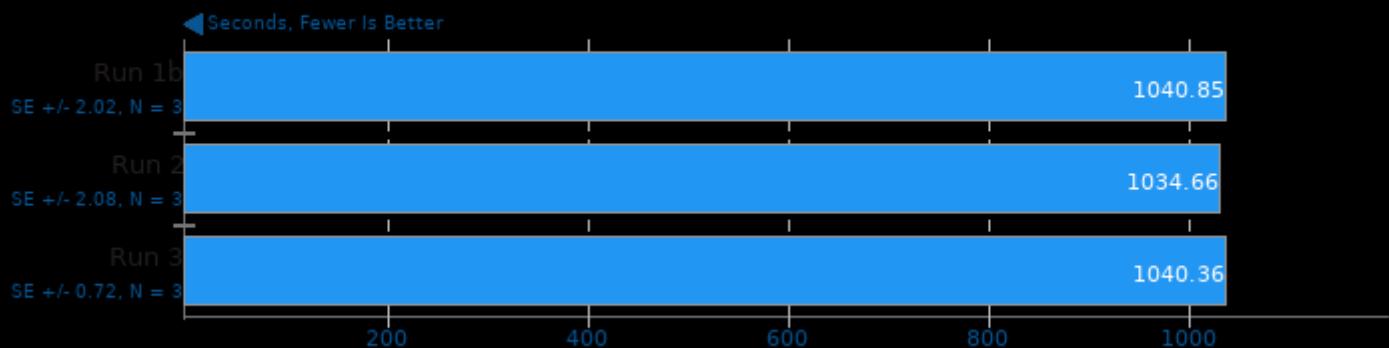
Blender 2.90

Blend File: Barbershop - Compute: CPU-Only



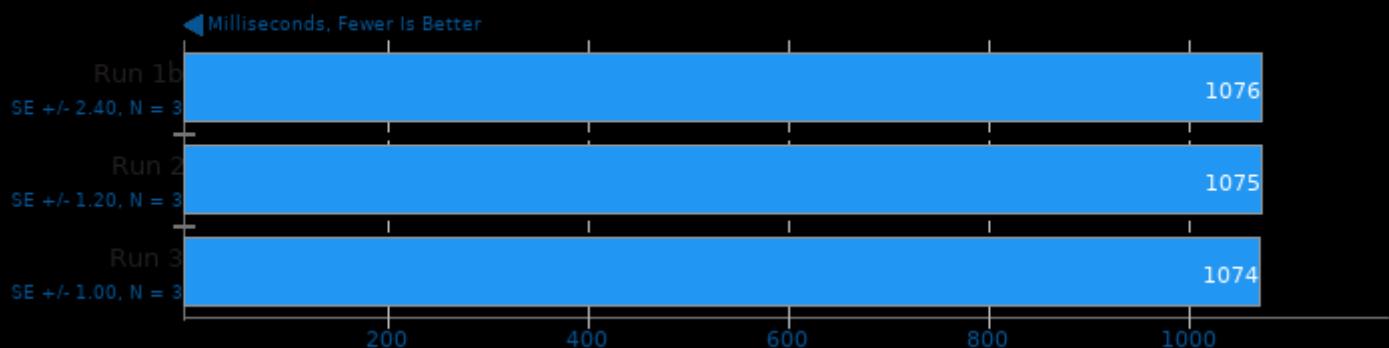
Blender 2.90

Blend File: Pabellon Barcelona - Compute: CPU-Only



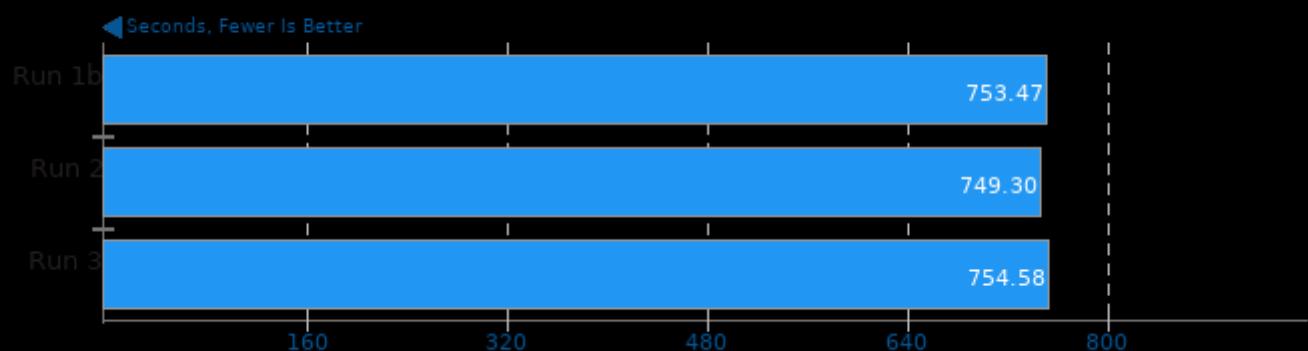
PyBench 2018-02-16

Total For Average Test Times



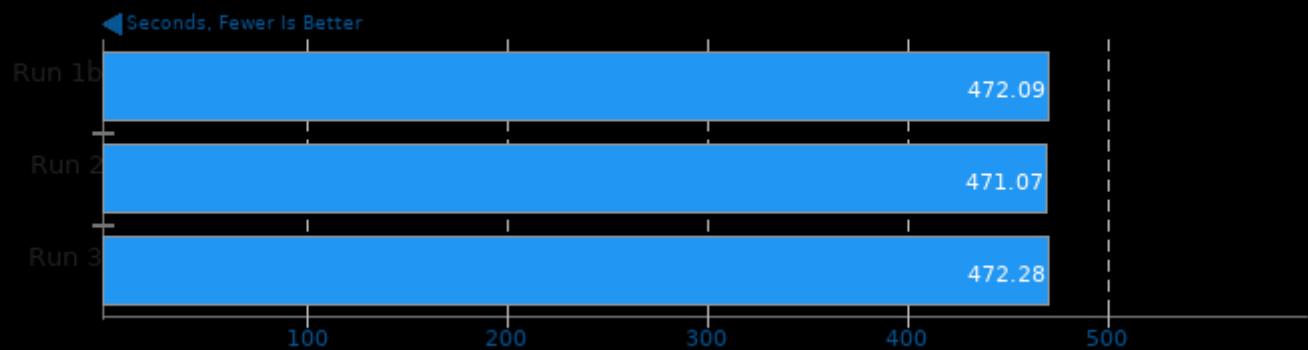
Appleseed 2.0 Beta

Scene: Emily



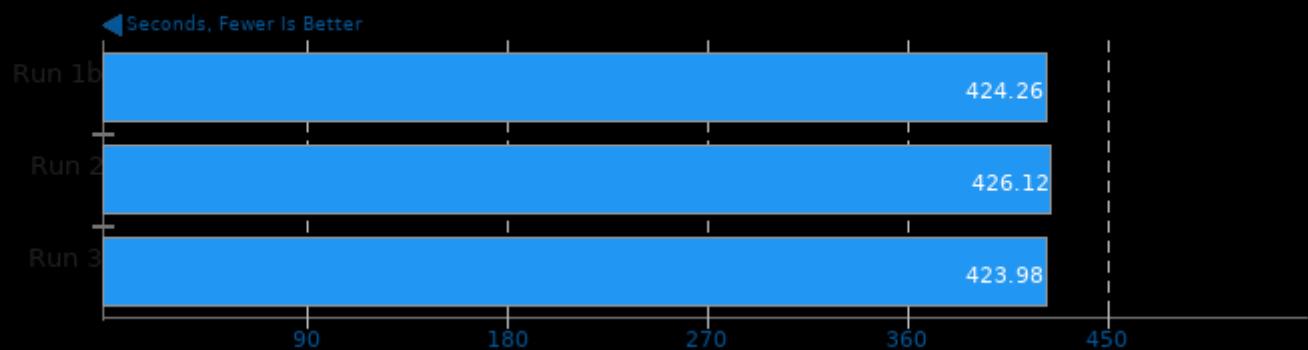
Appleseed 2.0 Beta

Scene: Disney Material



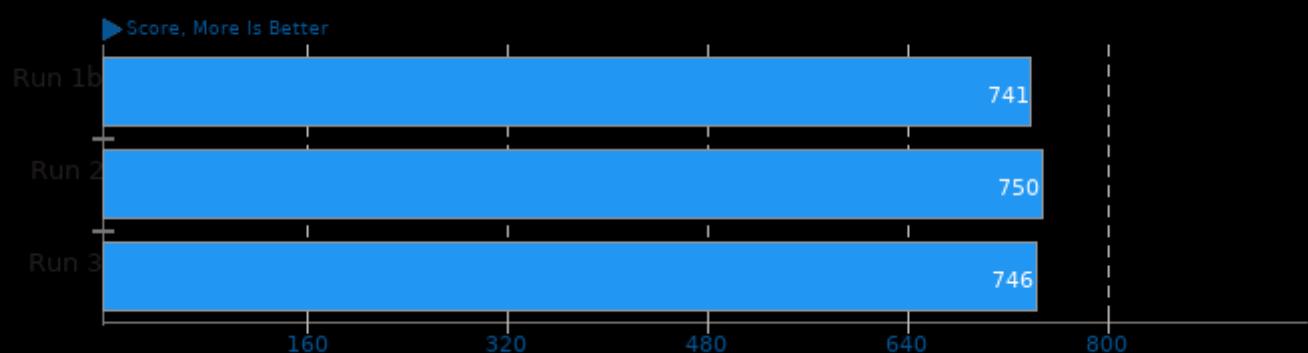
Appleseed 2.0 Beta

Scene: Material Tester



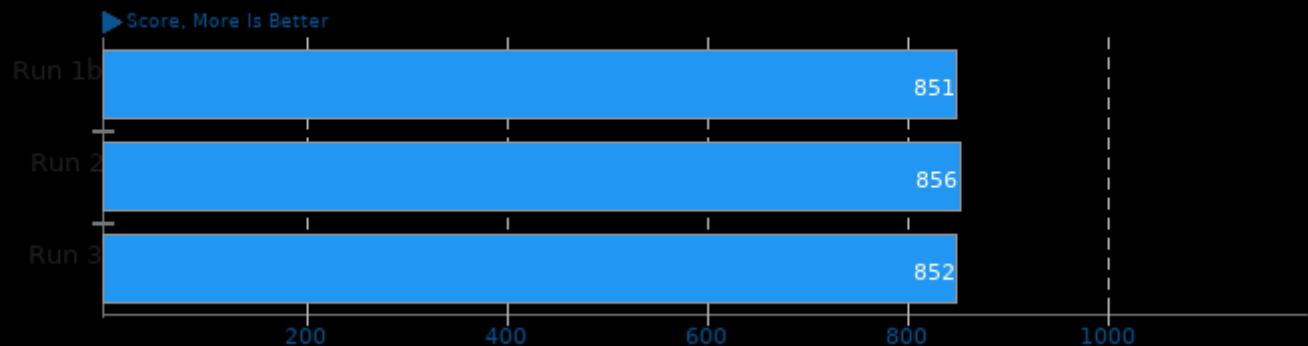
AI Benchmark Alpha 0.1.2

Device Inference Score



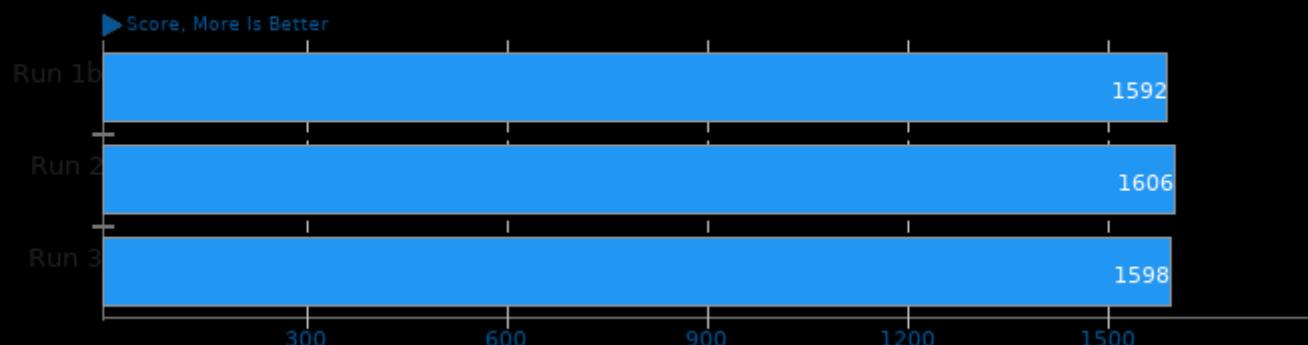
AI Benchmark Alpha 0.1.2

Device Training Score



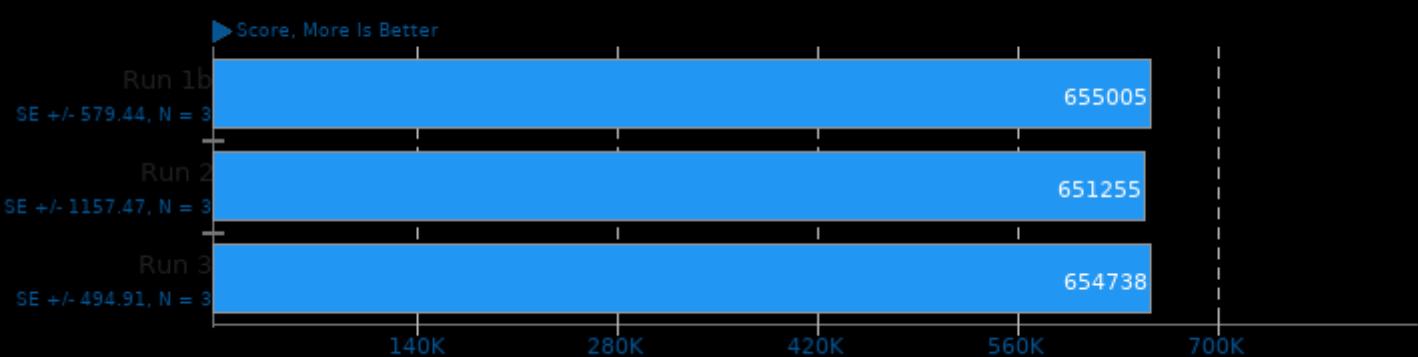
AI Benchmark Alpha 0.1.2

Device AI Score



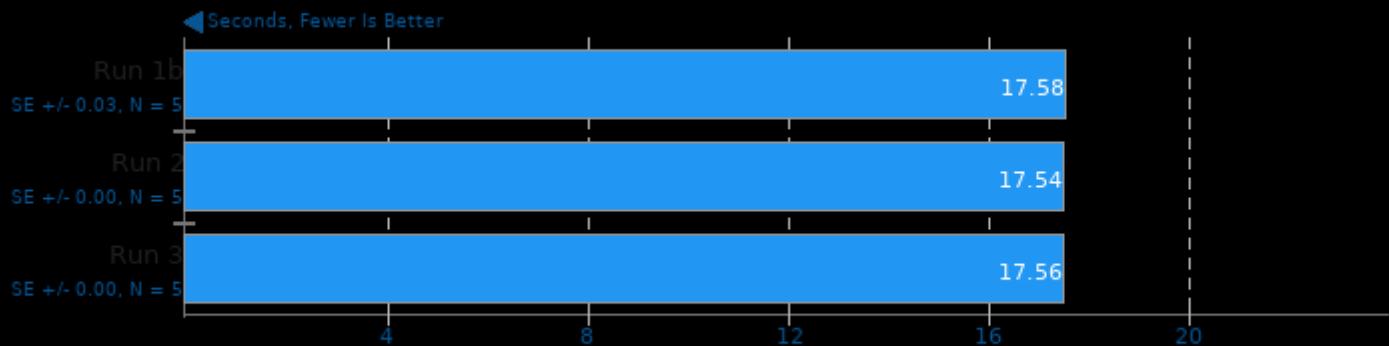
PHPBench 0.8.1

PHP Benchmark Suite



WavPack Audio Encoding 5.3

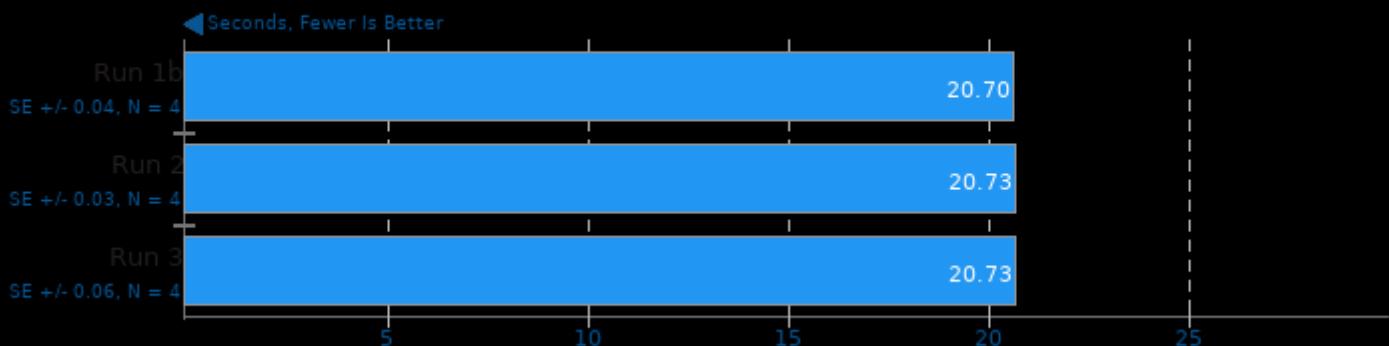
WAV To WavPack



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

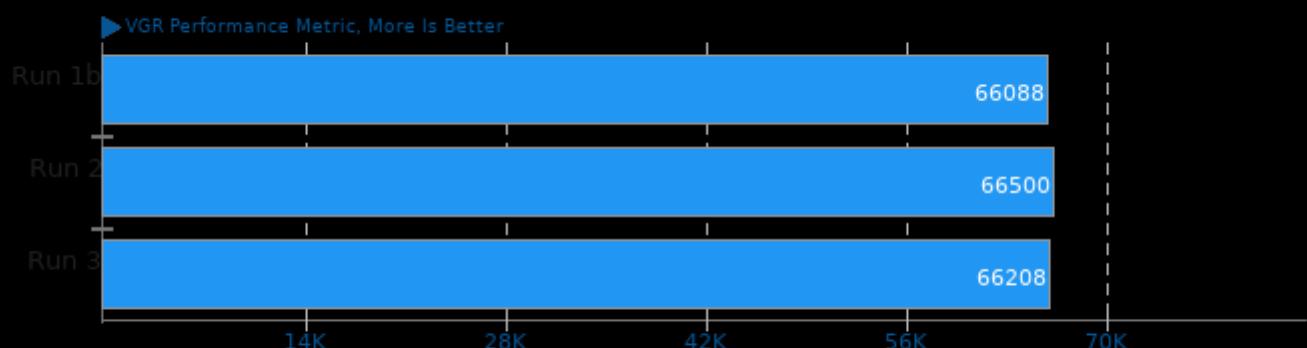
Unpacking Firefox 84.0

Extracting: firefox-84.0.source.tar.xz



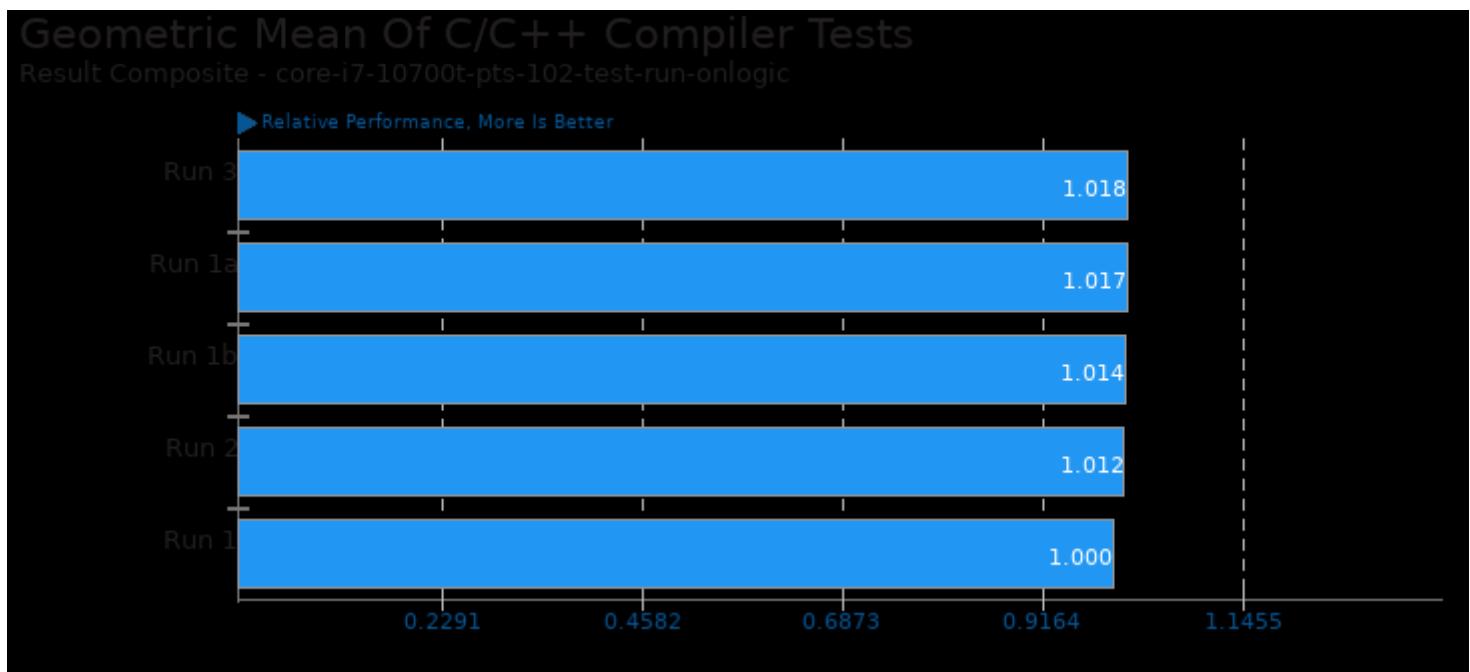
BRL-CAD 7.30.8

VGR Performance Metric



1. (CXX) g++ options: -std=c++11 -pipe -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth=128 -m64 -ggdb3 -O3 -fipa-pta -fstrength-reduce

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



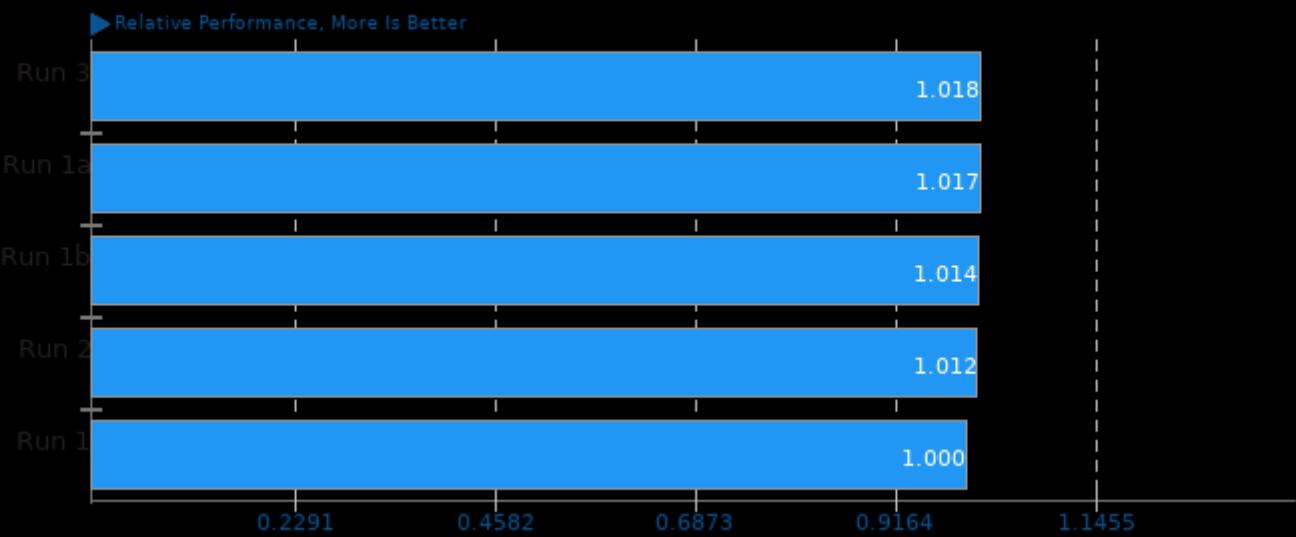
Geometric mean based upon tests: pts/mafft, pts/graphics-magick, pts/stockfish, pts/hmmer, pts/sqlite-speedtest, pts/dav1d, pts/clomp, pts/compress-zstd, pts/lammps, pts/gromacs, pts/build-ffmpeg, pts/leveldb and pts/basis



Geometric mean based upon tests: pts/sqlite-speedtest, pts/redis and pts/leveldb

Geometric Mean Of Common Kernel Benchmarks Tests

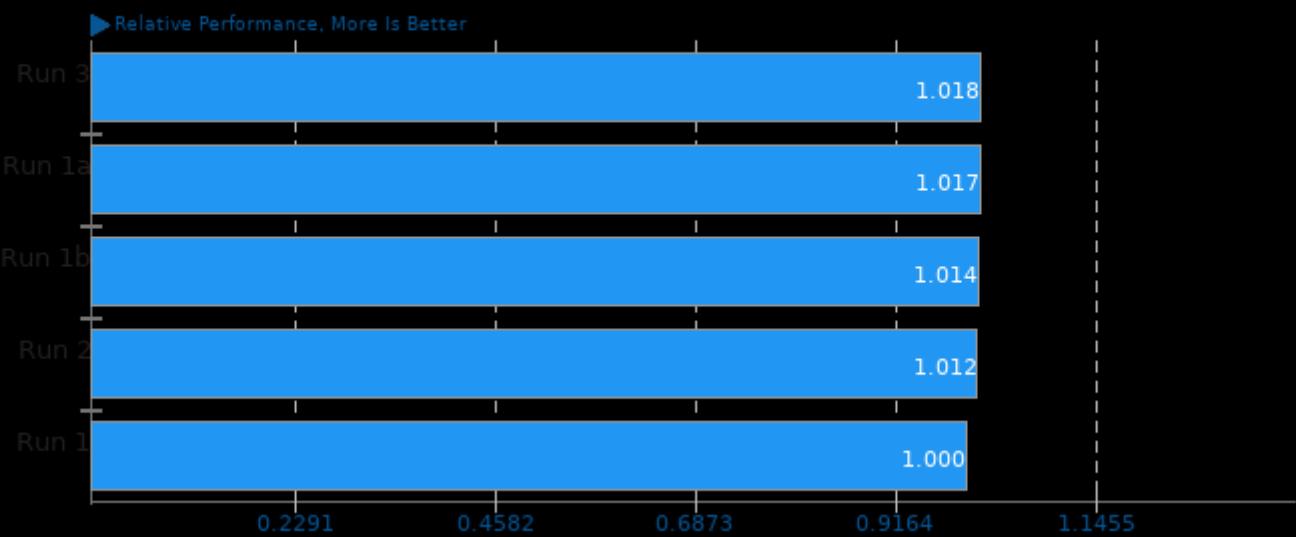
Result Composite - core-i7-10700t-pts-102-test-run-onlogic



Geometric mean based upon tests: pts/sqlite-speedtest and pts/leveldb

Geometric Mean Of Server Tests

Result Composite - core-i7-10700t-pts-102-test-run-onlogic



Geometric mean based upon tests: pts/redis, pts/phpbench, pts/simjson, pts/node-web-tooling, pts/sqlite-speedtest and pts/leveldb

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 09:02.