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2 x AMD EPYC 7601 32-Core testing with a Dell 02MJ3T (1.2.5 BIOS) and Matrox G200eW3 on Ubuntu 22.04 via the Phoronix Test Suite.

Automated Executive Summary

a had the most wins, coming in first place for 54% of the tests.

Based on the geometric mean of all complete results, the fastest (b) was 1.009x the speed of the slowest (a).

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

NCNN (Target: CPU - Model: resnet50) at 1.612x
NCNN (Target: CPU-v2-v2 - Model: mobilenet-v2) at 1.547x
NCNN (Target: CPU - Model: FastestDet) at 1.488x
NCNN (Target: CPU - Model: shufflenet-v2) at 1.463x
NCNN (Target: CPU - Model: regnety_400m) at 1.378x
NCNN (Target: CPU - Model: blazeface) at 1.367x
Stress-NG (Test: CPU Cache) at 1.304x
NCNN (Target: CPU-v3-v3 - Model: mobilenet-v3) at 1.295x
NCNN (Target: CPU - Model: resnet18) at 1.285x
GraphicsMagick (Operation: Resizing) at 1.237x.

Test Systems:

a

b

Processor: 2 x AMD EPYC 7601 32-Core (64 Cores / 128 Threads), Motherboard: Dell 02MJ3T (1.2.5 BIOS), Chipset: AMD 17h, Memory: 512GB, Disk: 280GB INTEL SSDPED1D280GA + 12 x 500GB Samsung SSD 860 + 120GB INTEL SSDSCKJB120G7R, Graphics: Matrox G200eW3, Monitor: VE228, Network: 2 x Broadcom BCM57416 NetXtreme-E Dual-Media 10G RDMA + 2 x Broadcom NetXtreme BCM5720 PCIe

OS: Ubuntu 22.04, Kernel: 5.15.0-40-generic (x86_64), Desktop: GNOME Shell 42.2, Display Server: X Server 1.21.1.3, Vulkan: 1.2.204, Compiler: GCC 11.3.0, File-System: ext4, Screen Resolution: 1600x1200

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --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-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-xKiWfi/gcc-11-11.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-xKiWfi/gcc-11-11.3.0/debian/tmp-gcn/usr --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-build-config=bootstrap-lto-lean --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: NONE / errors=remount-ro,relatime,rw / Block Size: 4096
Processor Notes: CPU Microcode: 0x8001250
Python Notes: Python 3.10.6
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	a	b
TensorFlow - CPU - 512 - ResNet-50 (images/sec)	**11.24**	**11.32**
Normalized	99.29%	100%
TensorFlow - CPU - 256 - ResNet-50 (images/sec)	**10.92**	**10.86**
Normalized	100%	99.45%
TensorFlow - CPU - 512 - GoogLeNet (images/sec)	**30.61**	**30.42**
Normalized	100%	99.38%
AI Benchmark Alpha - Device AI Score (Score)	**2009**	**1992**
Normalized	100%	99.15%
AI Benchmark Alpha - D.T.S (Score)	**764**	**760**
Normalized	100%	99.48%
AI Benchmark Alpha - D.I.S (Score)	**1245**	**1232**
Normalized	100%	98.96%
BRL-CAD - V.P.M (VGR Performance Metric)	**413004**	**406201**
Normalized	100%	98.35%
TensorFlow - CPU - 256 - GoogLeNet (images/sec)	**30.11**	**29.87**
Normalized	100%	99.2%
TensorFlow - CPU - 512 - AlexNet (images/sec)	**69.82**	**69.69**
Normalized	100%	99.81%
OpenFOAM - d.M.M.S - Execution Time (sec)	**541.95263**	**542.44501**
Normalized	100%	99.91%
OpenFOAM - d.M.M.S - Mesh Time (sec)	**167.0036**	**167.06876**
Normalized	100%	99.96%

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TensorFlow - CPU - 64 - ResNet-50 (images/sec)	10.11	10.17
Normalized	99.41%	100%
SMHasher - SHA3-256 (cycles/hash)	2294	2294
Normalized	100%	100%
SMHasher - SHA3-256 (MiB/sec)	171.09	171.13
Normalized	99.98%	100%
NCNN - CPU - FastestDet (ms)	76.99	51.75
Normalized	67.22%	100%
NCNN - CPU - vision_transformer (ms)	319.23	298.72
Normalized	93.58%	100%
NCNN - CPU - regnety_400m (ms)	286.78	208.14
Normalized	72.58%	100%
NCNN - CPU - squeezenet_ssd (ms)	100.38	94.37
Normalized	94.01%	100%
NCNN - CPU - yolov4-tiny (ms)	75.13	78.03
Normalized	100%	96.28%
NCNN - CPU - resnet50 (ms)	178.31	110.59
Normalized	62.02%	100%
NCNN - CPU - alexnet (ms)	65.6	53.71
Normalized	81.88%	100%
NCNN - CPU - resnet18 (ms)	81.24	63.2
Normalized	77.79%	100%
NCNN - CPU - vgg16 (ms)	139.33	123.73
Normalized	88.8%	100%
NCNN - CPU - googlenet (ms)	111.2	100.95
Normalized	90.78%	100%
NCNN - CPU - blazeface (ms)	42.63	31.18
Normalized	73.14%	100%
NCNN - CPU - efficientnet-b0 (ms)	55.09	56.92
Normalized	100%	96.78%
NCNN - CPU - mnasnet (ms)	51.66	41.96
Normalized	81.22%	100%
NCNN - CPU - shufflenet-v2 (ms)	64	43.74
Normalized	68.34%	100%
NCNN - CPU-v3-v3 - mobilenet-v3 (ms)	45.3	58.67
Normalized	100%	77.21%
NCNN - CPU-v2-v2 - mobilenet-v2 (ms)	74.59	48.21
Normalized	64.63%	100%
NCNN - CPU - mobilenet (ms)	70.65	82.64
Normalized	100%	85.49%
JPEG XL libjxl - PNG - 100 (MP/s)	0.4	0.4
JPEG XL libjxl - JPEG - 100 (MP/s)	0.4	0.4
WebP2 Image Encode - Q.1.L.C (MP/s)	0.04	0.04
Mobile Neural Network - inception-v3 (ms)	56.231	56.096
Normalized	99.76%	100%
Mobile Neural Network - mobilenet-v1-1.0 (ms)	7.677	7.386
Normalized	96.21%	100%
Mobile Neural Network - MobileNetV2_224 (ms)	9.862	9.957
Normalized	100%	99.05%
Mobile Neural Network - SqueezeNetV1.0 (ms)	15.675	15.008
Normalized	95.74%	100%
Mobile Neural Network - resnet-v2-50 (ms)	50.815	47.115
Normalized	92.72%	100%

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Mobile Neural Network - squeezenetv1.1 (ms)	**10.633**	**10.152**
Normalized	95.48%	100%
Mobile Neural Network - mobilenetV3 (ms)	**5.475**	**5.35**
Normalized	97.72%	100%
Mobile Neural Network - nasnet (ms)	**42.874**	**40.336**
Normalized	94.08%	100%
Blender - Barbershop - CPU-Only (sec)	**409.74**	**408.93**
Normalized	99.8%	100%
TensorFlow - CPU - 256 - AlexNet (images/sec)	**69.6**	**69.33**
Normalized	100%	99.61%
FFmpeg - libx264 - Upload (FPS)	**8.03**	**8.01**
Normalized	100%	99.75%
FFmpeg - libx264 - Upload (sec)	**314.58**	**315.290203876**
Normalized	100%	99.77%
Timed CPython Compilation - R.B.P.L.O (sec)	**399.66**	**400.368**
Normalized	100%	99.82%
FFmpeg - libx265 - Video On Demand (FPS)	**21.21**	**21.12**
Normalized	100%	99.58%
FFmpeg - libx265 - Video On Demand (sec)	**357.150956529**	**358.61**
Normalized	100%	99.59%
FFmpeg - libx265 - Platform (FPS)	**21.24**	**21.27**
Normalized	99.86%	100%
FFmpeg - libx265 - Platform (sec)	**356.59243127**	**356.16**
Normalized	99.88%	100%
TensorFlow - CPU - 32 - ResNet-50 (images/sec)	**9.6**	**9.69**
Normalized	99.07%	100%
LAMMPS Molecular Dynamics Simulator - 20k Atoms (ns/day)	**24.029**	**23.033**
Normalized	100%	95.86%
FFmpeg - libx265 - Upload (FPS)	**10.45**	**10.50**
Normalized	99.52%	100%
FFmpeg - libx265 - Upload (sec)	**241.646159513**	**240.519283432**
Normalized	99.53%	100%
FFmpeg - libx264 - Video On Demand (FPS)	**30.20**	**30.25**
Normalized	99.83%	100%
FFmpeg - libx264 - Video On Demand (sec)	**250.83**	**250.37**
Normalized	99.82%	100%
FFmpeg - libx264 - Platform (FPS)	**30.42**	**30.18**
Normalized	100%	99.21%
FFmpeg - libx264 - Platform (sec)	**249.00936878**	**250.99**
Normalized	100%	99.21%
TensorFlow - CPU - 64 - GoogLeNet (images/sec)	**30.13**	**30.12**
Normalized	100%	99.97%
TensorFlow - CPU - 16 - ResNet-50 (images/sec)	**8.13**	**8.12**
Normalized	100%	99.88%
OpenRadioss - I.a.F.S.I.D.C (sec)	**210.39**	**207.85**
Normalized	98.79%	100%
Timed Node.js Compilation - Time To Compile (sec)	**217.334**	**215.92**
Normalized	99.35%	100%
JPEG XL libjxl - JPEG - 80 (MP/s)	**6.1**	**6.06**
Normalized	100%	99.34%
OpenRadioss - B.S.o.W (sec)	**185.26**	**186.71**
Normalized	100%	99.22%

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JPEG XL libjxl - PNG - 80 (MP/s)	6.37	6.38
Normalized	99.84%	100%
OSPRay Studio - 3 - 4K - 32 - Path Tracer (ms)	173492	173590
Normalized	100%	99.94%
OSPRay Studio - 2 - 1080p - 16 - Path Tracer (ms)	17838	17792
Normalized	99.74%	100%
OSPRay Studio - 1 - 1080p - 16 - Path Tracer (ms)	17188	17139
Normalized	99.71%	100%
miniBUDE - OpenMP - BM2 (Billion Interactions/s)	30.127	29.692
Normalized	100%	98.56%
miniBUDE - OpenMP - BM2 (GFInst/s)	753.17	742.296
Normalized	100%	98.56%
OSPRay Studio - 2 - 4K - 32 - Path Tracer (ms)	150980	151192
Normalized	100%	99.86%
JPEG XL libjxl - JPEG - 90 (MP/s)	5.91	5.94
Normalized	99.49%	100%
nekRS - TurboPipe Periodic (FLOP/s)	184723000000	184827000000
Normalized	99.94%	100%
OSPRay Studio - 1 - 4K - 32 - Path Tracer (ms)	145358	145660
Normalized	100%	99.79%
JPEG XL libjxl - PNG - 90 (MP/s)	6.27	6.29
Normalized	99.68%	100%
OSPRay Studio - 3 - 1080p - 32 - Path Tracer (ms)	41292	41490
Normalized	100%	99.52%
OSPRay Studio - 3 - 4K - 1 - Path Tracer (ms)	5127	5130
Normalized	100%	99.94%
libavif avifenc - 0 (sec)	136.608	136.591
Normalized	99.99%	100%
OSPRay Studio - 2 - 4K - 1 - Path Tracer (ms)	4416	4403
Normalized	99.71%	100%
OSPRay Studio - 1 - 4K - 1 - Path Tracer (ms)	4233	4239
Normalized	100%	99.86%
C-Blosc - blosclz bitshuffle (MB/s)	5328	5319
Normalized	100%	99.82%
AOM AV1 - Speed 4 Two-Pass - Bosphorus 4K (FPS)	5.59	5.56
Normalized	100%	99.46%
TensorFlow - CPU - 32 - GoogLeNet (images/sec)	29.09	28.44
Normalized	100%	97.77%
OpenRadioss - R.O.R.S.I (sec)	118	117.84
Normalized	99.86%	100%
OSPRay Studio - 2 - 1080p - 32 - Path Tracer (ms)	35696	35397
Normalized	99.16%	100%
Blender - Pabellon Barcelona - CPU-Only (sec)	126.81	126.75
Normalized	99.95%	100%
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	1.314	1.321
Normalized	99.47%	100%
Timed Erlang/OTP Compilation - Time To Compile	124.066	124.216
Normalized	100%	99.88%
OSPRay Studio - 1 - 1080p - 32 - Path Tracer (ms)	34160	34140
Normalized	99.94%	100%
TensorFlow - CPU - 64 - AlexNet (images/sec)	59.55	59.76
Normalized	99.65%	100%
WebP2 Image Encode - Q.9.C.E.7 (MP/s)	0.20	0.20

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Node.js V8 Web Tooling Benchmark (runs/s)	**7.13**	**7.02**
Normalized	100%	98.46%
FFmpeg - libx265 - Live (FPS)	**58.22**	**57.01**
Normalized	100%	97.92%
FFmpeg - libx265 - Live (sec)	**86.74**	**88.58**
Normalized	100%	97.92%
OSPRay Studio - 3 - 1080p - 1 - Path Tracer (ms)	**1282**	**1277**
Normalized	99.61%	100%
OSPRay Studio - 2 - 1080p - 1 - Path Tracer (ms)	**1096**	**1100**
Normalized	100%	99.64%
OSPRay Studio - 1 - 1080p - 1 - Path Tracer (ms)	**1062**	**1060**
Normalized	99.81%	100%
OpenRadioss - Bumper Beam (sec)	**108.51**	**108.31**
Normalized	99.82%	100%
Cpuminer-Opt - Garlicoin (kH/s)	**13970**	**14530**
Normalized	96.15%	100%
spaCy - en_core_web_trf (tokens/sec)	**701**	**685**
Normalized	100%	97.72%
spaCy - en_core_web_lg (tokens/sec)	**6798**	**6795**
Normalized	100%	99.96%
Neural Magic DeepSparse - N.Q.A.B.b.u.S.1.P - A.M.S (ms/batch)	**362.7795**	**364.9851**
Normalized	100%	99.4%
Neural Magic DeepSparse - N.Q.A.B.b.u.S.1.P - A.M.S (items/sec)	**87.6373**	**87.3202**
Normalized	100%	99.64%
OSPRay Studio - 3 - 1080p - 16 - Path Tracer (ms)	**20597**	**20517**
Normalized	99.61%	100%
OSPRay Studio - 3 - 4K - 16 - Path Tracer (ms)	**91958**	**92675**
Normalized	100%	99.23%
OpenFOAM - d.S.M.S - Execution Time (sec)	**61.454018**	**62.974805**
Normalized	100%	97.59%
OpenFOAM - d.S.M.S - Mesh Time (sec)	**34.098937**	**34.188105**
Normalized	100%	99.74%
oneDNN - R.N.N.T - bf16bf16bf16 - CPU (ms)	**8046**	**8014**
Normalized	99.6%	100%
oneDNN - R.N.N.T - f32 - CPU (ms)	**7823**	**8504**
Normalized	100%	91.99%
oneDNN - R.N.N.T - u8s8f32 - CPU (ms)	**7894**	**8148**
Normalized	100%	96.88%
JPEG XL Decoding libjxl - 1 (MP/s)	**26.86**	**27.01**
Normalized	99.44%	100%
AOM AV1 - Speed 0 Two-Pass - Bosphorus 4K (FPS)	0.21	0.21
OSPRay Studio - 2 - 4K - 16 - Path Tracer (ms)	**80769**	**80340**
Normalized	99.47%	100%
Xmrig - Monero - 1M (H/s)	**12798**	**10915**
Normalized	100%	85.29%
nginx - 1000 (Reqs/sec)	**96266**	**95346**
Normalized	100%	99.05%
nginx - 500 (Reqs/sec)	**99536**	**98640**
Normalized	100%	99.1%
nginx - 200 (Reqs/sec)	**100112**	**101709**
Normalized	98.43%	100%

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oneDNN - R.N.N.I - f32 - CPU (ms)	5300	5168
Normalized	97.5%	100%
oneDNN - R.N.N.I - bf16bf16bf16 - CPU (ms)	5158	5208
Normalized	100%	99.04%
oneDNN - R.N.N.I - u8s8f32 - CPU (ms)	5167	5128
Normalized	99.24%	100%
OSPRay Studio - 1 - 4K - 16 - Path Tracer (ms)	78125	78264
Normalized	100%	99.82%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 4K (FPS)	8.95	8.71
Normalized	100%	97.32%
Blender - Classroom - CPU-Only (sec)	87.25	87.77
Normalized	100%	99.41%
C-Blosc - blosclz shuffle (MB/s)	8493	8535
Normalized	99.52%	100%
OpenVINO - P.D.F - CPU (ms)	8245	8120
Normalized	98.48%	100%
OpenVINO - P.D.F - CPU (FPS)	3.85	3.89
Normalized	98.97%	100%
OpenVINO - P.D.F - CPU (ms)	8087	8150
Normalized	100%	99.23%
OpenVINO - P.D.F - CPU (FPS)	3.9	3.89
Normalized	100%	99.74%
EnCodec - 24 kbps (sec)	78.457	81.167
Normalized	100%	96.66%
libavif avifenc - 2 (sec)	78.895	79.112
Normalized	100%	99.73%
TensorFlow - CPU - 16 - GoogLeNet (images/sec)	24.77	24.47
Normalized	100%	98.79%
TensorFlow - CPU - 32 - AlexNet (images/sec)	48.66	48.45
Normalized	100%	99.57%
EnCodec - 6 kbps (sec)	74.538	74.885
Normalized	100%	99.54%
Neural Magic DeepSparse - N.D.C.o.b.u.o.I - A.M.S (ms/batch)	1387	1399
Normalized	100%	99.15%
Neural Magic DeepSparse - N.D.C.o.b.u.o.I - A.M.S (items/sec)	22.6007	22.568
Normalized	100%	99.86%
OpenVINO - F.D.F.I - CPU (ms)	4182	4185
Normalized	100%	99.93%
OpenVINO - F.D.F.I - CPU (FPS)	7.61	7.61
Timed Wasmer Compilation - Time To Compile (sec)	73.78	73.485
Normalized	99.6%	100%
OpenVINO - F.D.F - CPU (ms)	5453	5492
Normalized	100%	99.28%
OpenVINO - F.D.F - CPU (FPS)	5.85	5.82
Normalized	100%	99.49%
EnCodec - 1.5 kbps (sec)	67.588	75.036
Normalized	100%	90.07%
Neural Magic DeepSparse - N.T.C.B.b.u.c - A.M.S (ms/batch)	1387	1391
Normalized	100%	99.76%

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Neural Magic DeepSparse - N.T.C.B.b.u.c - A.M.S (items/sec)	22.6456	22.674
Normalized	99.87%	100%
AOM AV1 - Speed 4 Two-Pass - Bosphorus 1080p	11.06	10.84
Normalized	100%	98.01%
srsRAN - OFDM_Test (Samples / Second)	65700000	66100000
Normalized	99.39%	100%
Neural Magic DeepSparse - N.T.C.B.b.u.S - A.M.S (ms/batch)	331.234	330.5267
Normalized	99.79%	100%
Neural Magic DeepSparse - N.T.C.B.b.u.S - A.M.S (items/sec)	96.0986	96.5473
Normalized	99.54%	100%
FFmpeg - libx264 - Live (FPS)	129.99	130.30
Normalized	99.76%	100%
FFmpeg - libx264 - Live (sec)	38.85	38.76
Normalized	99.77%	100%
Cpuminer-Opt - Myriad-Groestl (kH/s)	154070	152420
Normalized	100%	98.93%
EnCodec - 3 kbps (sec)	66.471	68.291
Normalized	100%	97.33%
WebP2 Image Encode - Q.7.C.E.7 (MP/s)	0.38	0.37
Normalized	100%	97.37%
srsRAN - 4.P.1.P.M.2.Q (UE Mb/s)	92	91.5
Normalized	100%	99.46%
srsRAN - 4.P.1.P.M.2.Q (eNb Mb/s)	274.2	273
Normalized	100%	99.56%
OpenVINO - P.V.B.D.F - CPU (ms)	62.29	62.84
Normalized	100%	99.12%
OpenVINO - P.V.B.D.F - CPU (FPS)	513.24	508.7
Normalized	100%	99.12%
OpenVINO - M.T.E.T.D.F - CPU (ms)	533.65	520.79
Normalized	97.59%	100%
OpenVINO - M.T.E.T.D.F - CPU (FPS)	59.76	61.27
Normalized	97.54%	100%
Timed PHP Compilation - Time To Compile (sec)	62.123	62.178
Normalized	100%	99.91%
OpenVINO - V.D.F.I - CPU (ms)	52.03	52.14
Normalized	100%	99.79%
OpenVINO - V.D.F.I - CPU (FPS)	614.56	613.31
Normalized	100%	99.8%
OpenVINO - V.D.F - CPU (ms)	90.64	90.91
Normalized	100%	99.7%
OpenVINO - V.D.F - CPU (FPS)	352.62	351.6
Normalized	100%	99.71%
OpenVINO - W.P.D.F.I - CPU (ms)	85.05	85.09
Normalized	100%	99.95%
OpenVINO - W.P.D.F.I - CPU (FPS)	751.84	751.3
Normalized	100%	99.93%
GraphicsMagick - Resizing (Iterations/min)	167	135
Normalized	100%	80.84%
OpenVINO - A.G.R.R.0.F.I - CPU (ms)	3.26	3.24
Normalized	99.39%	100%

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OpenVINO - A.G.R.R.0.F.I - CPU (FPS)	19470	19580
Normalized	99.44%	100%
OpenVINO - A.G.R.R.0.F - CPU (ms)	3.94	3.92
Normalized	99.49%	100%
OpenVINO - A.G.R.R.0.F - CPU (FPS)	16069	16149
Normalized	99.5%	100%
OpenVINO - W.P.D.F - CPU (ms)	51.03	51.04
Normalized	100%	99.98%
OpenVINO - W.P.D.F - CPU (FPS)	626.61	626.42
Normalized	100%	99.97%
Facebook RocksDB - Update Rand (Op/s)	199394	198198
Normalized	100%	99.4%
Facebook RocksDB - R.R.W.R (Op/s)	1551427	1558868
Normalized	99.52%	100%
Facebook RocksDB - Read While Writing (Op/s)	5807440	6220606
Normalized	93.36%	100%
GraphicsMagick - Sharpen (Iterations/min)	561	555
Normalized	100%	98.93%
GraphicsMagick - Rotate (Iterations/min)	443	448
Normalized	98.88%	100%
Facebook RocksDB - Rand Read (Op/s)	198794977	196826975
Normalized	100%	99.01%
GraphicsMagick - Noise-Gaussian (Iterations/min)	692	619
Normalized	100%	89.45%
GraphicsMagick - Enhanced (Iterations/min)	743	740
Normalized	100%	99.6%
GraphicsMagick - HWB Color Space (Iterations/min)	1107	957
Normalized	100%	86.45%
GraphicsMagick - Swirl (Iterations/min)	1243	1247
Normalized	99.68%	100%
WebP Image Encode - Q.1.L.H.C (MP/s)	0.41	0.42
Normalized	97.62%	100%
Xmrig - Wownero - 1M (H/s)	19244	19140
Normalized	100%	99.46%
ClickHouse - 1.R.W.A.D.T.R (Queries/min, Geo Mean)	272.09	256.64
Normalized	100%	94.32%
ClickHouse - 1.R.W.A.D.S.R (Queries/min, Geo Mean)	260.83	271.13
Normalized	96.2%	100%
ClickHouse - 1.R.W.A.D.F.R.C.C (Queries/min, Geo Mean)	241.18	253.55
Normalized	95.12%	100%
Neural Magic DeepSparse - N.Q.A.B.b.u.S.1.P - S.S.S (ms/batch)	56.2277	52.0728
Normalized	92.61%	100%
Neural Magic DeepSparse - N.Q.A.B.b.u.S.1.P - S.S.S (items/sec)	17.7786	19.1958
Normalized	92.62%	100%
Primesieve - 1e13 (sec)	56.028	56.246
Normalized	100%	99.61%
OpenRadioss - C.P.D.T (sec)	41.65	41.58
Normalized	99.83%	100%
srsRAN - 4.P.1.P.M.6.Q (UE Mb/s)	86.2	85.9
Normalized	100%	99.65%

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srsRAN - 4.P.1.P.M.6.Q (eNb Mb/s)	252.8	252.3
Normalized	100%	99.8%
Neural Magic DeepSparse - N.T.C.B.b.u.c - S.S.S (ms/batch)	123.0974	121.5902
Normalized	98.78%	100%
Neural Magic DeepSparse - N.T.C.B.b.u.c - S.S.S (items/sec)	8.1225	8.2228
Normalized	98.78%	100%
Neural Magic DeepSparse - N.D.C.o.b.u.o.I - S.S.S (ms/batch)	119.5632	120.5776
Normalized	100%	99.16%
Neural Magic DeepSparse - N.D.C.o.b.u.o.I - S.S.S (items/sec)	8.3625	8.2919
Normalized	100%	99.16%
Neural Magic DeepSparse - N.T.C.B.b.u.S - S.S.S (ms/batch)	37.9743	38.3752
Normalized	100%	98.96%
Neural Magic DeepSparse - N.T.C.B.b.u.S - S.S.S (items/sec)	26.3211	26.046
Normalized	100%	98.95%
Blender - Fishy Cat - CPU-Only (sec)	51.46	51.66
Normalized	100%	99.61%
Neural Magic DeepSparse - N.T.C.D.m - A.M.S (ms/batch)	166.1119	165.7009
Normalized	99.75%	100%
Neural Magic DeepSparse - N.T.C.D.m - A.M.S (items/sec)	192.2873	192.6373
Normalized	99.82%	100%
Neural Magic DeepSparse - C.D.Y.C - A.M.S	261.4175	261.4233
Normalized	100%	100%
Neural Magic DeepSparse - C.D.Y.C - A.M.S	121.842	121.8565
Normalized	99.99%	100%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	3.531	3.561
Normalized	99.16%	100%
Neural Magic DeepSparse - C.C.R.5.I - A.M.S	128.0038	127.2104
Normalized	99.38%	100%
Neural Magic DeepSparse - C.C.R.5.I - A.M.S	249.2856	250.8978
Normalized	99.36%	100%
TensorFlow - CPU - 16 - AlexNet (images/sec)	42.69	42.91
Normalized	99.49%	100%
Neural Magic DeepSparse - N.T.C.D.m - S.S.S	19.4996	19.3504
Normalized	99.23%	100%
Neural Magic DeepSparse - N.T.C.D.m - S.S.S (items/sec)	51.2365	51.6311
Normalized	99.24%	100%
Neural Magic DeepSparse - C.D.Y.C - S.S.S (ms/batch)	25.014	24.9281
Normalized	99.66%	100%
Neural Magic DeepSparse - C.D.Y.C - S.S.S (items/sec)	39.942	40.071
Normalized	99.68%	100%
JPEG XL Decoding libjxl - All (MP/s)	151.09	151.66
Normalized	99.62%	100%
AOM AV1 - Speed 6 Realtime - Bosphorus 4K (FPS)	16.41	15.89

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Normalized	100%	96.83%
Neural Magic DeepSparse - C.C.R.5.I - S.S.S	13.5743	13.5155
Normalized	99.57%	100%
Neural Magic DeepSparse - C.C.R.5.I - S.S.S	73.5683	73.866
Normalized	99.6%	100%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 1080p	24.96	24.36
Normalized	100%	97.6%
Blender - BMW27 - CPU-Only (sec)	35.5	35.62
Normalized	100%	99.66%
AOM AV1 - Speed 8 Realtime - Bosphorus 4K (FPS)	18.51	17.14
Normalized	100%	92.6%
srsRAN - 5.P.T.5.P.S.6.Q (UE Mb/s)	38	38.1
Normalized	99.74%	100%
srsRAN - 5.P.T.5.P.S.6.Q (eNb Mb/s)	69.7	69.7
AOM AV1 - Speed 0 Two-Pass - Bosphorus 1080p	0.6	0.59
Normalized	100%	98.33%
Stress-NG - Atomic (Bogo Ops/s)	156803	172559
Normalized	90.87%	100%
Natron - Spaceship (FPS)	3.5	3.6
Normalized	97.22%	100%
Stress-NG - Context Switching (Bogo Ops/s)	14423511	15090387
Normalized	95.58%	100%
Stress-NG - Socket Activity (Bogo Ops/s)	25317	25937
Normalized	97.61%	100%
Stress-NG - SENDFILE (Bogo Ops/s)	678381	678714
Normalized	99.95%	100%
Stress-NG - Futex (Bogo Ops/s)	802471	796566
Normalized	100%	99.26%
Aircrack-ng (k/s)	76103	74379
Normalized	100%	97.73%
Cpuminer-Opt - Skeincoin (kH/s)	222070	222040
Normalized	100%	99.99%
Stress-NG - IO_uring (Bogo Ops/s)	45732	45864
Normalized	99.71%	100%
Stress-NG - NUMA (Bogo Ops/s)	140.8	140.65
Normalized	100%	99.89%
srsRAN - 4.P.1.P.S.2.Q (UE Mb/s)	98.9	99
Normalized	99.9%	100%
srsRAN - 4.P.1.P.S.2.Q (eNb Mb/s)	279.8	279.4
Normalized	100%	99.86%
Stress-NG - Memory Copying (Bogo Ops/s)	2328	2486
Normalized	93.66%	100%
Stress-NG - S.V.M.P (Bogo Ops/s)	7616184	7408445
Normalized	100%	97.27%
Stress-NG - Forking (Bogo Ops/s)	19768	19541
Normalized	100%	98.85%
Stress-NG - CPU Cache (Bogo Ops/s)	199.02	259.54
Normalized	76.68%	100%
Stress-NG - Malloc (Bogo Ops/s)	146984386	148029624
Normalized	99.29%	100%
Stress-NG - MEMFD (Bogo Ops/s)	1751	1744
Normalized	100%	99.57%
Cpuminer-Opt - x25x (kH/s)	1459	1453

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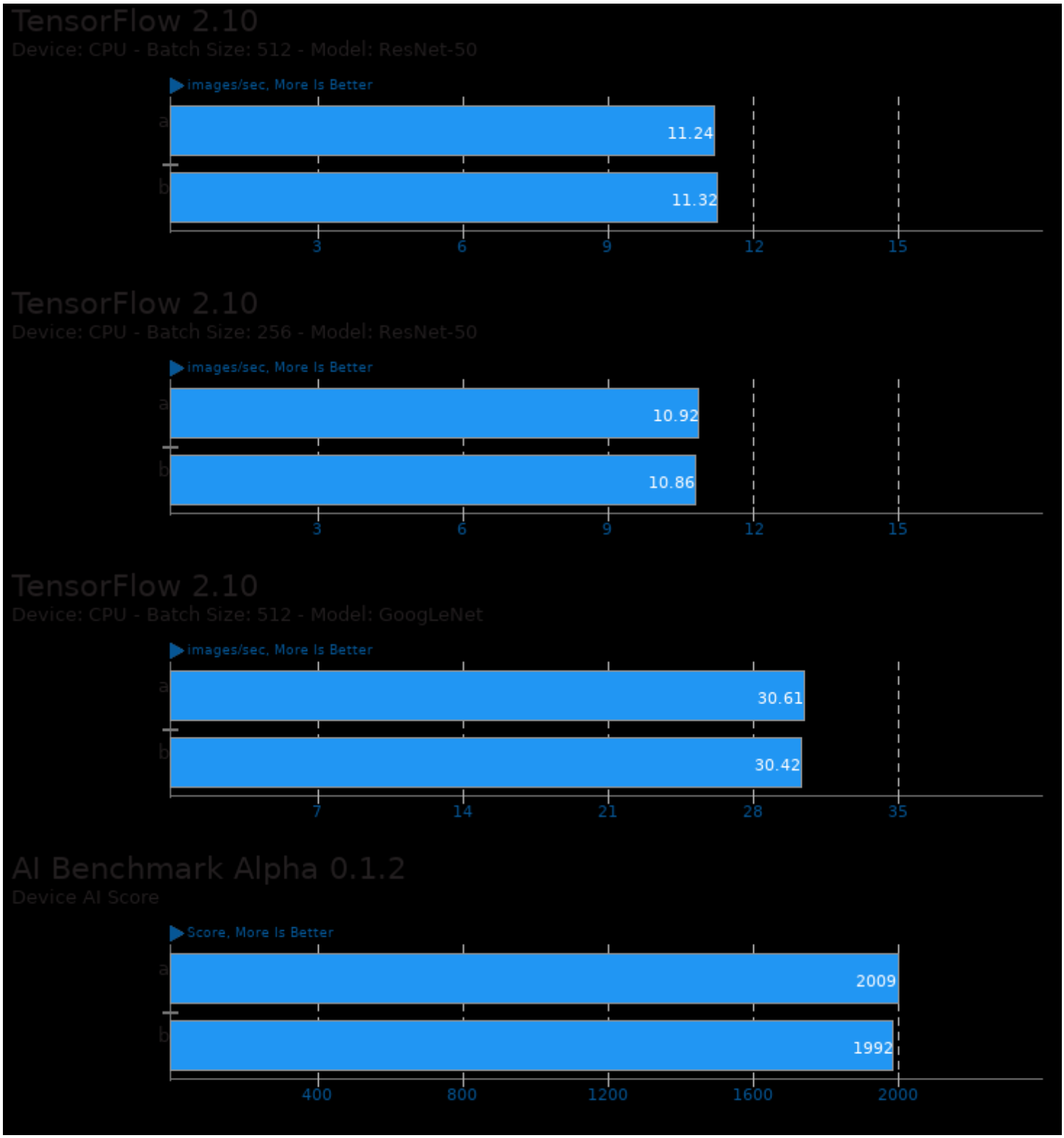
Normalized	100%	99.6%
Stress-NG - Crypto (Bogo Ops/s)	67640	67623
Normalized	100%	99.97%
Stress-NG - G.Q.D.S (Bogo Ops/s)	673.06	667.4
Normalized	100%	99.16%
Stress-NG - CPU Stress (Bogo Ops/s)	106647	107075
Normalized	99.6%	100%
Stress-NG - G.C.S.F (Bogo Ops/s)	5250106	5386267
Normalized	97.47%	100%
Stress-NG - MMAP (Bogo Ops/s)	2418	2343
Normalized	100%	96.87%
Stress-NG - Vector Math (Bogo Ops/s)	266411	266536
Normalized	99.95%	100%
Stress-NG - Matrix Math (Bogo Ops/s)	215007	215111
Normalized	99.95%	100%
Stress-NG - Semaphores (Bogo Ops/s)	7247267	7261328
Normalized	99.81%	100%
Stress-NG - Mutex (Bogo Ops/s)	17481256	17702492
Normalized	98.75%	100%
Cpuminer-Opt - Ringcoin (kH/s)	18480	18440
Normalized	100%	99.78%
Cpuminer-Opt - Q.S.2.P (kH/s)	374460	374430
Normalized	100%	99.99%
AOM AV1 - Speed 9 Realtime - Bosphorus 4K (FPS)	21.01	21.39
Normalized	98.22%	100%
Cpuminer-Opt - scrypt (kH/s)	496.52	499.97
Normalized	99.31%	100%
Cpuminer-Opt - Deepcoin (kH/s)	27510	27490
Normalized	100%	99.93%
Cpuminer-Opt - Blake-2 S (kH/s)	1098730	1098280
Normalized	100%	99.96%
Cpuminer-Opt - T.S.2.O (kH/s)	718010	718140
Normalized	99.98%	100%
Cpuminer-Opt - Magi (kH/s)	1711	1702
Normalized	100%	99.47%
Cpuminer-Opt - LBC, LBRY Credits (kH/s)	56960	56960
miniBUDE - OpenMP - BM1 (Billion Interactions/s)	27.872	27.515
Normalized	100%	98.72%
miniBUDE - OpenMP - BM1 (GFInst/s)	696.801	687.884
Normalized	100%	98.72%
AOM AV1 - Speed 10 Realtime - Bosphorus 4K (FPS)	21.95	21.83
Normalized	100%	99.45%
FLAC Audio Encoding - WAV To FLAC (sec)	28.868	28.744
Normalized	99.57%	100%
ASTC Encoder - Exhaustive (MT/s)	2.2087	2.2093
Normalized	99.97%	100%
Y-Cruncher - 1B (sec)	21.577	21.561
Normalized	99.93%	100%
srsRAN - 4.P.1.P.S.6.Q (UE Mb/s)	93.7	93.6
Normalized	100%	99.89%
srsRAN - 4.P.1.P.S.6.Q (eNb Mb/s)	257.5	256.9
Normalized	100%	99.77%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	27.818	28.06

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Normalized	99.14%	100%
WebP Image Encode - Q.1.L (MP/s)	1.06	1.05
Normalized	100%	99.06%
Timed CPython Compilation - Default (sec)	22.619	22.707
Normalized	100%	99.61%
oneDNN - D.B.s - f32 - CPU (ms)	19.1966	19.1791
Normalized	99.91%	100%
oneDNN - D.B.s - u8s8f32 - CPU (ms)	4.14024	4.63109
Normalized	100%	89.4%
ASTC Encoder - Thorough (MT/s)	19.4177	19.4423
Normalized	99.87%	100%
AOM AV1 - Speed 6 Realtime - Bosphorus 1080p	33.12	33.44
Normalized	99.04%	100%
SMHasher - FarmHash128 (cycles/hash)	51.419	51.419
SMHasher - FarmHash128 (MiB/sec)	19050	19029
Normalized	100%	99.89%
SMHasher - M.x.A.N (cycles/hash)	47.356	47.348
Normalized	99.98%	100%
SMHasher - M.x.A.N (MiB/sec)	41424	41393
Normalized	100%	99.93%
AOM AV1 - Speed 8 Realtime - Bosphorus 1080p	41.79	38.47
Normalized	100%	92.06%
oneDNN - IP Shapes 1D - f32 - CPU (ms)	5.12686	5.03993
Normalized	98.3%	100%
SVT-AV1 - Preset 10 - Bosphorus 4K (FPS)	46.683	52.96
Normalized	88.15%	100%
oneDNN - IP Shapes 1D - u8s8f32 - CPU (ms)	4.23625	3.81237
Normalized	89.99%	100%
SMHasher - Spooky32 (cycles/hash)	40.875	40.792
Normalized	99.8%	100%
SMHasher - Spooky32 (MiB/sec)	17912	17952
Normalized	99.78%	100%
AOM AV1 - Speed 10 Realtime - Bosphorus 1080p	45.43	42.01
Normalized	100%	92.47%
ASTC Encoder - Fast (MT/s)	382.0137	376.393
Normalized	100%	98.53%
Y-Cruncher - 500M (sec)	11.184	10.987
Normalized	98.24%	100%
AOM AV1 - Speed 9 Realtime - Bosphorus 1080p	48.34	42.57
Normalized	100%	88.06%
SMHasher - F.x.A (cycles/hash)	34.619	34.546
Normalized	99.79%	100%
SMHasher - F.x.A (MiB/sec)	32899	32884
Normalized	100%	99.95%
oneDNN - M.M.B.S.T - f32 - CPU (ms)	9.48918	7.74858
Normalized	81.66%	100%
oneDNN - M.M.B.S.T - u8s8f32 - CPU (ms)	29.7727	28.8968
Normalized	97.06%	100%
SMHasher - fasthash32 (cycles/hash)	29.558	29.586
Normalized	100%	99.91%
SMHasher - fasthash32 (MiB/sec)	8316	8317
Normalized	99.99%	100%
SVT-AV1 - Preset 12 - Bosphorus 4K (FPS)	67.124	69.476

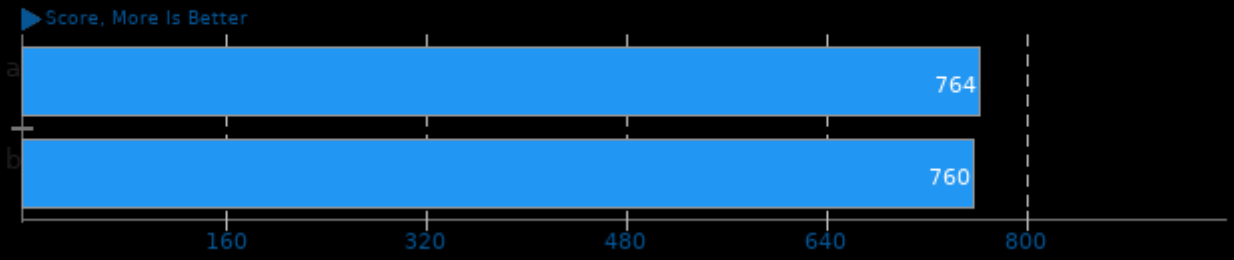
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Normalized	96.61%	100%
SMHasher - t1ha2_atonce (cycles/hash)	27.774	27.774
SMHasher - t1ha2_atonce (MiB/sec)	18815	18809
Normalized	100%	99.97%
Unpacking The Linux Kernel - linux-5.19.tar.xz (sec)	10.559	10.649
Normalized	100%	99.15%
SMHasher - t.x (cycles/hash)	27.314	27.314
SMHasher - t.x (MiB/sec)	77196	76444
Normalized	100%	99.02%
WebP Image Encode - Q.1.H.C (MP/s)	2.43	2.43
libavif avifenc - 6, Lossless (sec)	9.994	10.085
Normalized	100%	99.1%
oneDNN - IP Shapes 3D - f32 - CPU (ms)	20.1433	20.2831
Normalized	100%	99.31%
oneDNN - IP Shapes 3D - u8s8f32 - CPU (ms)	4.52585	4.58464
Normalized	100%	98.72%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	76.278	76.731
Normalized	99.41%	100%
SMHasher - wyhash (cycles/hash)	20.507	20.508
Normalized	100%	100%
SMHasher - wyhash (MiB/sec)	30087	30063
Normalized	100%	99.92%
ASTC Encoder - Medium (MT/s)	151.8067	152.2417
Normalized	99.71%	100%
libavif avifenc - 10, Lossless (sec)	7.613	7.653
Normalized	100%	99.48%
oneDNN - C.B.S.A - f32 - CPU (ms)	21.0326	20.0581
Normalized	95.37%	100%
oneDNN - C.B.S.A - u8s8f32 - CPU (ms)	28.7725	28.7918
Normalized	100%	99.93%
libavif avifenc - 6 (sec)	5.268	5.268
SVT-AV1 - Preset 10 - Bosphorus 1080p (FPS)	161.41	159.55
Normalized	100%	98.85%
Primesieve - 1e12 (sec)	4.638	4.66
Normalized	100%	99.53%
WebP2 Image Encode - Default (MP/s)	5.77	6.38
Normalized	90.44%	100%
SVT-AV1 - Preset 12 - Bosphorus 1080p (FPS)	209.488	234.707
Normalized	89.26%	100%
WebP2 Image Encode - Q.1.C.E.5 (MP/s)	7.42	7.35
Normalized	100%	99.06%
WebP Image Encode - Quality 100 (MP/s)	7.73	7.71
Normalized	100%	99.74%
oneDNN - D.B.s - f32 - CPU (ms)	6.0371	5.6399
Normalized	93.42%	100%
oneDNN - D.B.s - u8s8f32 - CPU (ms)	2.51501	2.51294
Normalized	99.92%	100%
WebP Image Encode - Default (MP/s)	12.25	12.23
Normalized	100%	99.84%
LAMMPS Molecular Dynamics Simulator - Rhodopsin Protein (ns/day)	24.104	24.069
Normalized	100%	99.85%


TensorFlow 2.10
Device: CPU - Batch Size: 512 - Model: ResNet-50
images/sec, More Is Better
a
11.24
b
11.32
3
6
9
12
15
TensorFlow 2.10
Device: CPU - Batch Size: 256 - Model: ResNet-50
images/sec, More Is Better
a
10.92
b
10.86
3
6
9
12
15
TensorFlow 2.10
Device: CPU - Batch Size: 512 - Model: GoogLeNet
images/sec, More Is Better
a
30.61
b
30.42
7
14
21
28
35
AI Benchmark Alpha 0.1.2
Device AI Score
Score, More Is Better
a
2009
b
1992
400
800
1200
1600
2000

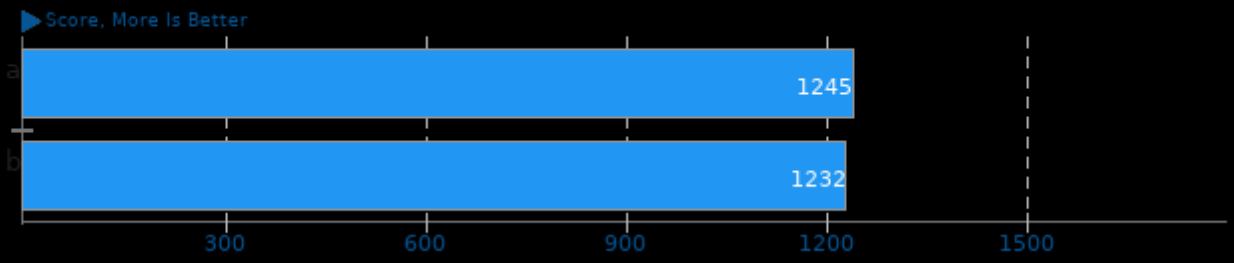
AI Benchmark Alpha 0.1.2

Device Training Score



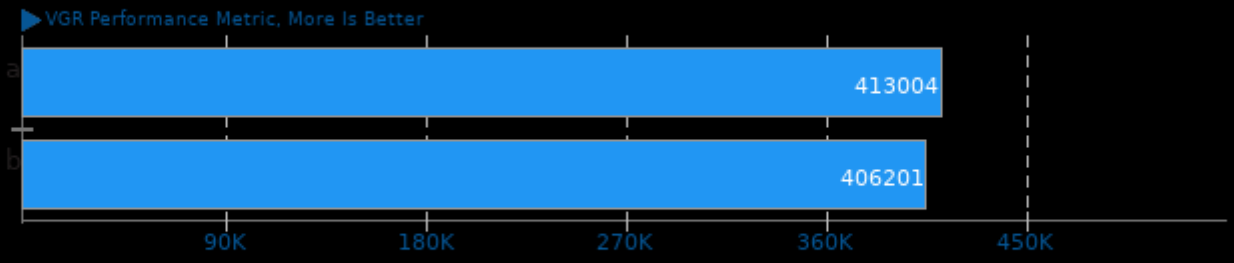
AI Benchmark Alpha 0.1.2

Device Inference Score



BRL-CAD 7.32.6

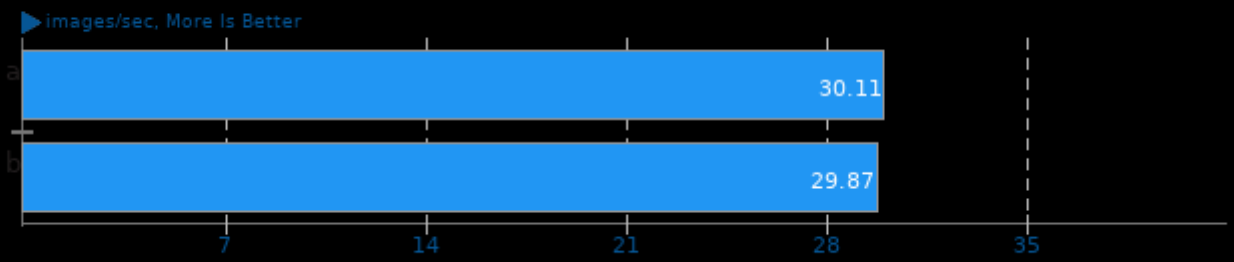
VGR Performance Metric



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

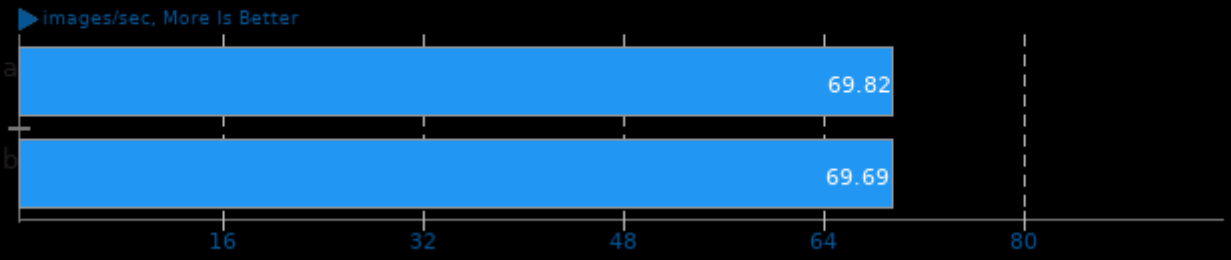
TensorFlow 2.10

Device: CPU - Batch Size: 256 - Model: GoogLeNet



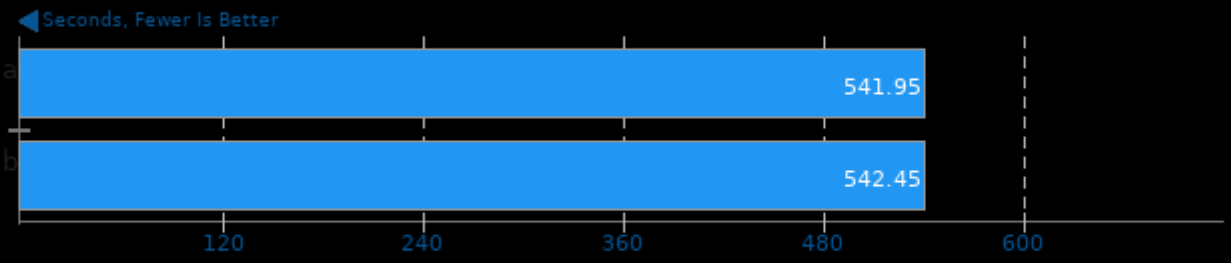
TensorFlow 2.10

Device: CPU - Batch Size: 512 - Model: AlexNet



OpenFOAM 10

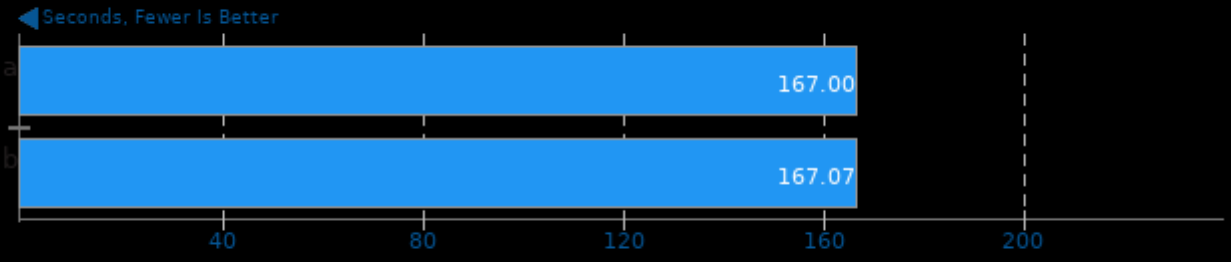
Input: drivaerFastback, Medium Mesh Size - Execution Time



1. (CXX) g++ options: -std=c++14 -m64 -O3 -ftemplate-depth-100 -fPIC -fuse-ld=bfd -Xlinker --add-needed --no-as-needed -lfiniteVolume -lmeshTools -l

OpenFOAM 10

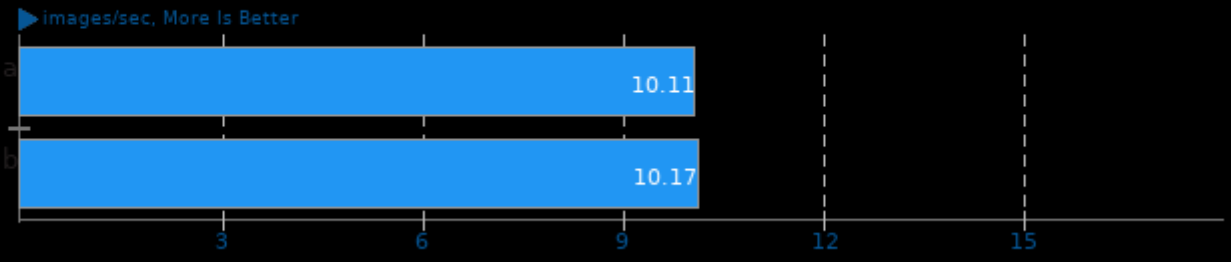
Input: drivaerFastback, Medium Mesh Size - Mesh Time



1. (CXX) g++ options: -std=c++14 -m64 -O3 -ftemplate-depth-100 -fPIC -fuse-ld=bfd -Xlinker --add-needed --no-as-needed -lfiniteVolume -lmeshTools -l

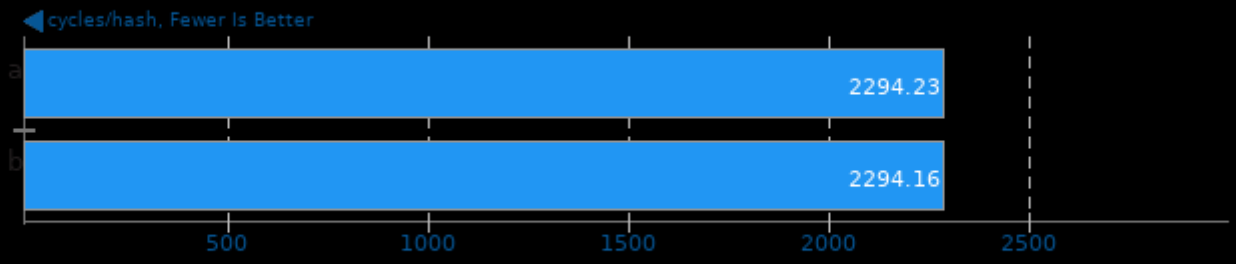
TensorFlow 2.10

Device: CPU - Batch Size: 64 - Model: ResNet-50



SMHasher 2022-08-22

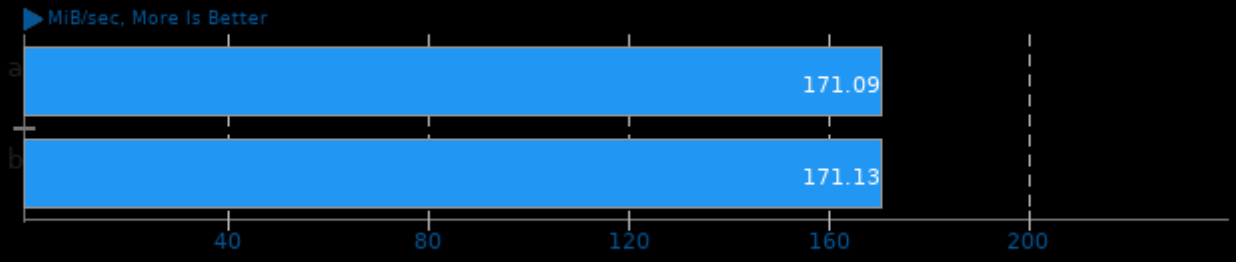
Hash: SHA3-256



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SMHasher 2022-08-22

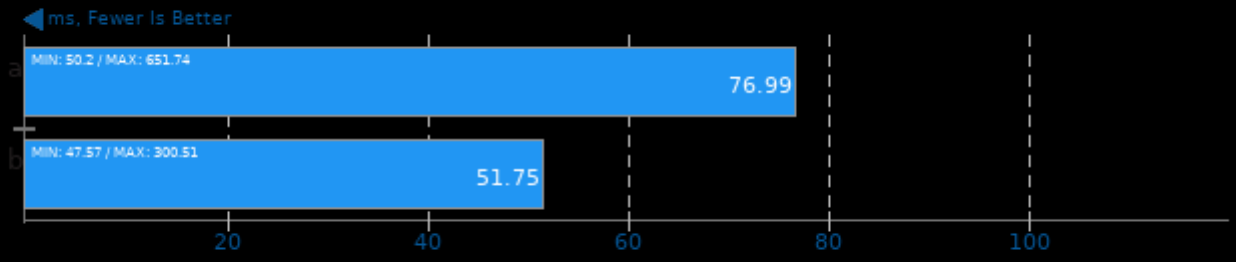
Hash: SHA3-256



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

NCNN 20220729

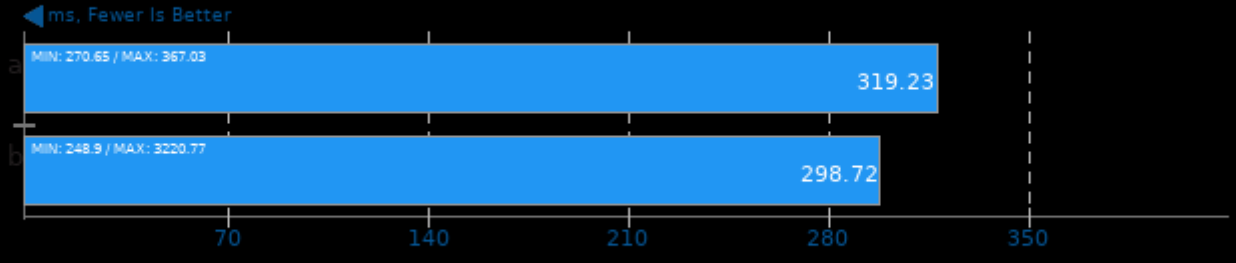
Target: CPU - Model: FastestDet



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

NCNN 20220729

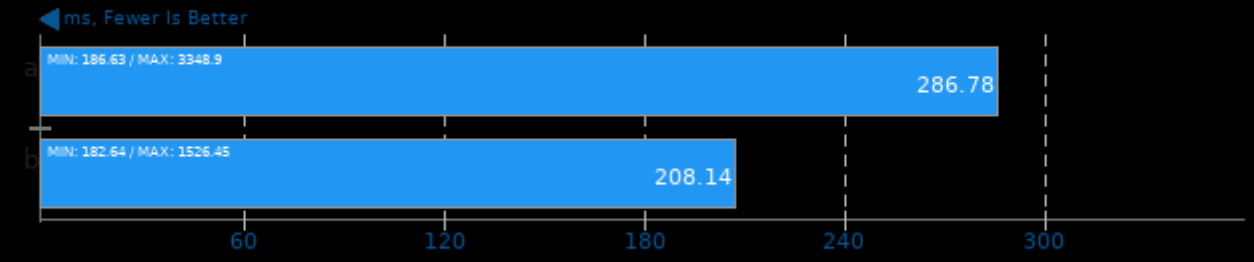
Target: CPU - Model: vision_transformer



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

NCNN 20220729

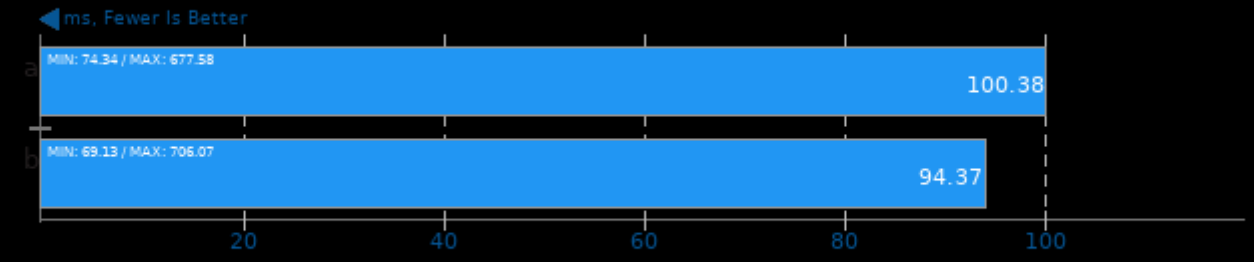
Target: CPU - Model: regnety_400m



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

NCNN 20220729

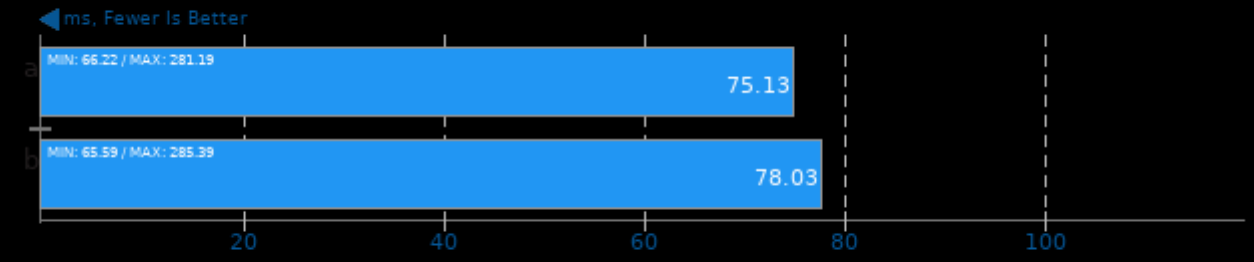
Target: CPU - Model: squeezenet_ssd



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

NCNN 20220729

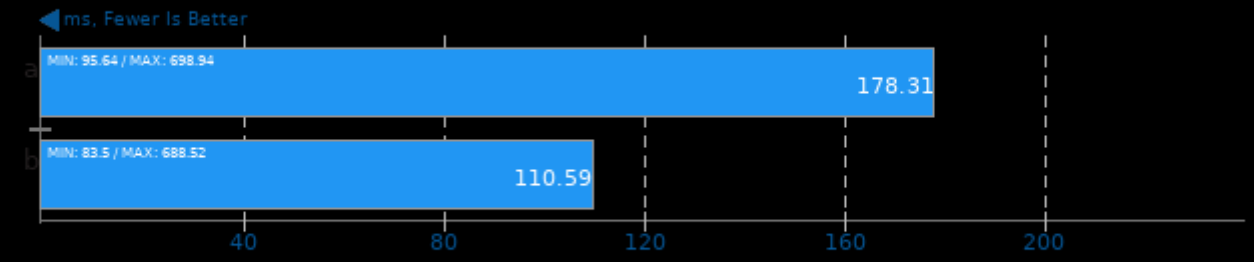
Target: CPU - Model: yolov4-tiny



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

NCNN 20220729

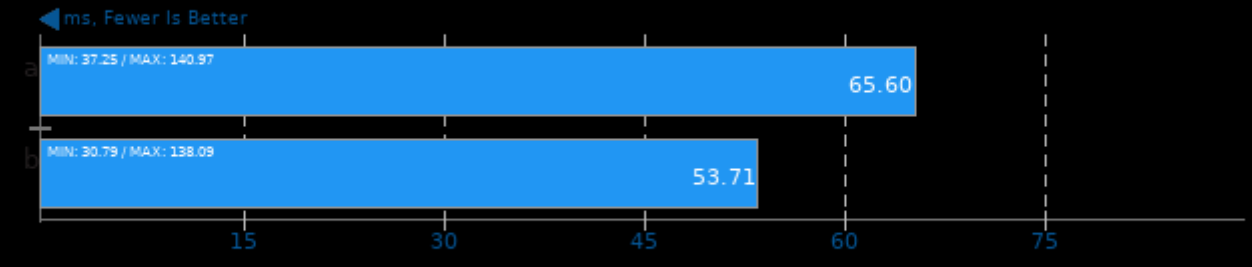
Target: CPU - Model: resnet50



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

NCNN 20220729

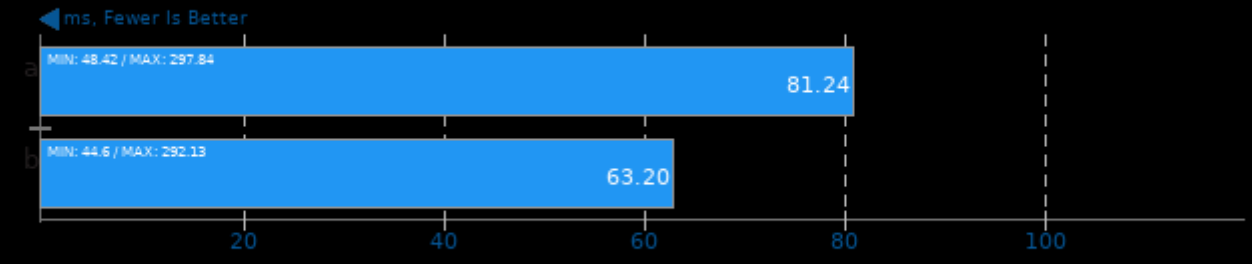
Target: CPU - Model: alexnet



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

NCNN 20220729

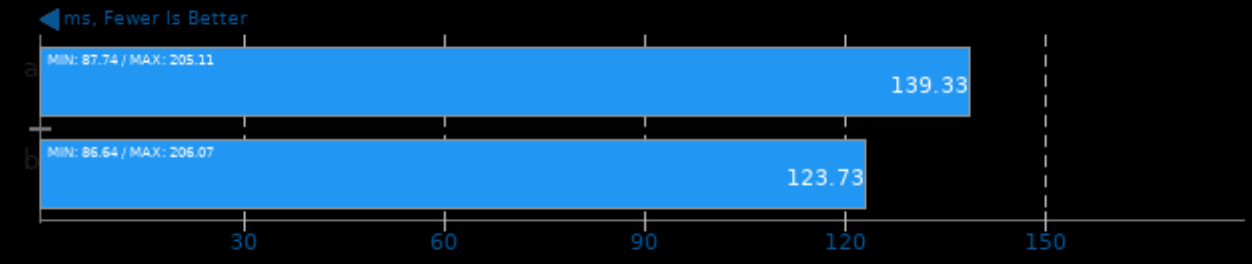
Target: CPU - Model: resnet18



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

NCNN 20220729

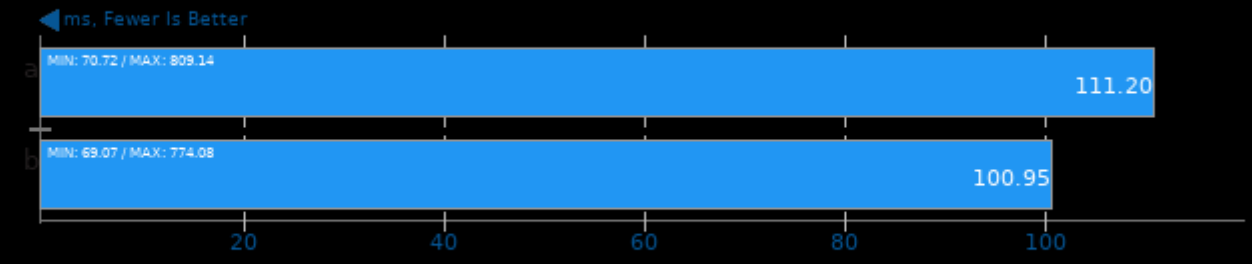
Target: CPU - Model: vgg16



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

NCNN 20220729

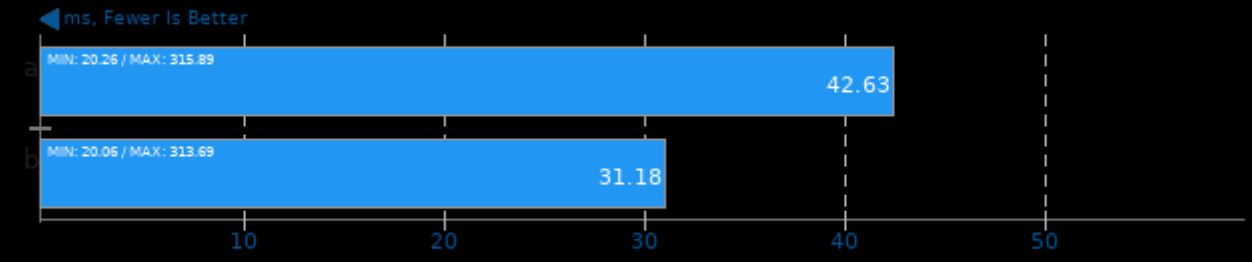
Target: CPU - Model: googlenet



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

NCNN 20220729

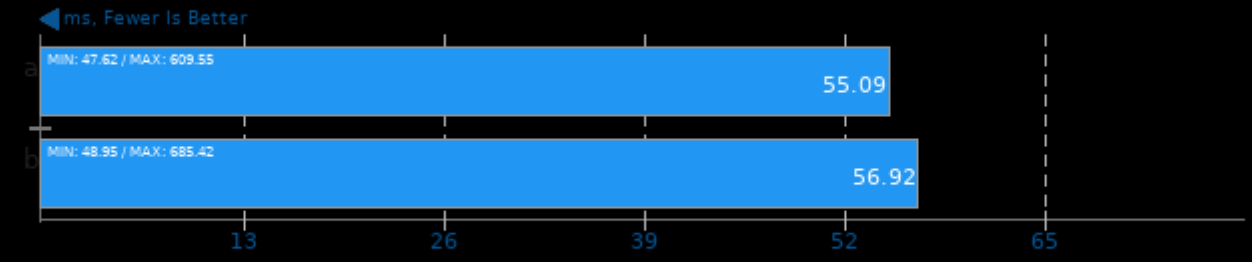
Target: CPU - Model: blazeface



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

NCNN 20220729

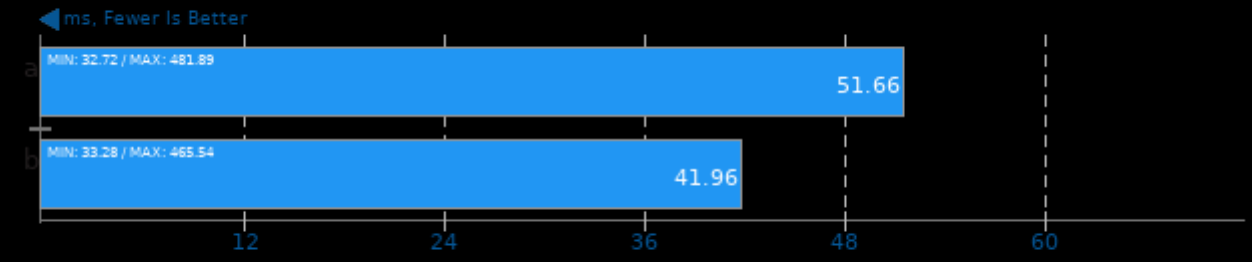
Target: CPU - Model: efficientnet-b0



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

NCNN 20220729

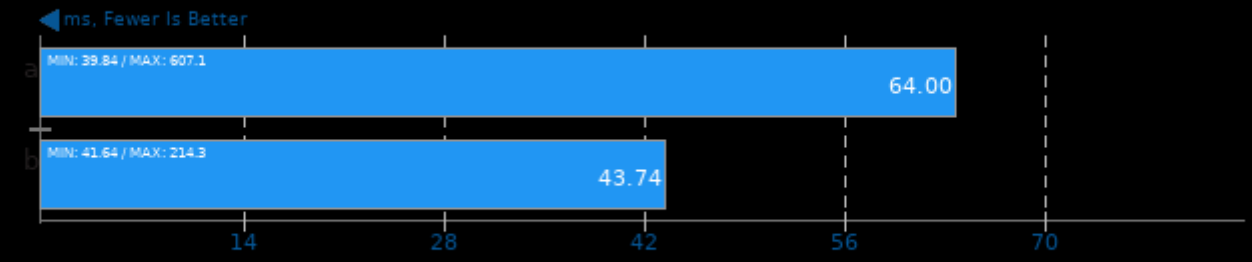
Target: CPU - Model: mnasnet



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

NCNN 20220729

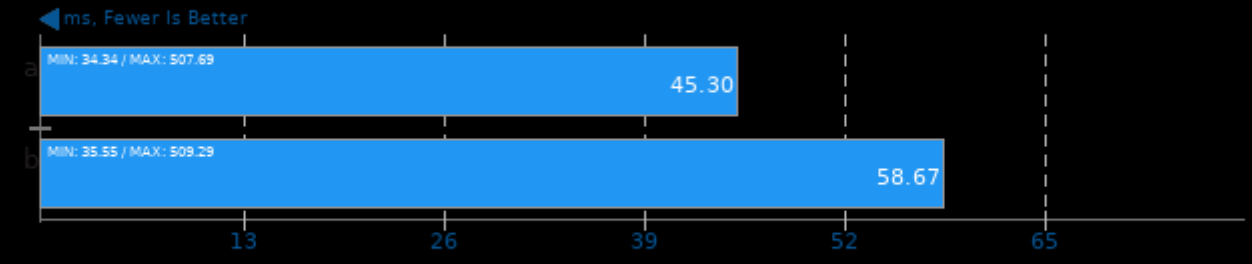
Target: CPU - Model: shufflenet-v2



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

NCNN 20220729

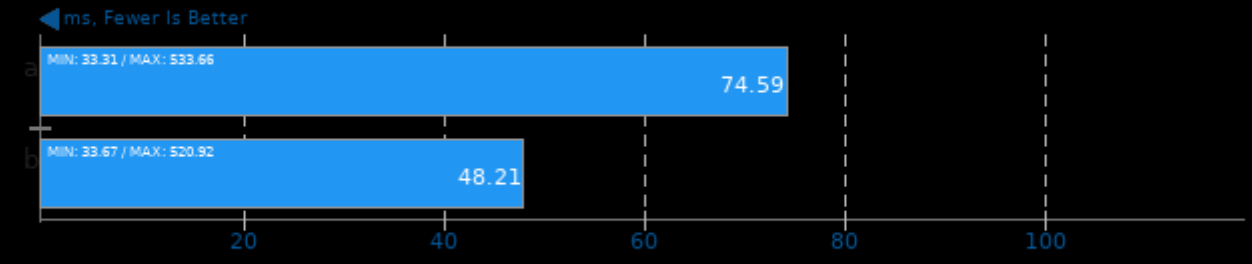
Target: CPU-v3-v3 - Model: mobilenet-v3



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

NCNN 20220729

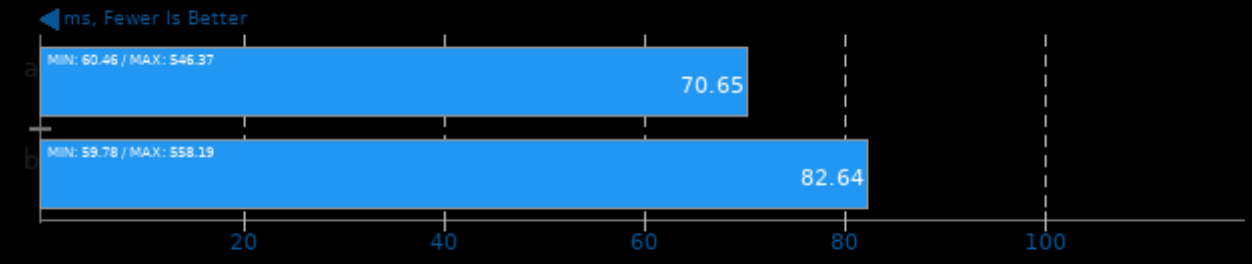
Target: CPU-v2-v2 - Model: mobilenet-v2



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

NCNN 20220729

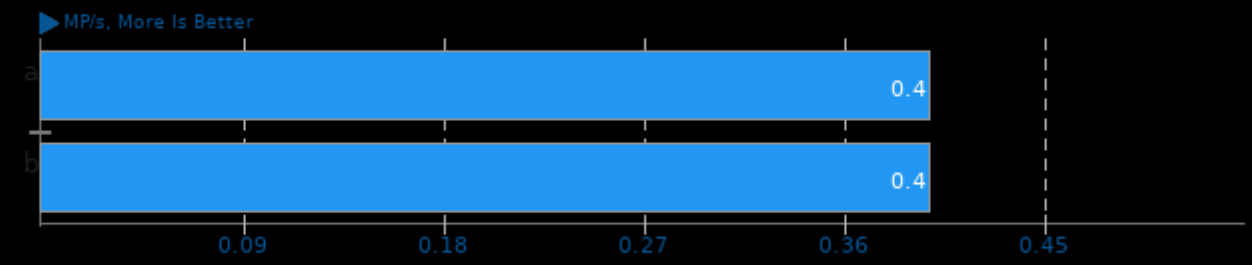
Target: CPU - Model: mobilenet



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

JPEG XL libjxl 0.7

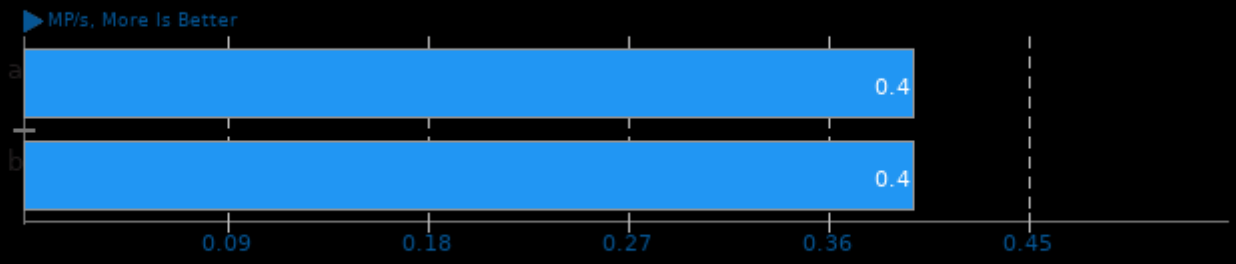
Input: PNG - Quality: 100



1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -latomic

JPEG XL libjxl 0.7

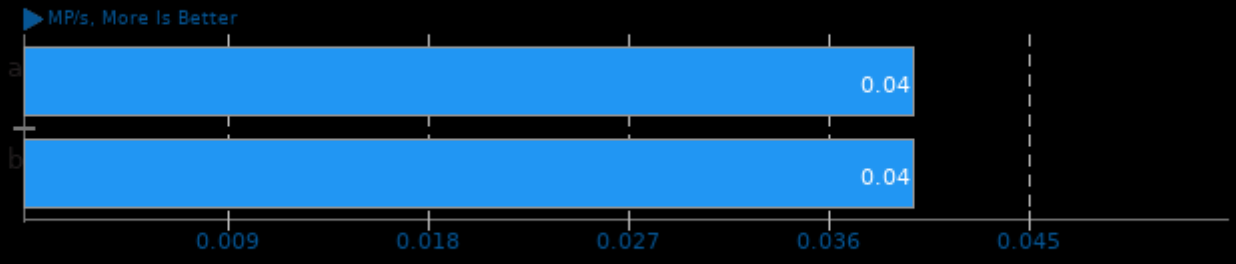
Input: JPEG - Quality: 100



1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -latomic

WebP2 Image Encode 20220823

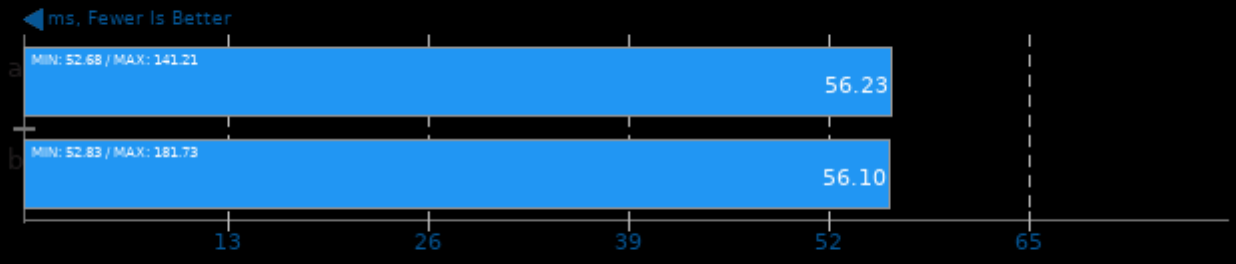
Encode Settings: Quality 100, Lossless Compression



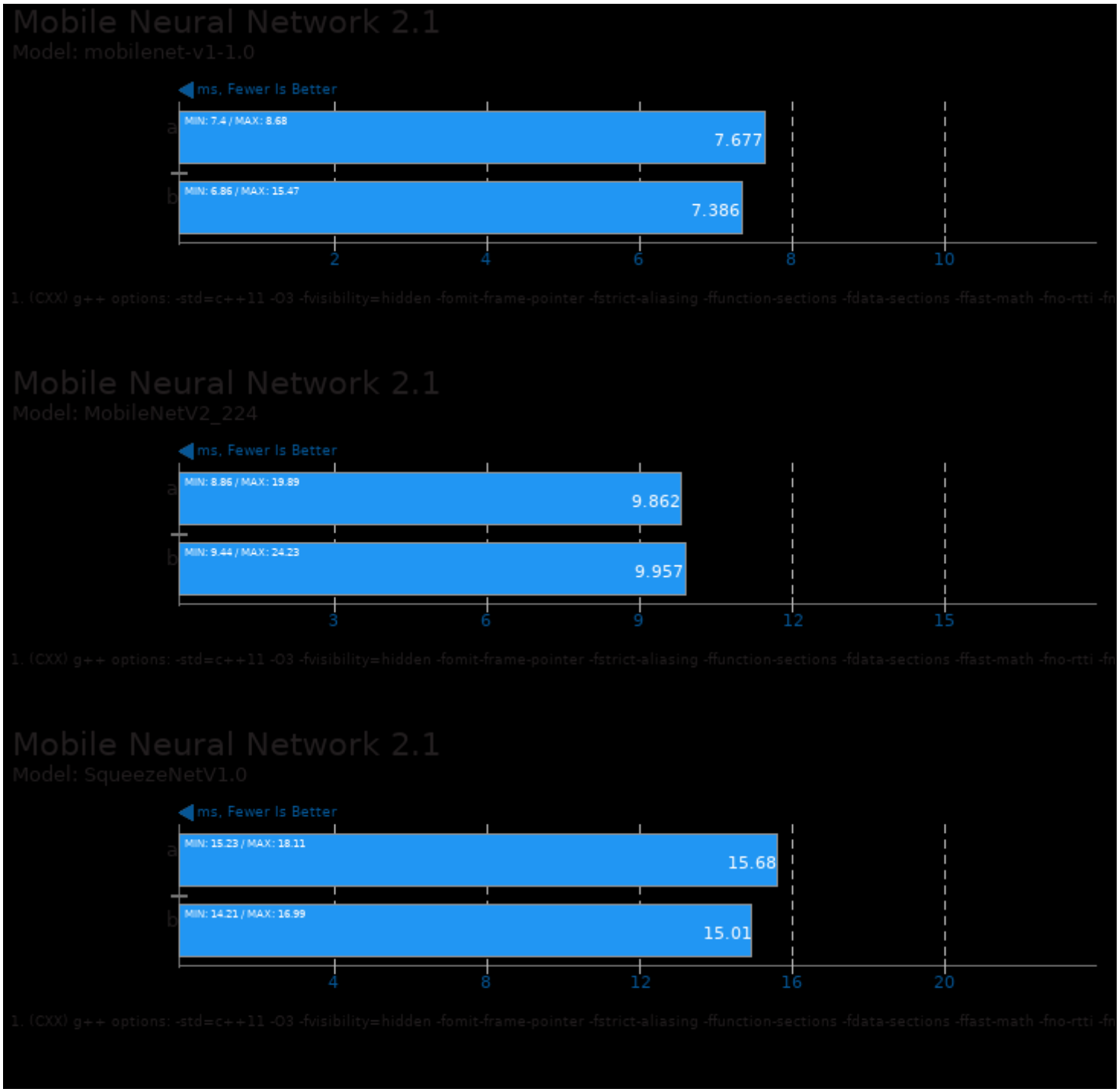
1. (CXX) g++ options: -msse4.2 -fno-rtti -O3 -ldl

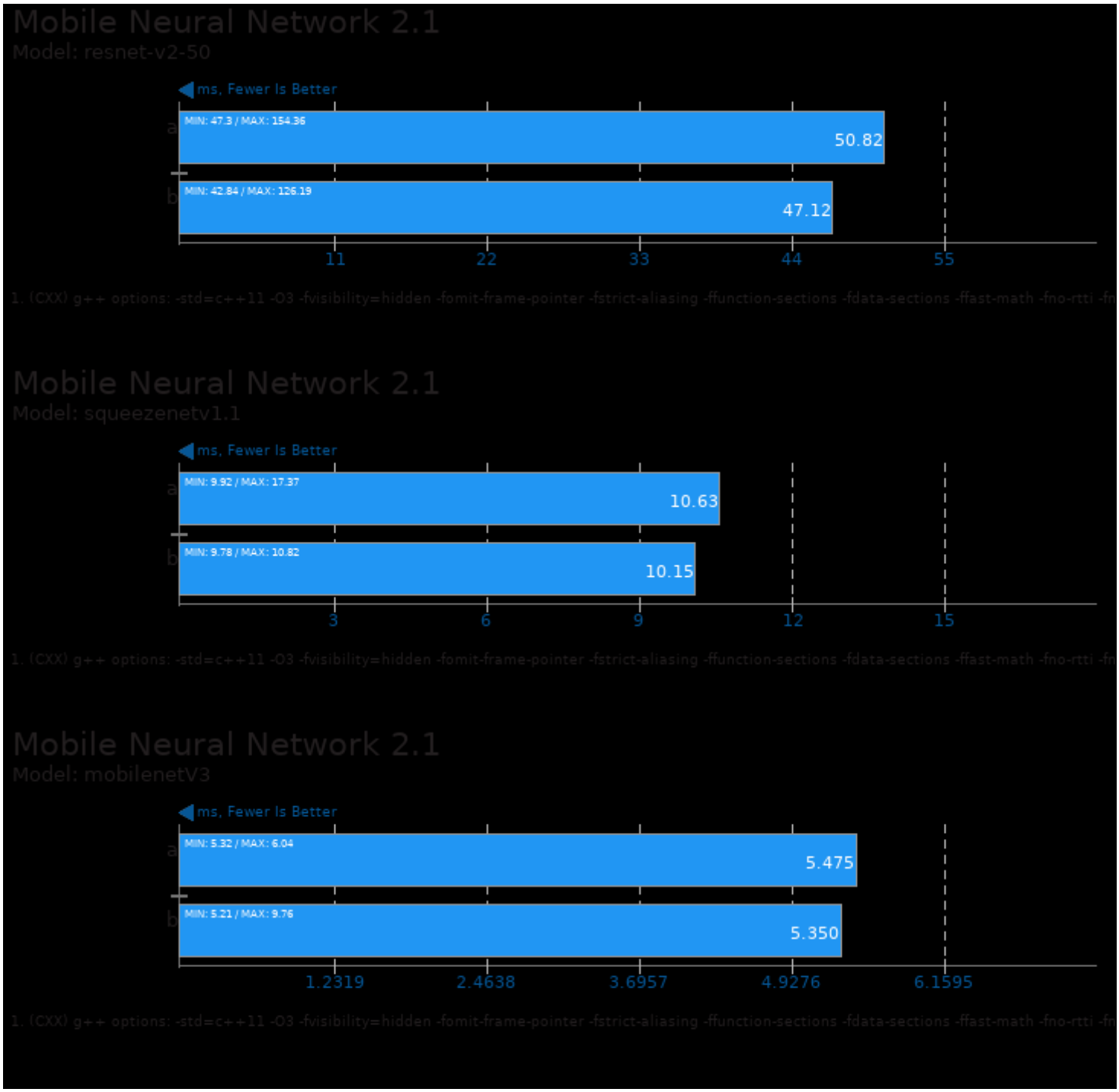
Mobile Neural Network 2.1

Model: inception-v3



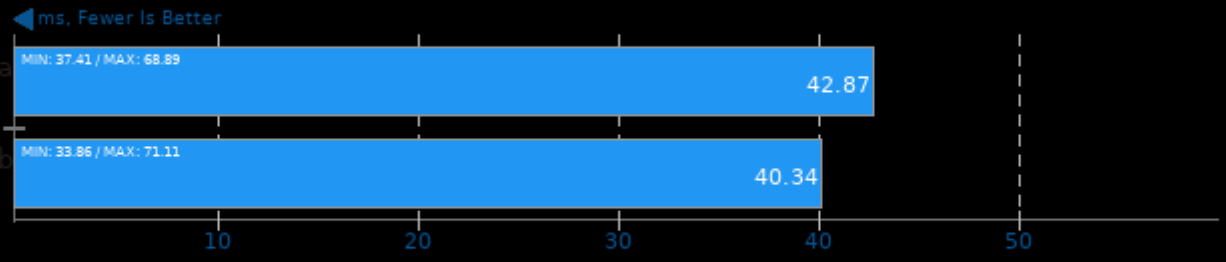
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fv


Mobile Neural Network 2.1
Model: mobilenet-v1-1.0
ms, Fewer Is Better
a
MIN: 7.4 / MAX: 8.68
7.677
b
MIN: 6.86 / MAX: 15.47
7.386
2
4
6
8
10
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn
Mobile Neural Network 2.1
Model: MobileNetV2_224
ms, Fewer Is Better
a
MIN: 8.86 / MAX: 19.89
9.862
b
MIN: 9.44 / MAX: 24.23
9.957
3
6
9
12
15
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn
Mobile Neural Network 2.1
Model: SqueezeNetV1.0
ms, Fewer Is Better
a
MIN: 15.23 / MAX: 18.11
15.68
b
MIN: 14.21 / MAX: 16.99
15.01
4
8
12
16
20
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn


Mobile Neural Network 2.1
Model: resnet-v2-50
ms, Fewer Is Better
a
MIN: 47.3 / MAX: 154.36
50.82
b
MIN: 42.84 / MAX: 126.19
47.12
11
22
33
44
55
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn
Mobile Neural Network 2.1
Model: squeezenetv1.1
ms, Fewer Is Better
a
MIN: 9.92 / MAX: 17.37
10.63
b
MIN: 9.78 / MAX: 10.82
10.15
3
6
9
12
15
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn
Mobile Neural Network 2.1
Model: mobilenetV3
ms, Fewer Is Better
a
MIN: 5.32 / MAX: 6.04
5.475
b
MIN: 5.21 / MAX: 9.76
5.350
1.2319
2.4638
3.6957
4.9276
6.1595
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn

Mobile Neural Network 2.1

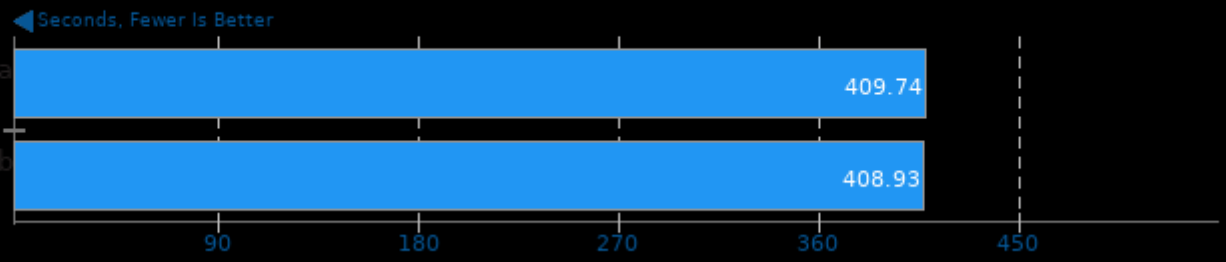
Model: nasnet



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

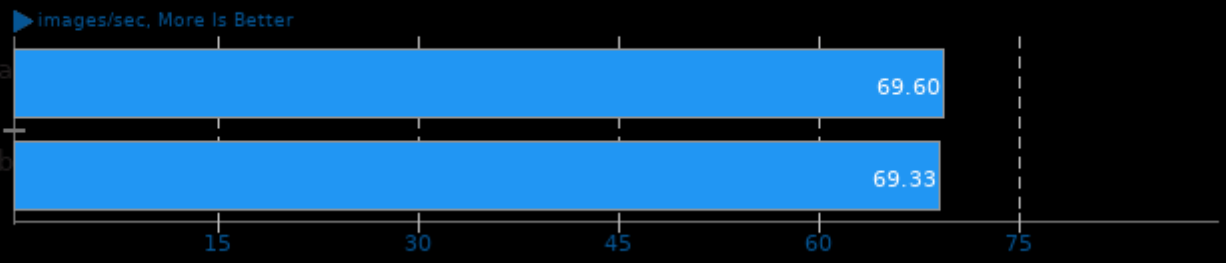
Blender 3.3

Blend File: Barbershop - Compute: CPU-Only



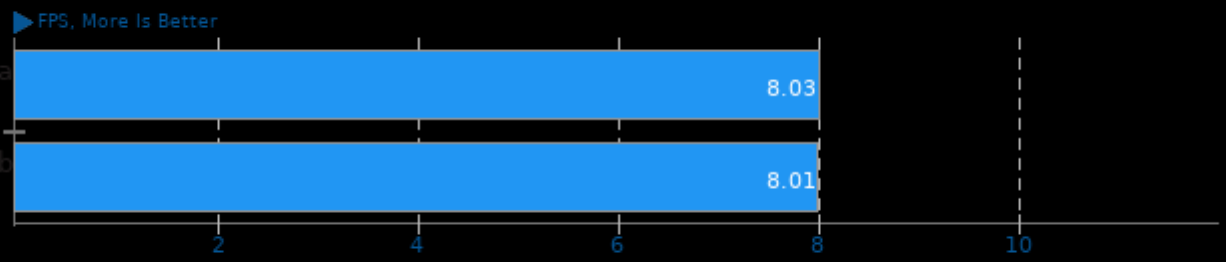
TensorFlow 2.10

Device: CPU - Batch Size: 256 - Model: AlexNet



FFmpeg 5.1.2

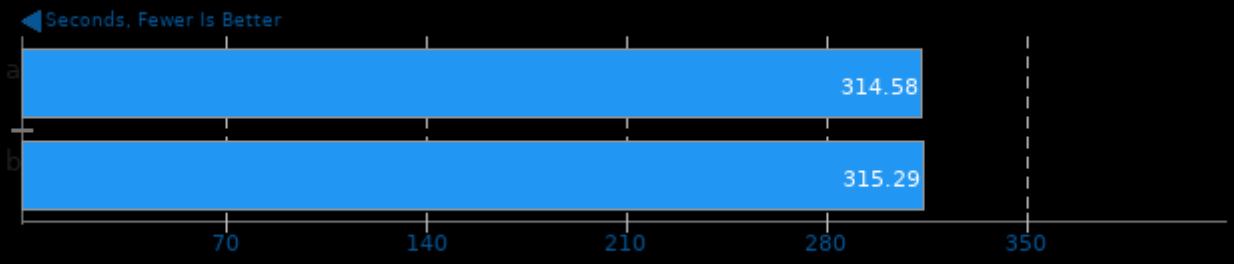
Encoder: libx264 - Scenario: Upload



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

FFmpeg 5.1.2

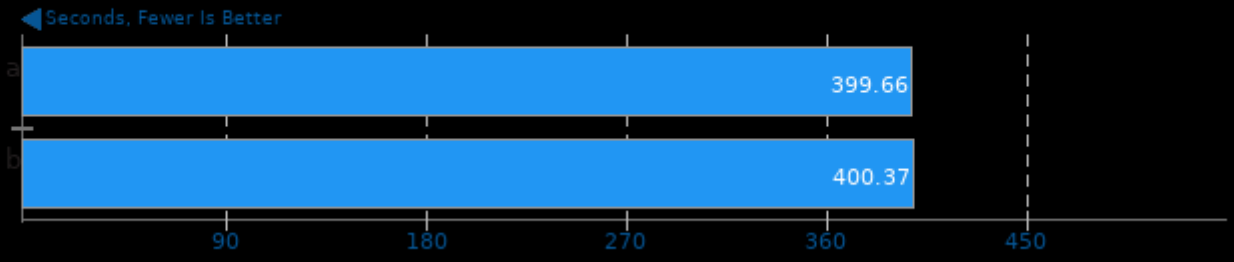
Encoder: libx264 - Scenario: Upload



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

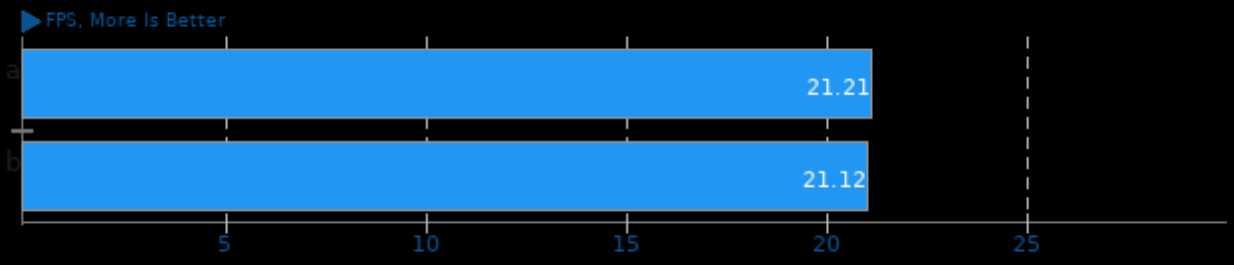
Timed CPython Compilation 3.10.6

Build Configuration: Released Build, PGO + LTO Optimized



FFmpeg 5.1.2

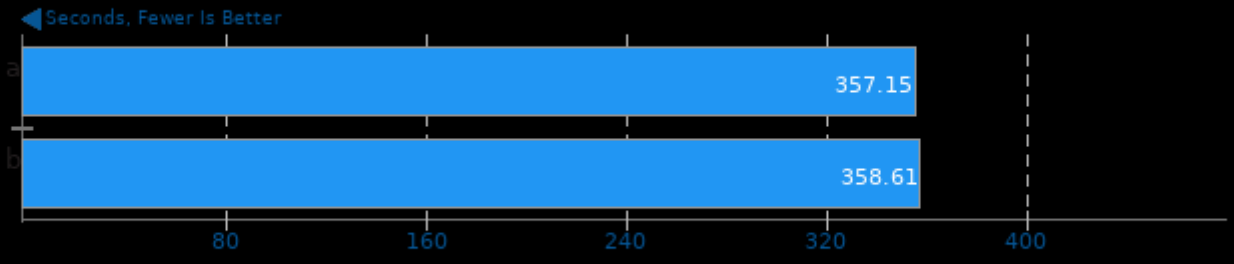
Encoder: libx265 - Scenario: Video On Demand



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

FFmpeg 5.1.2

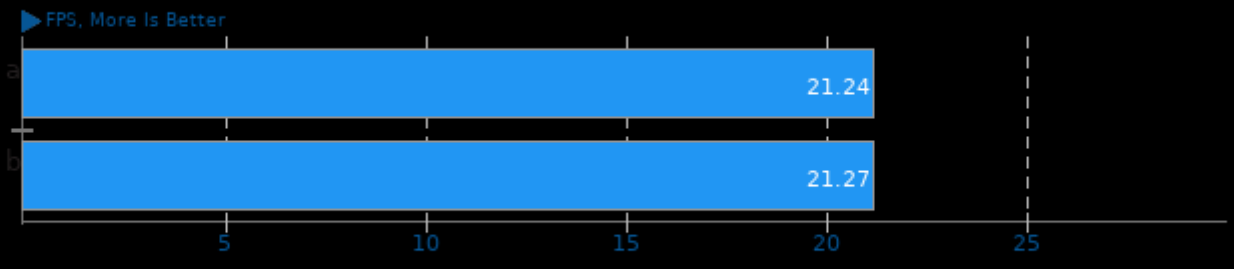
Encoder: libx265 - Scenario: Video On Demand



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

FFmpeg 5.1.2

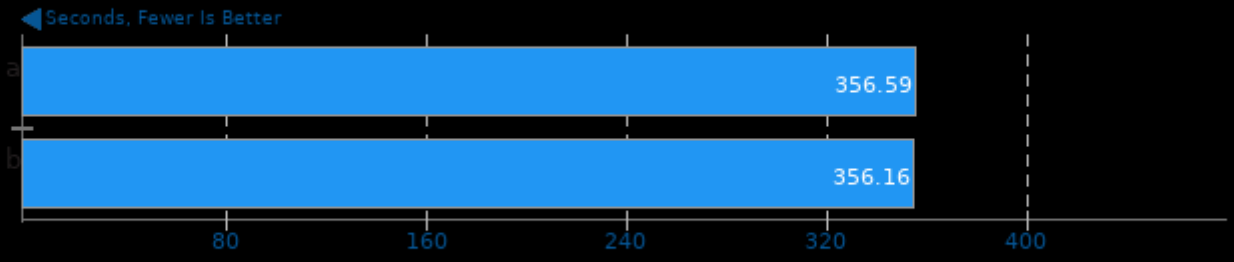
Encoder: libx265 - Scenario: Platform



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

FFmpeg 5.1.2

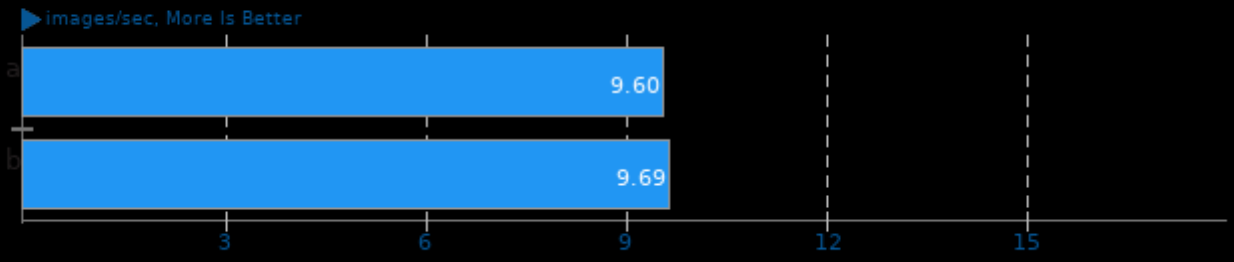
Encoder: libx265 - Scenario: Platform



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

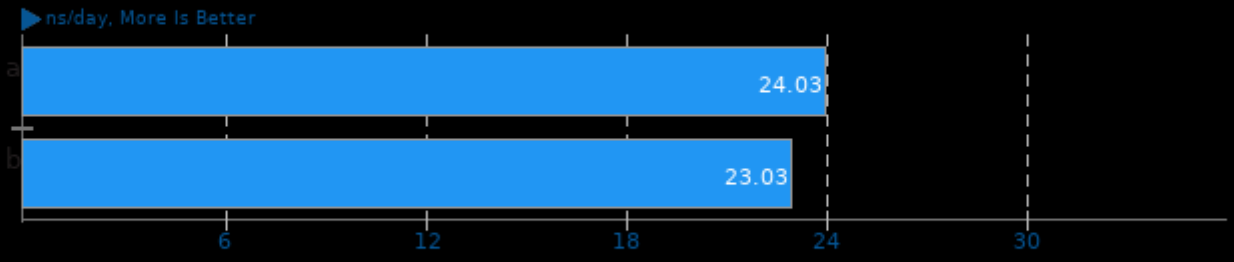
TensorFlow 2.10

Device: CPU - Batch Size: 32 - Model: ResNet-50



LAMMPS Molecular Dynamics Simulator 23Jun2022

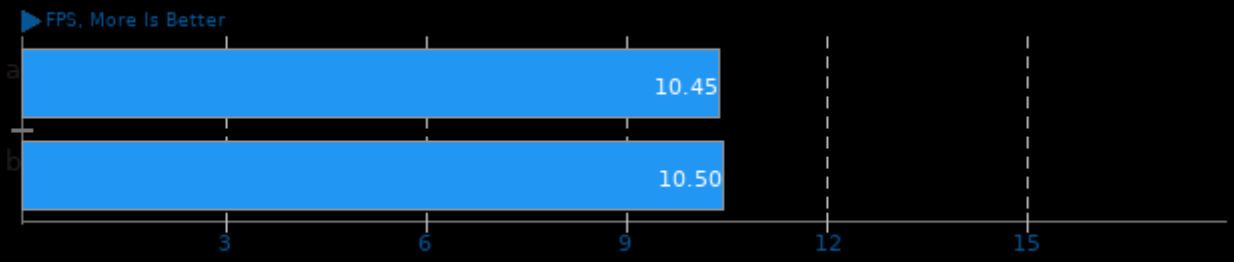
Model: 20k Atoms



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

FFmpeg 5.1.2

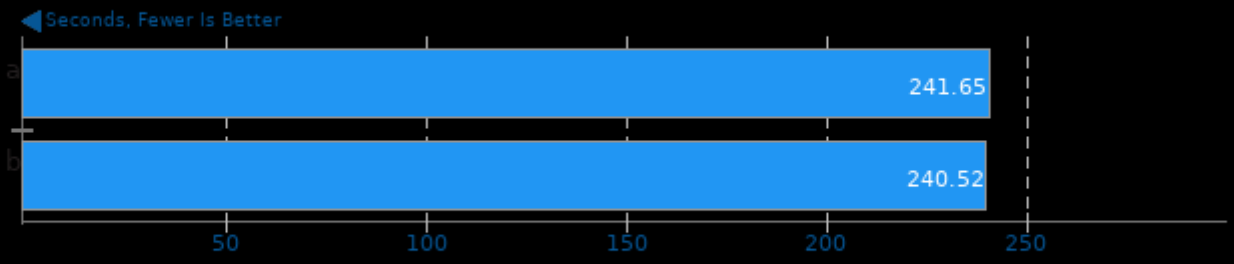
Encoder: libx265 - Scenario: Upload



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

FFmpeg 5.1.2

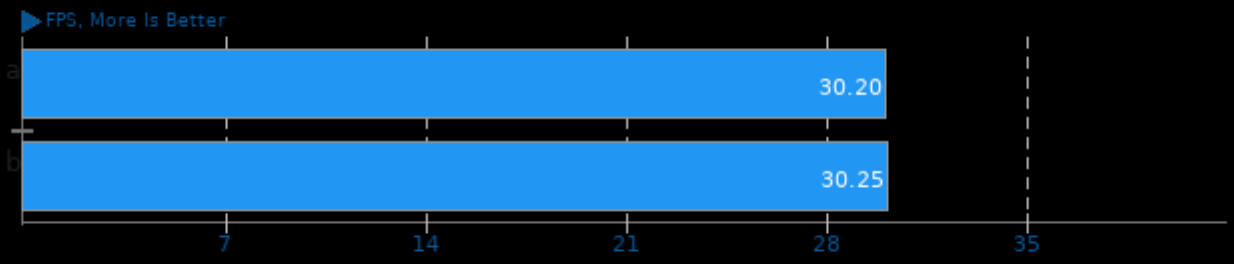
Encoder: libx265 - Scenario: Upload



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

FFmpeg 5.1.2

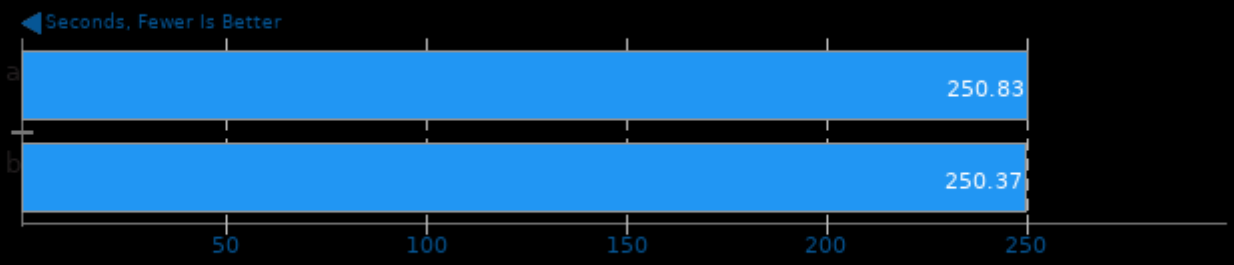
Encoder: libx264 - Scenario: Video On Demand



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

FFmpeg 5.1.2

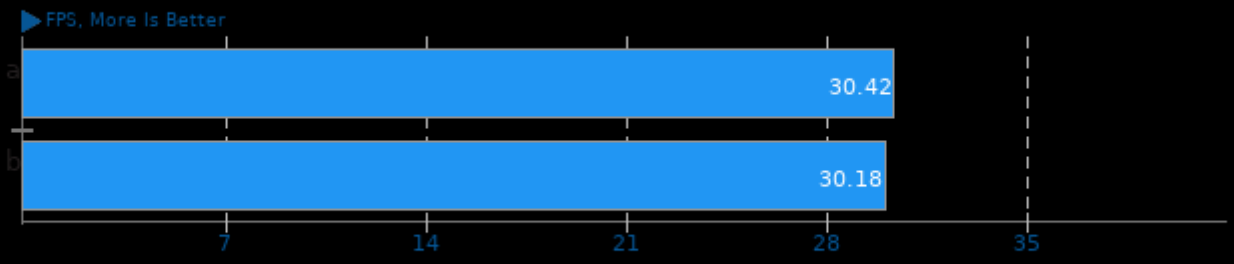
Encoder: libx264 - Scenario: Video On Demand



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

FFmpeg 5.1.2

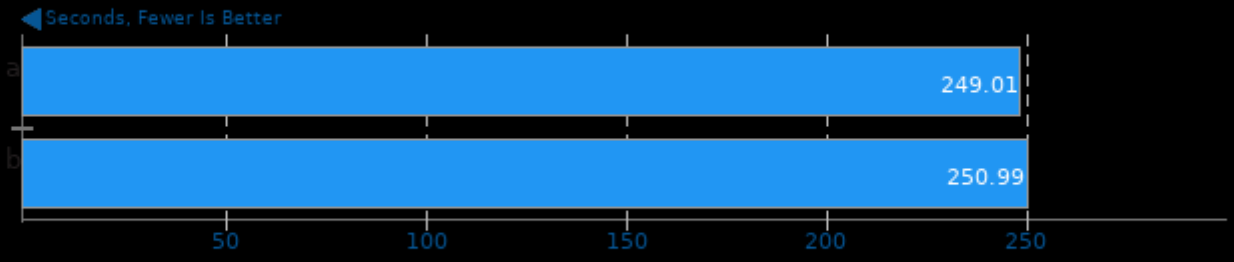
Encoder: libx264 - Scenario: Platform



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

FFmpeg 5.1.2

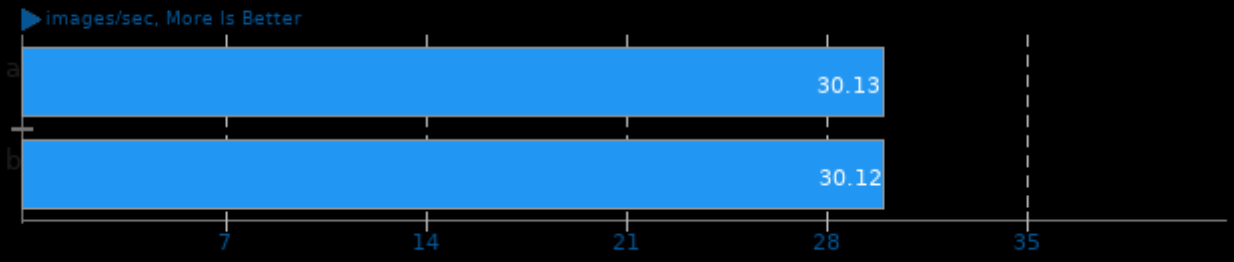
Encoder: libx264 - Scenario: Platform



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

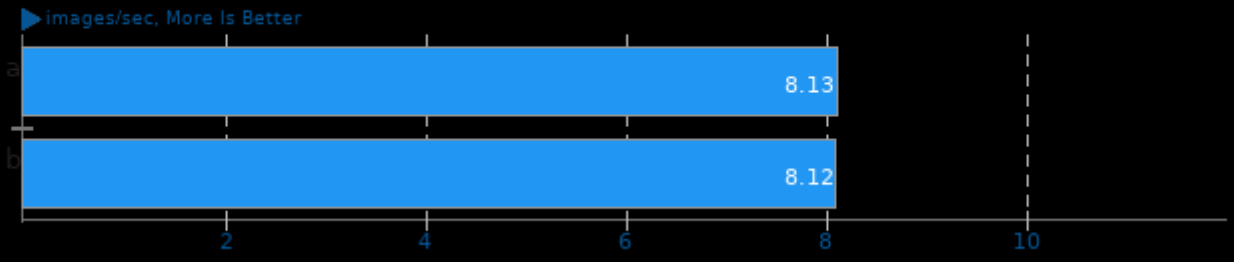
TensorFlow 2.10

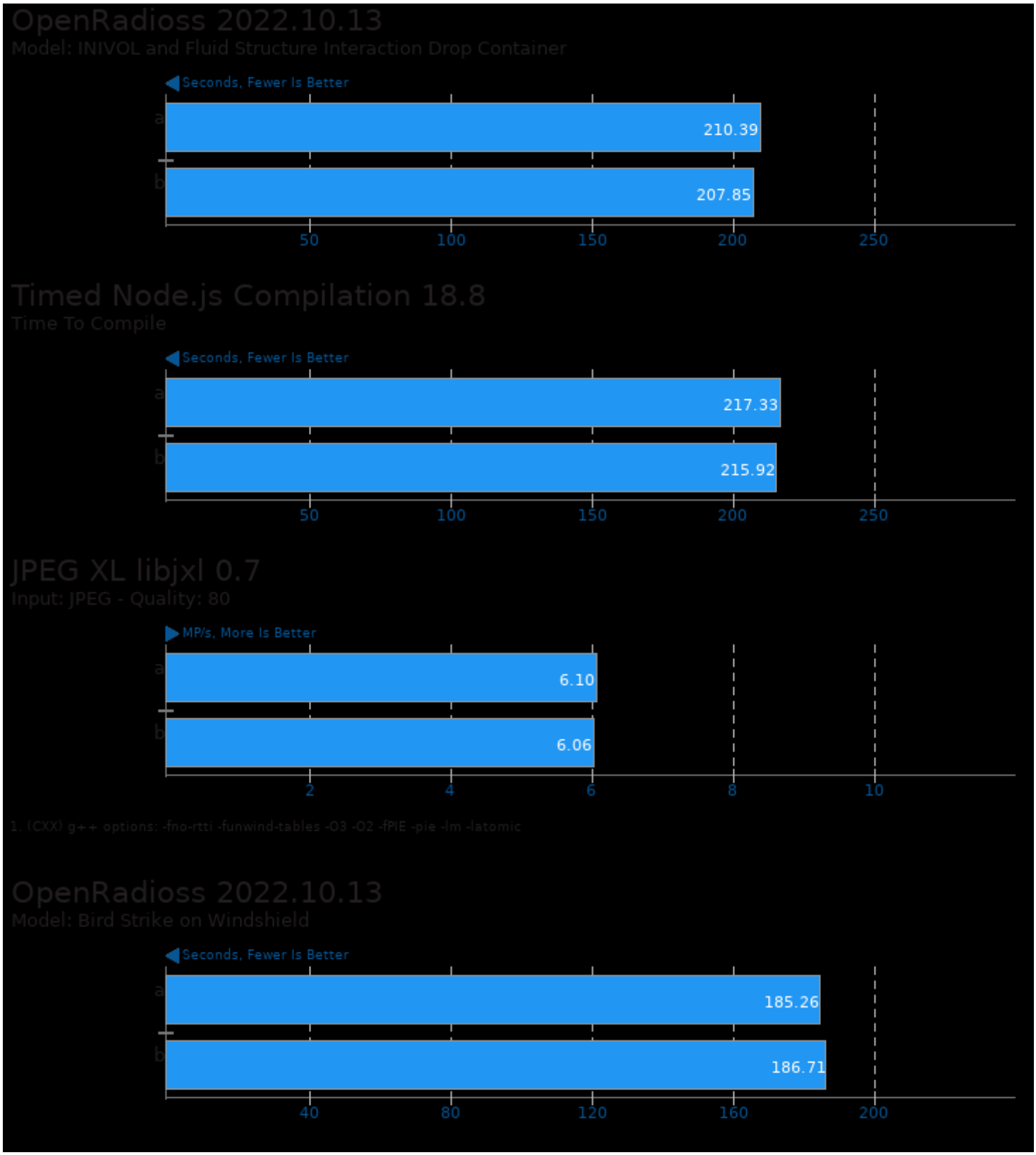
Device: CPU - Batch Size: 64 - Model: GoogLeNet



TensorFlow 2.10

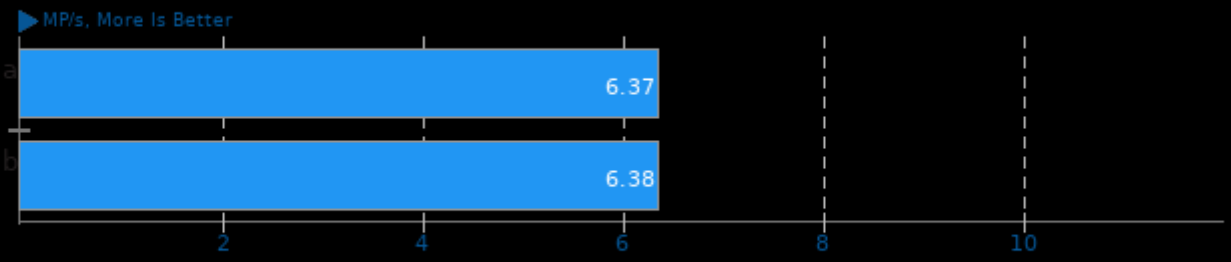
Device: CPU - Batch Size: 16 - Model: ResNet-50




OpenRadioss 2022.10.13
Model: INIVOL and Fluid Structure Interaction Drop Container
Seconds, Fewer Is Better
a
210.39
b
207.85
50
100
150
200
250
Timed Node.js Compilation 18.8
Time To Compile
Seconds, Fewer Is Better
a
217.33
b
215.92
50
100
150
200
250
JPEG XL libjxl 0.7
Input: JPEG - Quality: 80
MP/s, More Is Better
a
6.10
b
6.06
2
4
6
8
10
1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -latomic
OpenRadioss 2022.10.13
Model: Bird Strike on Windshield
Seconds, Fewer Is Better
a
185.26
b
186.71
40
80
120
160
200

JPEG XL libjxl 0.7

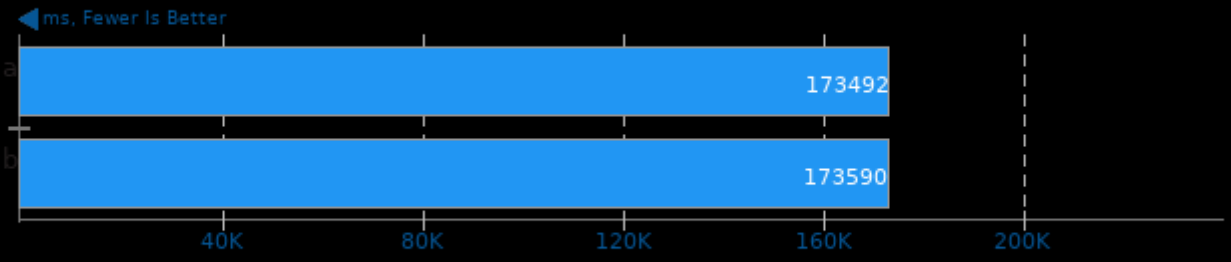
Input: PNG - Quality: 80



1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -latomic

OSPRay Studio 0.11

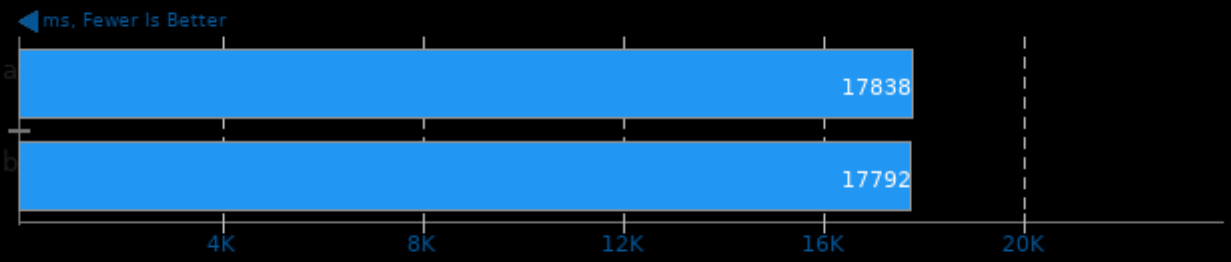
Camera: 3 - Resolution: 4K - Samples Per Pixel: 32 - Renderer: Path Tracer



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

OSPRay Studio 0.11

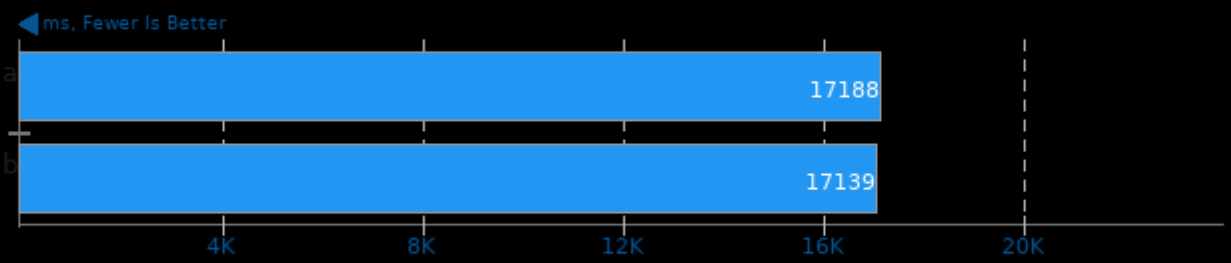
Camera: 2 - Resolution: 1080p - Samples Per Pixel: 16 - Renderer: Path Tracer



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

OSPRay Studio 0.11

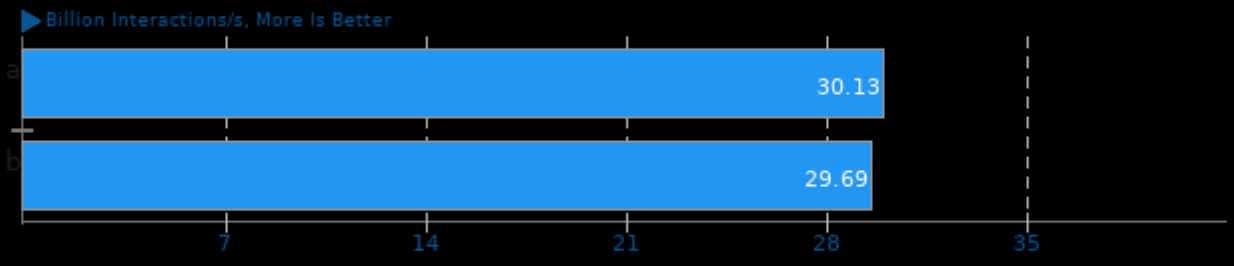
Camera: 1 - Resolution: 1080p - Samples Per Pixel: 16 - Renderer: Path Tracer



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

miniBUDE 20210901

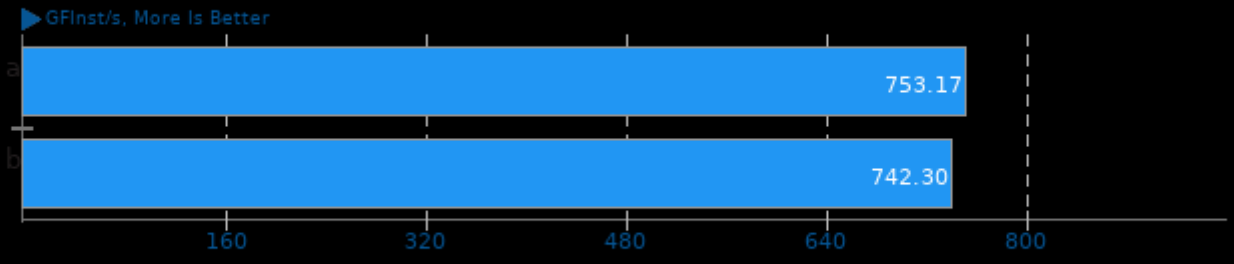
Implementation: OpenMP - Input Deck: BM2



1. (CC) gcc options: -std=c99 -Ofast -ffast-math -fopenmp -march=native -lm

miniBUDE 20210901

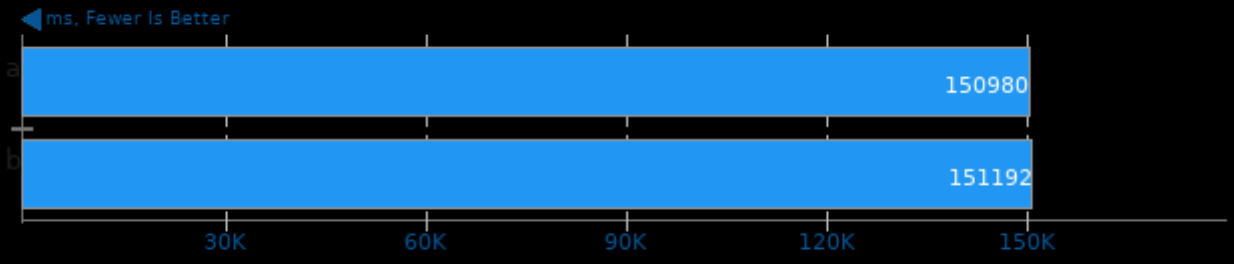
Implementation: OpenMP - Input Deck: BM2



1. (CC) gcc options: -std=c99 -Ofast -ffast-math -fopenmp -march=native -lm

OSPRay Studio 0.11

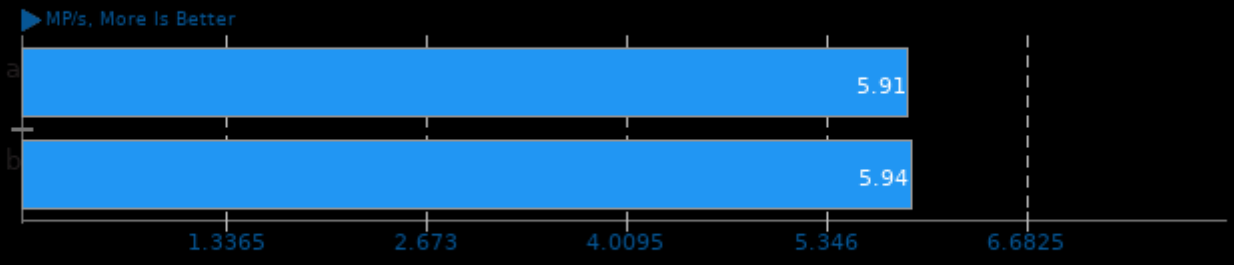
Camera: 2 - Resolution: 4K - Samples Per Pixel: 32 - Renderer: Path Tracer



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

JPEG XL libjxl 0.7

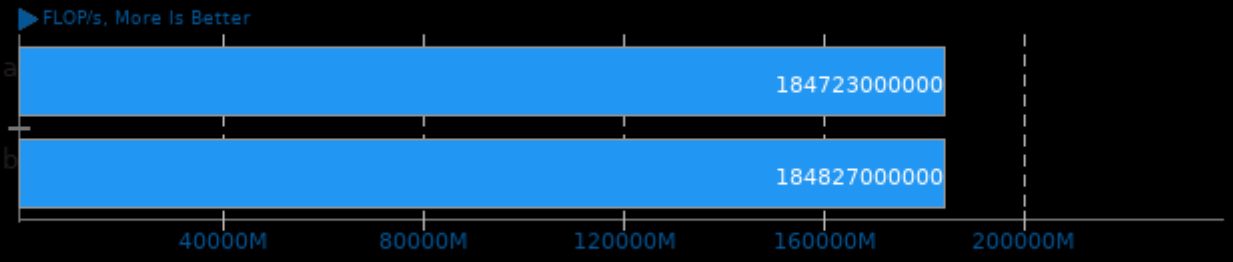
Input: JPEG - Quality: 90



1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -latomic

nekRS 22.0

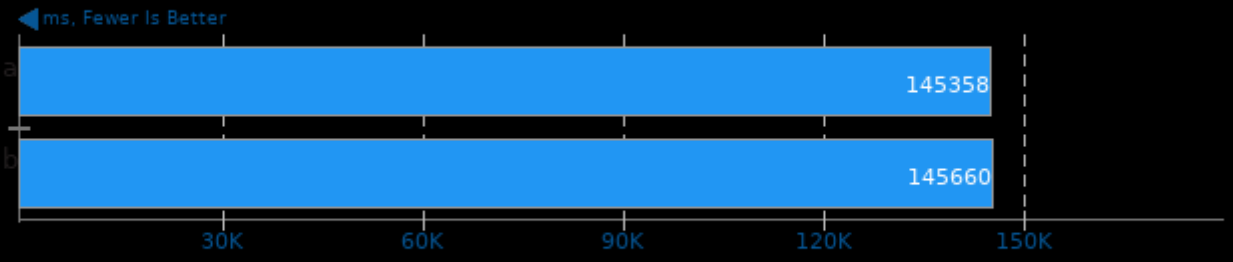
Input: TurboPipe Periodic



1. (CXX) g++ options: -fopenmp -O2 -march=native -mtune=native -ftree-vectorize -lmpi_cxx -lmpi

OSPRay Studio 0.11

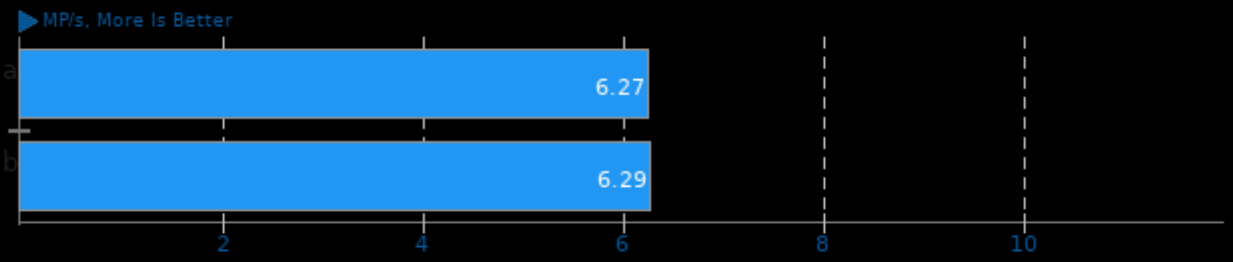
Camera: 1 - Resolution: 4K - Samples Per Pixel: 32 - Renderer: Path Tracer



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

JPEG XL libjxl 0.7

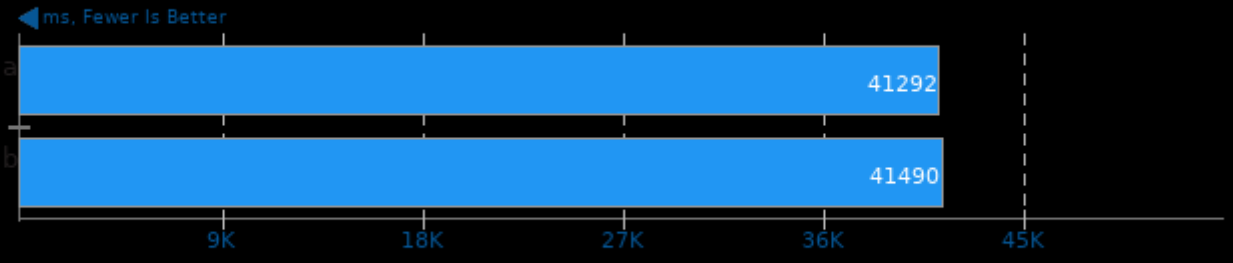
Input: PNG - Quality: 90



1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -latomic

OSPRay Studio 0.11

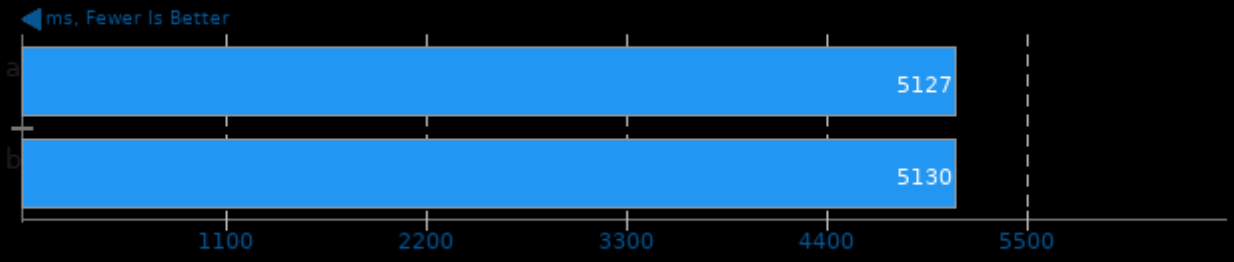
Camera: 3 - Resolution: 1080p - Samples Per Pixel: 32 - Renderer: Path Tracer



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

OSPRay Studio 0.11

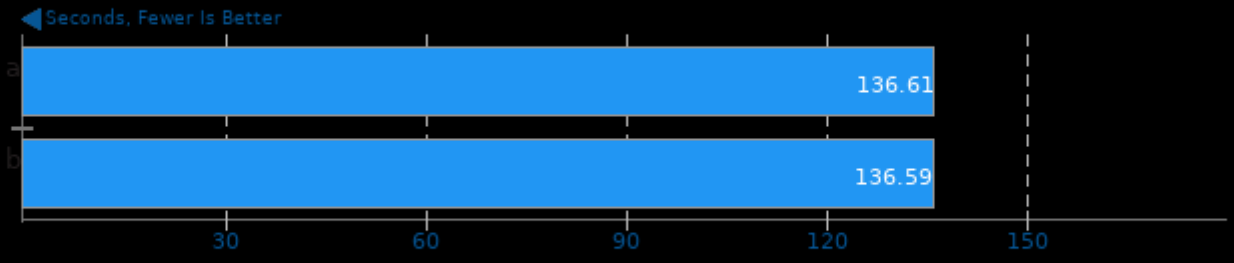
Camera: 3 - Resolution: 4K - Samples Per Pixel: 1 - Renderer: Path Tracer



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

libavif avifenc 0.11

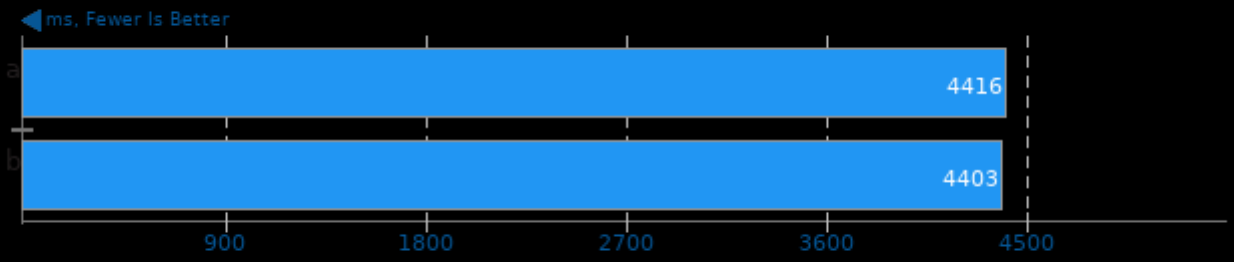
Encoder Speed: 0



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

OSPRay Studio 0.11

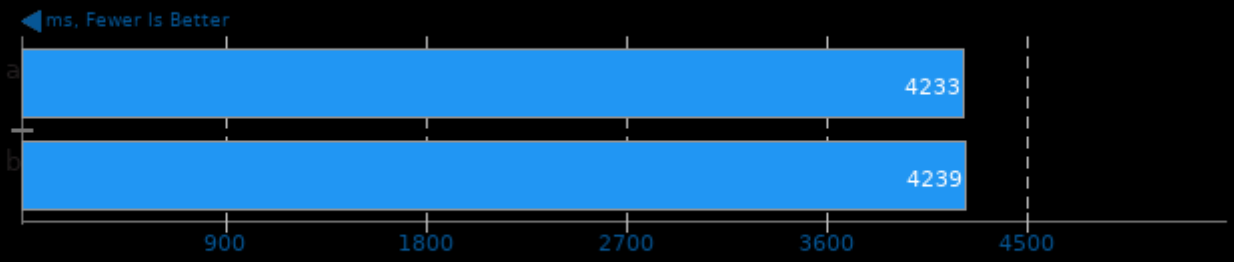
Camera: 2 - Resolution: 4K - Samples Per Pixel: 1 - Renderer: Path Tracer



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

OSPRay Studio 0.11

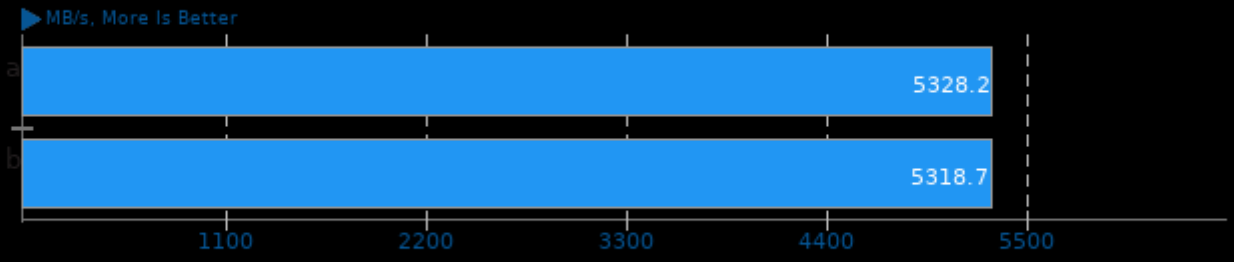
Camera: 1 - Resolution: 4K - Samples Per Pixel: 1 - Renderer: Path Tracer



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

C-Blosc 2.3

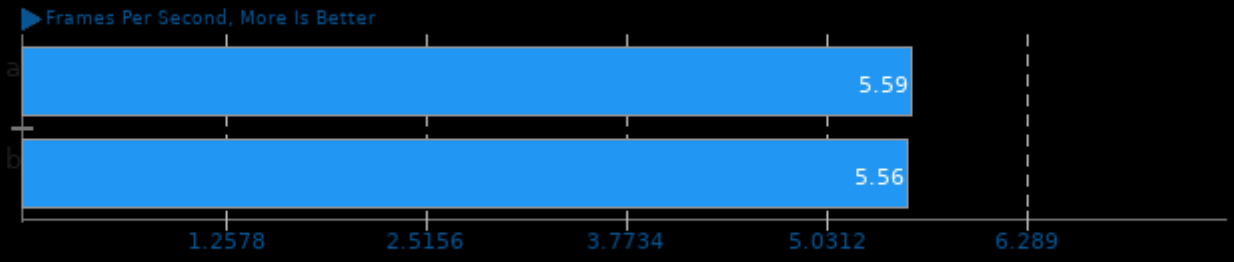
Test: blosclz bitshuffle



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

AOM AV1 3.5

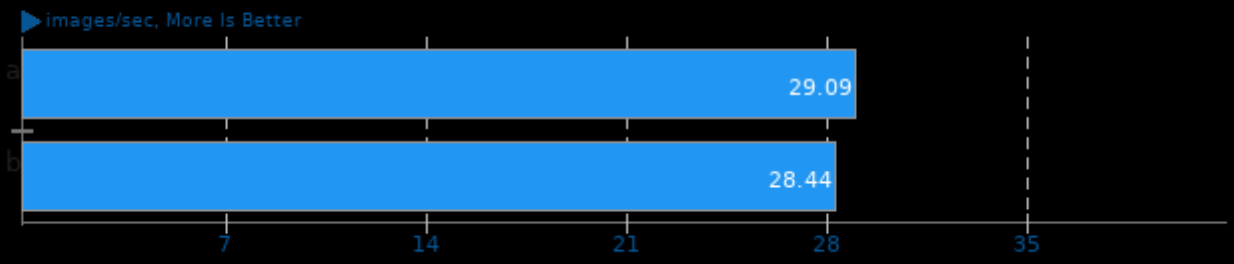
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

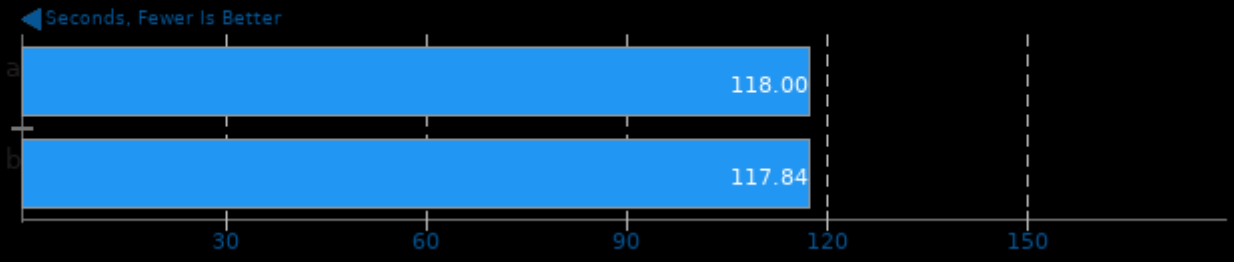
TensorFlow 2.10

Device: CPU - Batch Size: 32 - Model: GoogLeNet



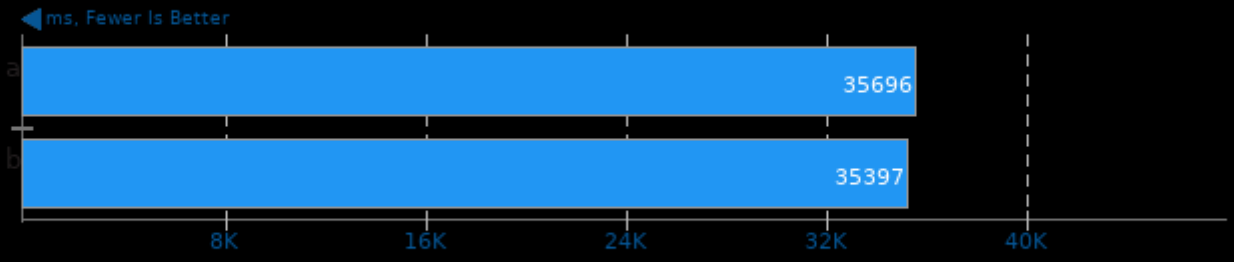
OpenRadioss 2022.10.13

Model: Rubber O-Ring Seal Installation



OSPRay Studio 0.11

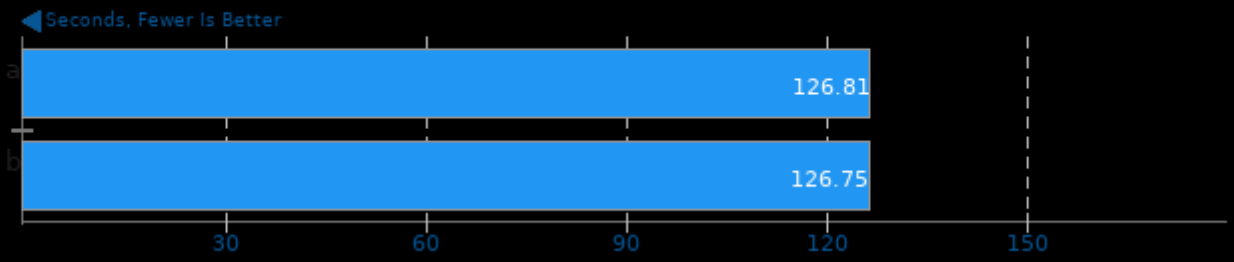
Camera: 2 - Resolution: 1080p - Samples Per Pixel: 32 - Renderer: Path Tracer



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

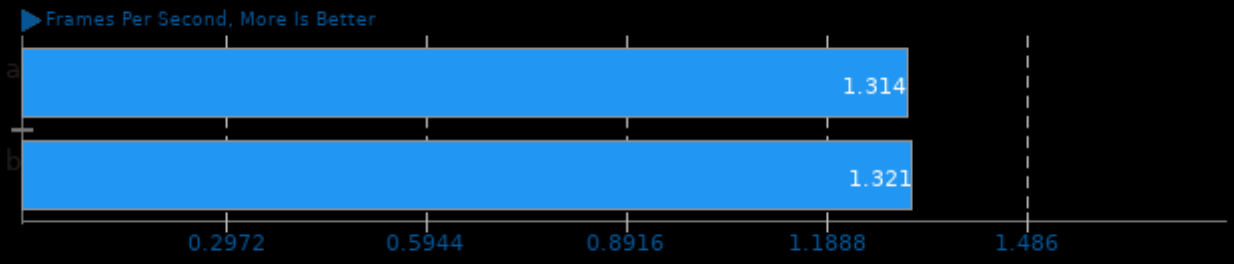
Blender 3.3

Blend File: Pabellon Barcelona - Compute: CPU-Only



SVT-AV1 1.2

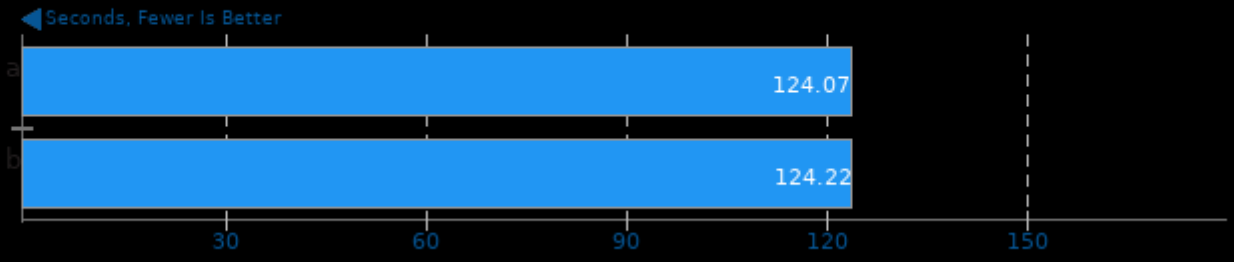
Encoder Mode: Preset 4 - Input: Bosphorus 4K



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

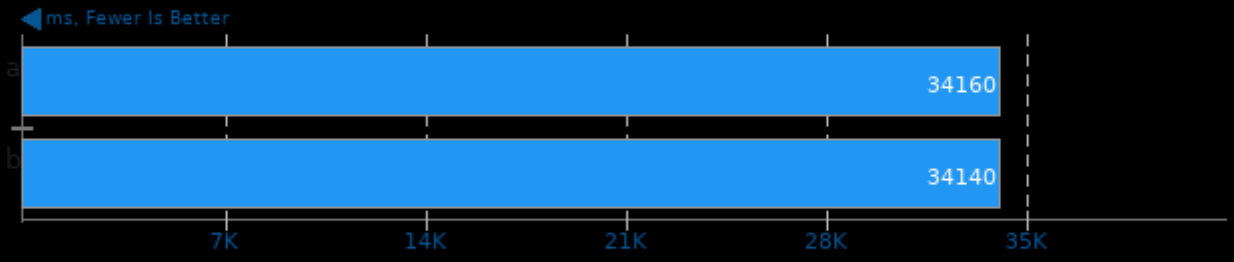
Timed Erlang/OTP Compilation 25.0

Time To Compile



OSPRay Studio 0.11

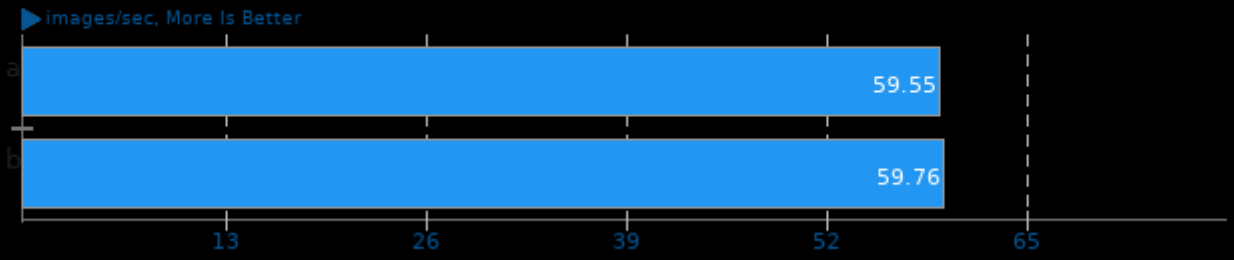
Camera: 1 - Resolution: 1080p - Samples Per Pixel: 32 - Renderer: Path Tracer



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

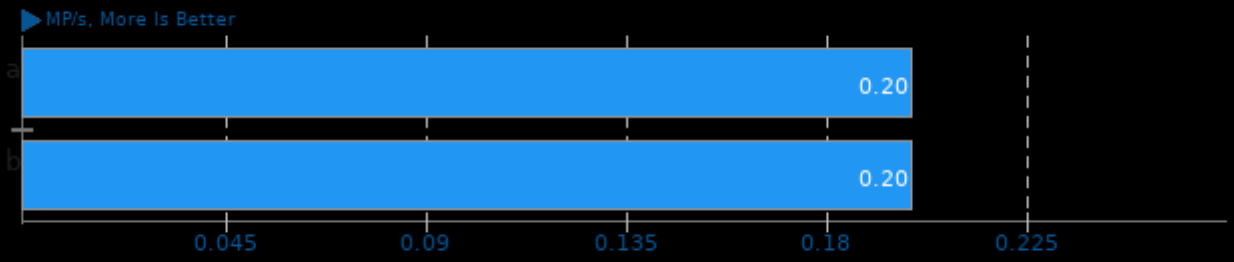
TensorFlow 2.10

Device: CPU - Batch Size: 64 - Model: AlexNet



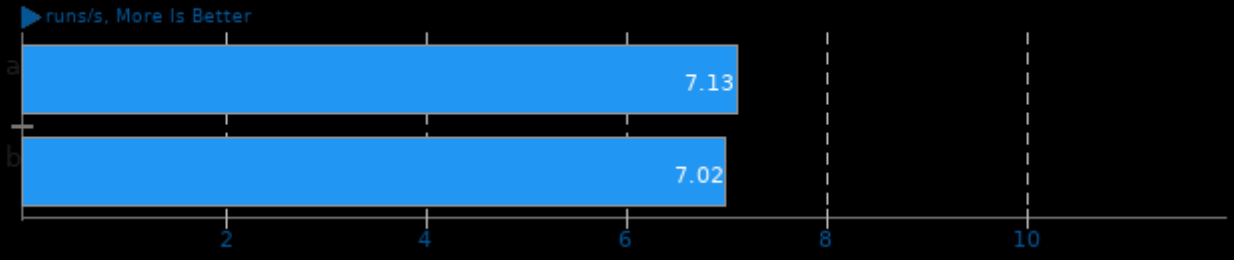
WebP2 Image Encode 20220823

Encode Settings: Quality 95, Compression Effort 7



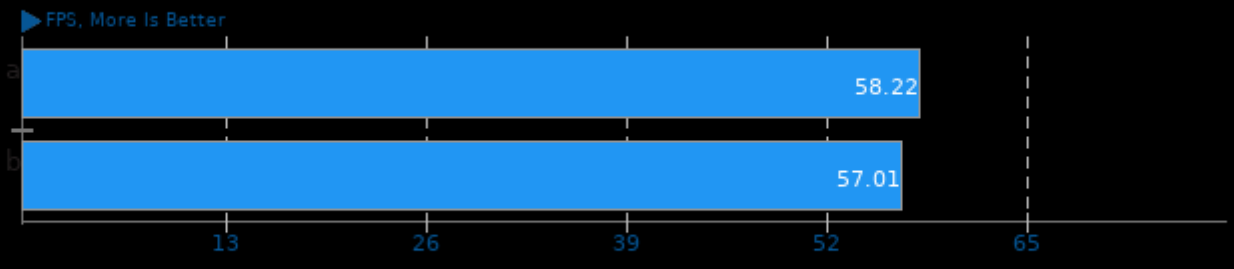
1. (CXX) g++ options: -msse4.2 -fno-rtti -O3 -ldl

Node.js V8 Web Tooling Benchmark



FFmpeg 5.1.2

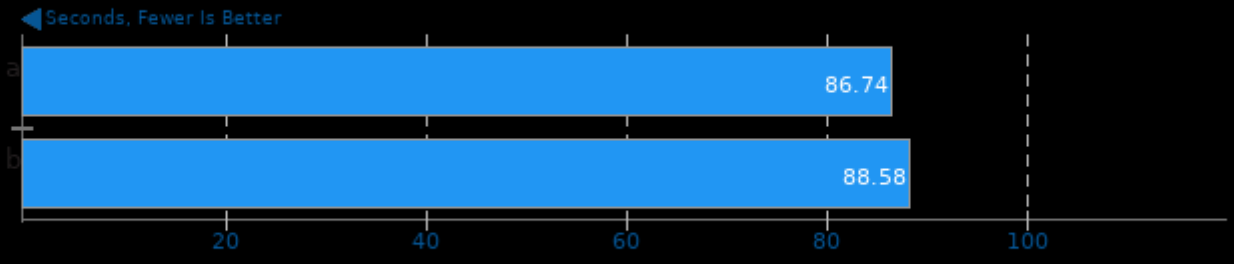
Encoder: libx265 - Scenario: Live



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

FFmpeg 5.1.2

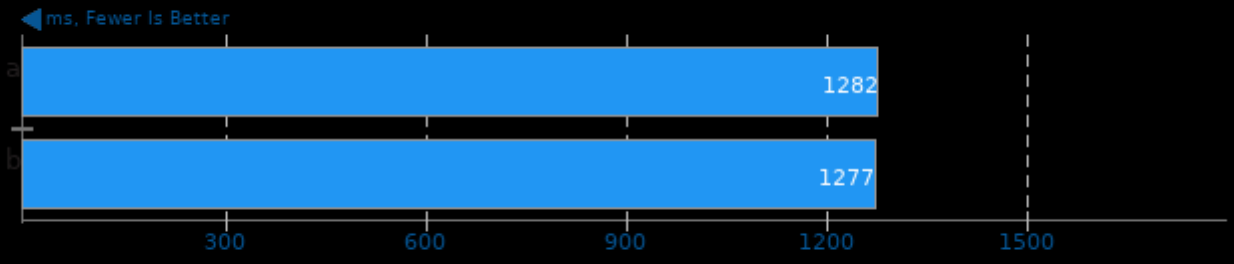
Encoder: libx265 - Scenario: Live



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

OSPRay Studio 0.11

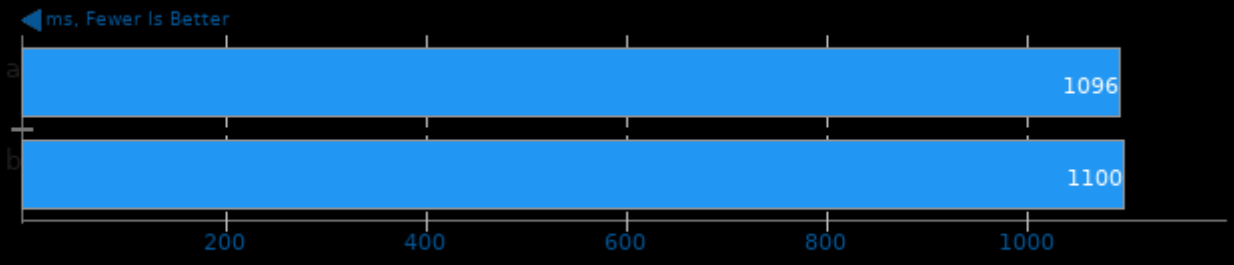
Camera: 3 - Resolution: 1080p - Samples Per Pixel: 1 - Renderer: Path Tracer



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

OSPRay Studio 0.11

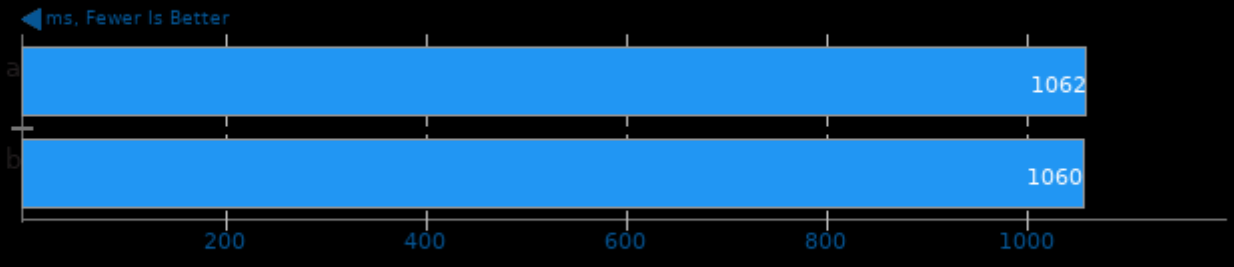
Camera: 2 - Resolution: 1080p - Samples Per Pixel: 1 - Renderer: Path Tracer



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

OSPRay Studio 0.11

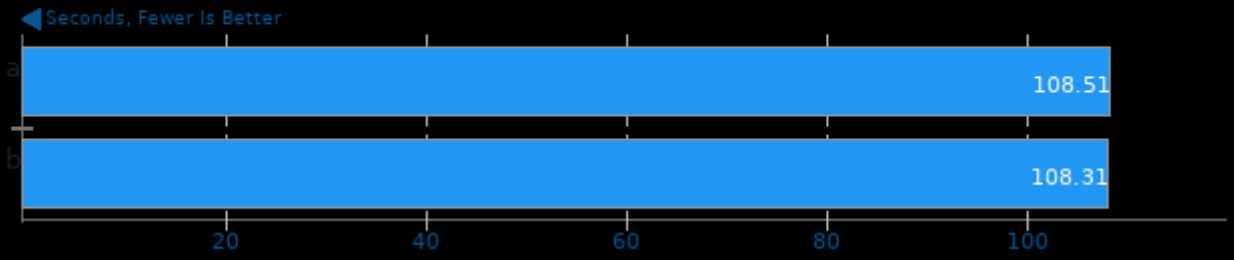
Camera: 1 - Resolution: 1080p - Samples Per Pixel: 1 - Renderer: Path Tracer



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

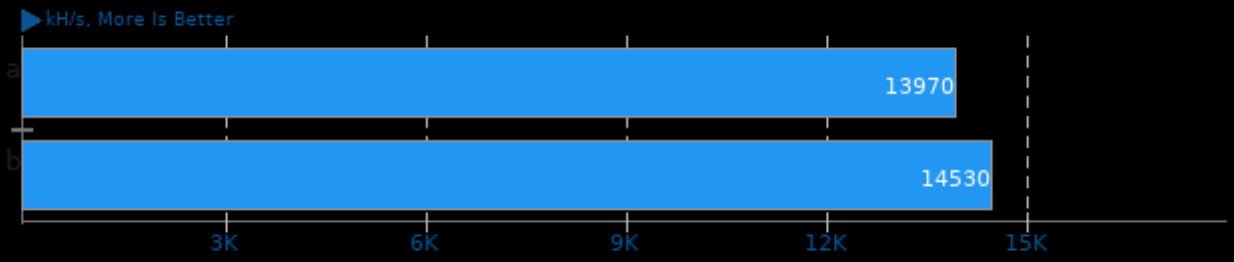
OpenRadioss 2022.10.13

Model: Bumper Beam



Cpuminer-Opt 3.20.3

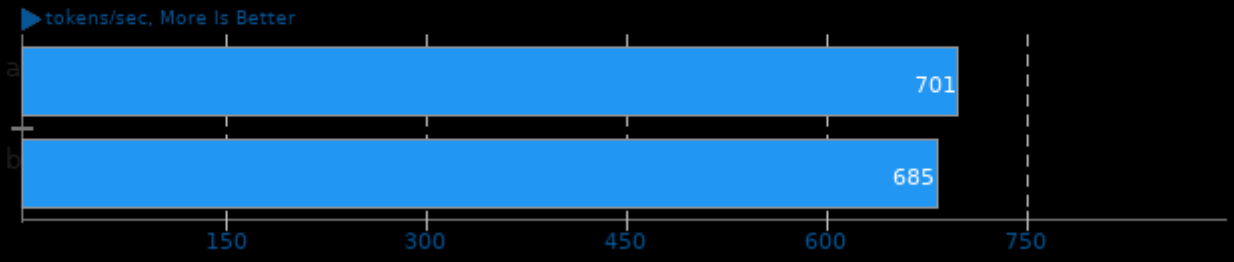
Algorithm: Garlicoin



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

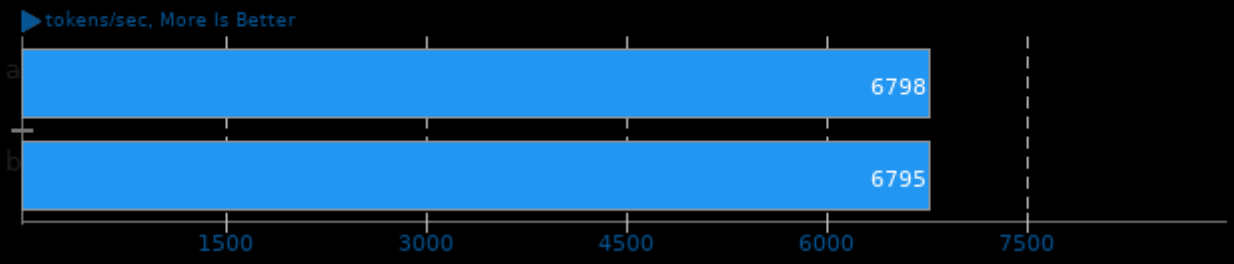
spaCy 3.4.1

Model: en_core_web_trf



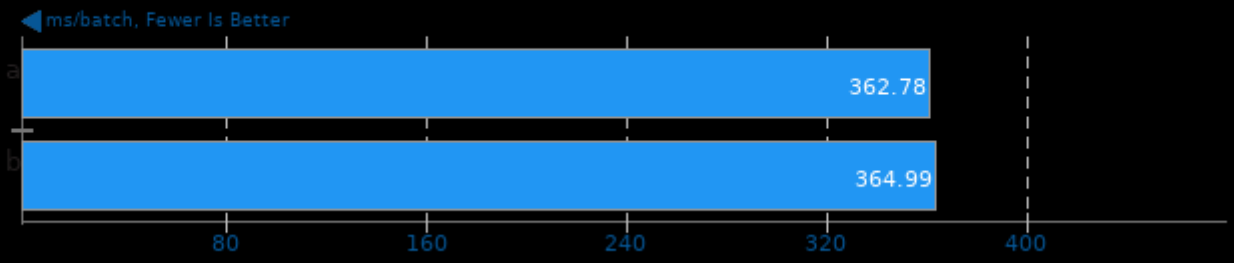
spaCy 3.4.1

Model: en_core_web_lg



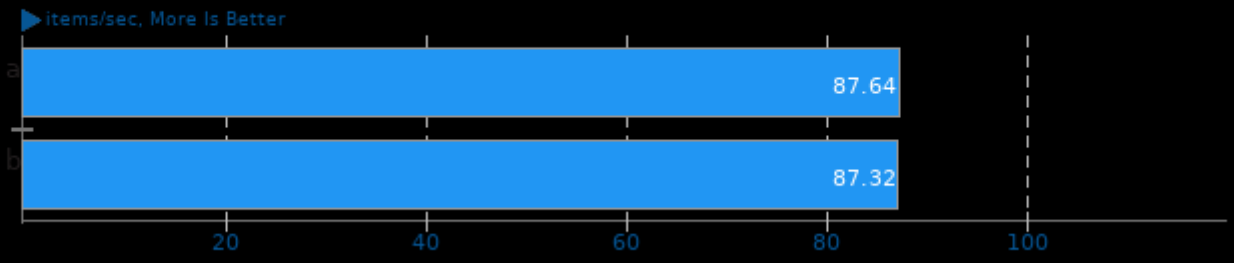
Neural Magic DeepSparse 1.1

Model: NLP Question Answering, BERT base uncased SQuaD 12layer Pruned90 - Scenario: Asynchronous Multi-Stream



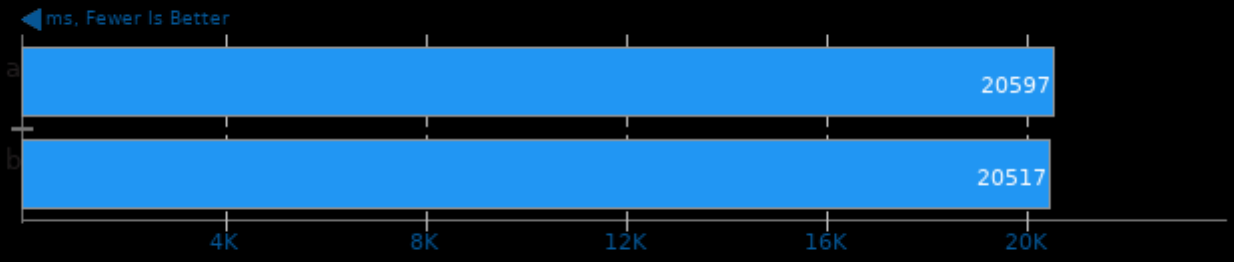
Neural Magic DeepSparse 1.1

Model: NLP Question Answering, BERT base uncased SQuaD 12layer Pruned90 - Scenario: Asynchronous Multi-Stream

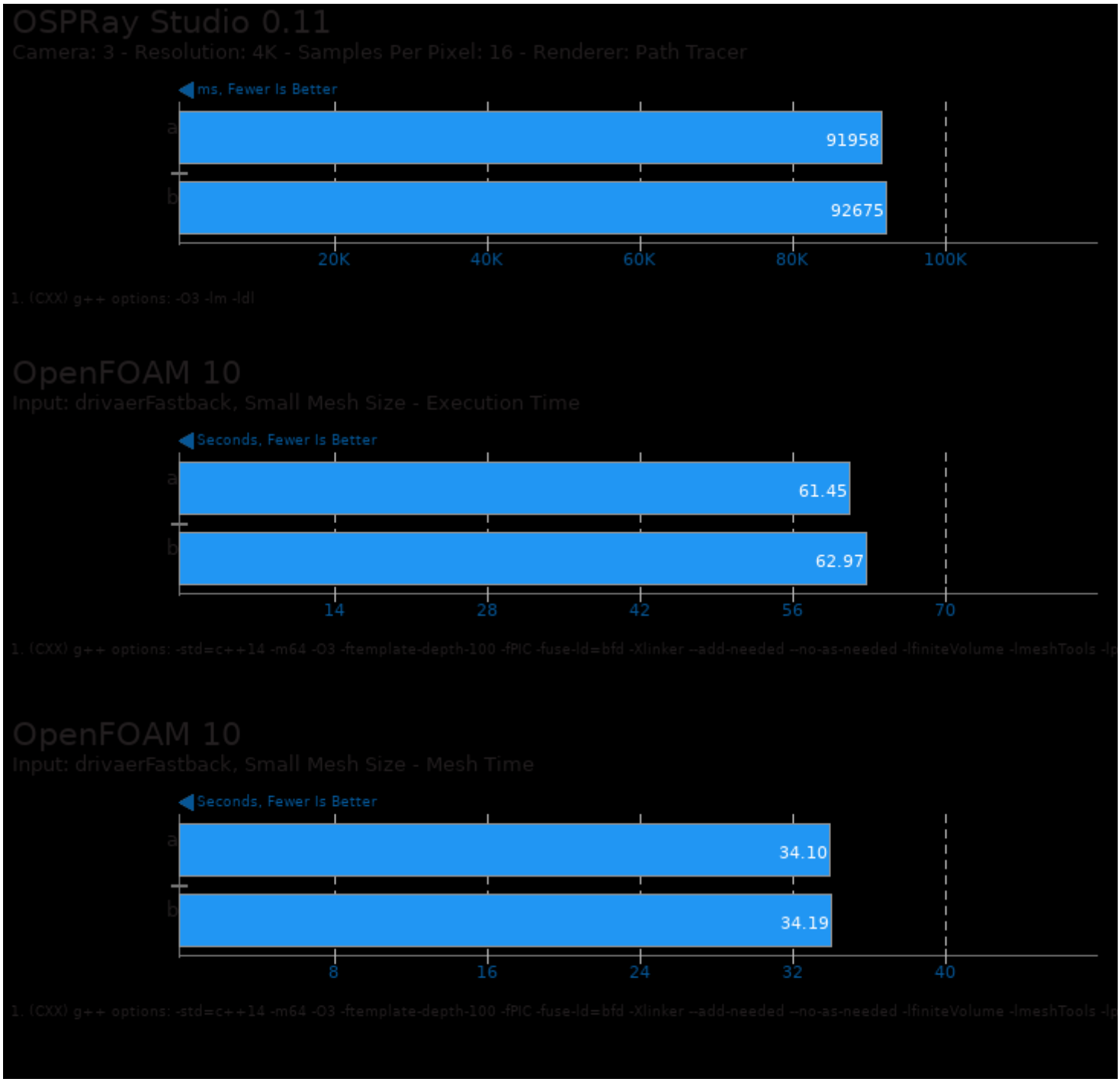


OSPRay Studio 0.11

Camera: 3 - Resolution: 1080p - Samples Per Pixel: 16 - Renderer: Path Tracer

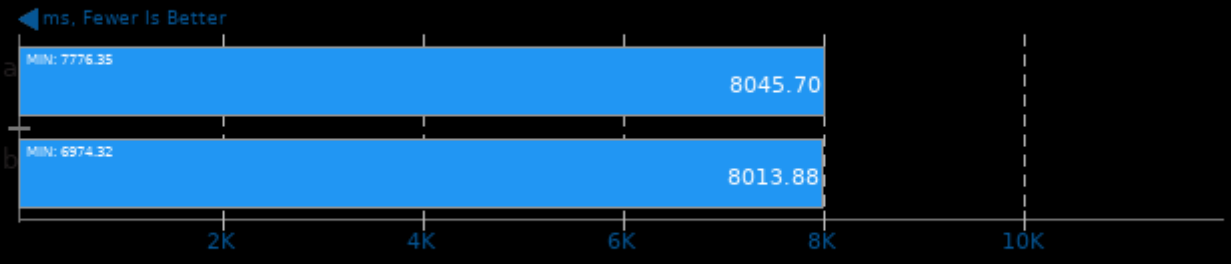


1. (CXX) g++ options: -O3 -lm -ldl


OSPRay Studio 0.11
Camera: 3 - Resolution: 4K - Samples Per Pixel: 16 - Renderer: Path Tracer
ms, Fewer Is Better
a
91958
b
92675
20K
40K
60K
80K
100K
1. (CXX) g++ options: -O3 -lm -ldl
OpenFOAM 10
Input: drivaerFastback, Small Mesh Size - Execution Time
Seconds, Fewer Is Better
a
61.45
b
62.97
14
28
42
56
70
1. (CXX) g++ options: -std=c++14 -m64 -O3 -ftemplate-depth-100 -fPIC -fuse-ld=bfd -Xlinker --add-needed --no-as-needed -lfiniteVolume -lmeshTools -lp
OpenFOAM 10
Input: drivaerFastback, Small Mesh Size - Mesh Time
Seconds, Fewer Is Better
a
34.10
b
34.19
8
16
24
32
40
1. (CXX) g++ options: -std=c++14 -m64 -O3 -ftemplate-depth-100 -fPIC -fuse-ld=bfd -Xlinker --add-needed --no-as-needed -lfiniteVolume -lmeshTools -lp

oneDNN 2.7

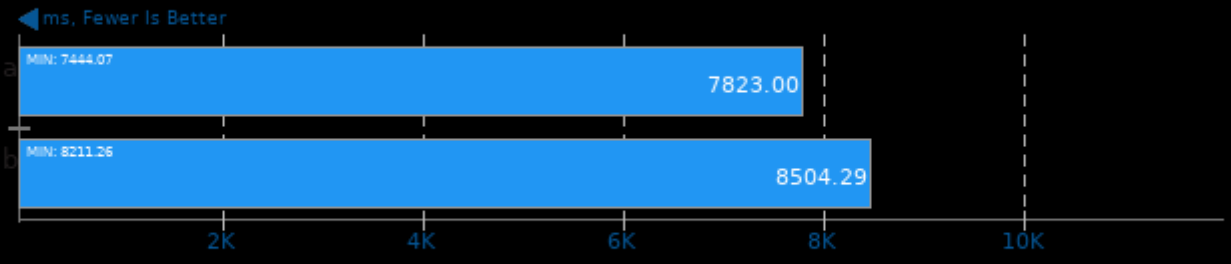
Harness: Recurrent Neural Network Training - Data Type: bf16bf16bf16 - Engine: CPU



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

oneDNN 2.7

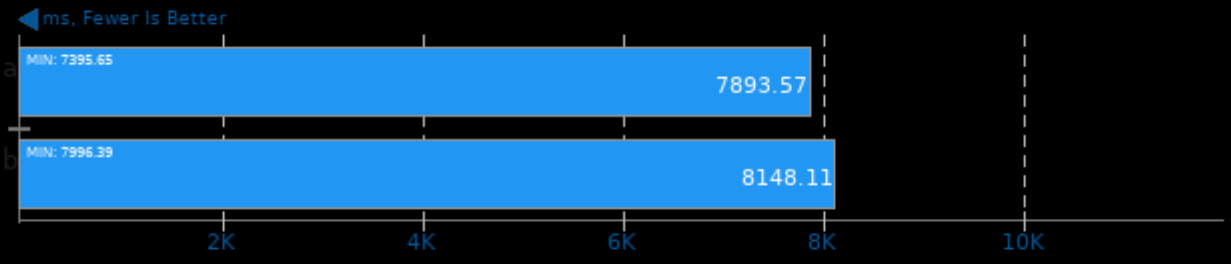
Harness: Recurrent Neural Network Training - Data Type: f32 - Engine: CPU



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

oneDNN 2.7

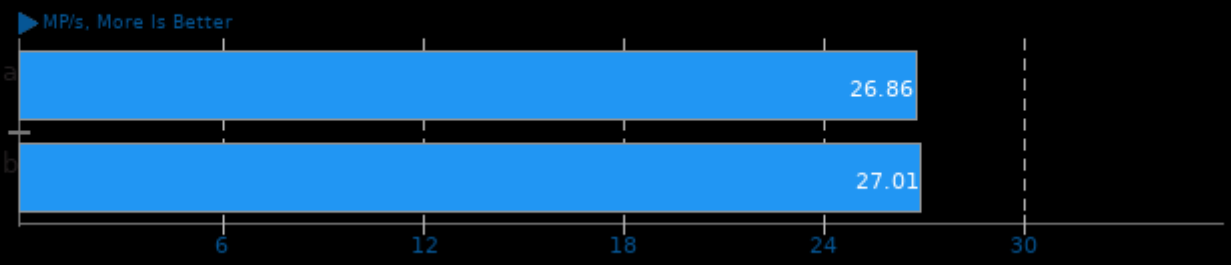
Harness: Recurrent Neural Network Training - Data Type: u8s8f32 - Engine: CPU



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

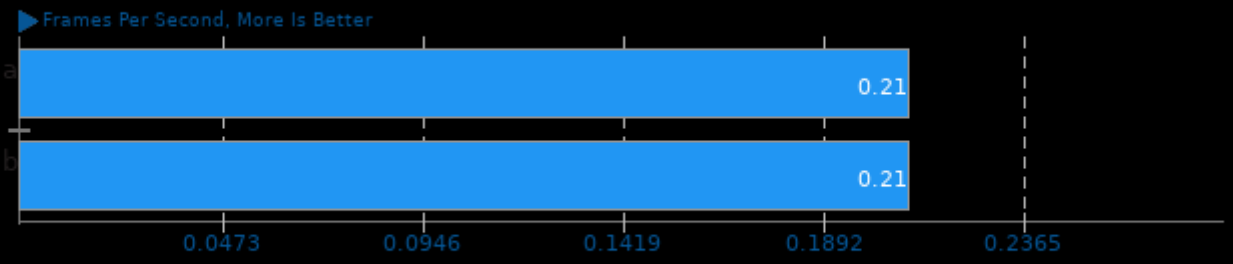
JPEG XL Decoding libjxl 0.7

CPU Threads: 1



AOM AV1 3.5

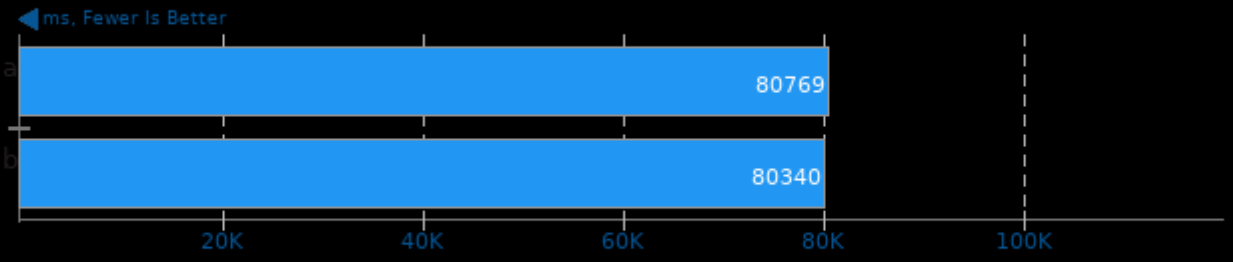
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

OSPRay Studio 0.11

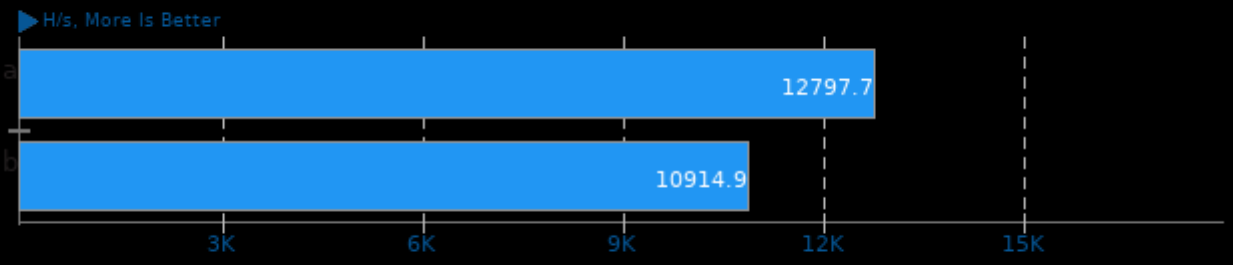
Camera: 2 - Resolution: 4K - Samples Per Pixel: 16 - Renderer: Path Tracer



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

Xmrig 6.18.1

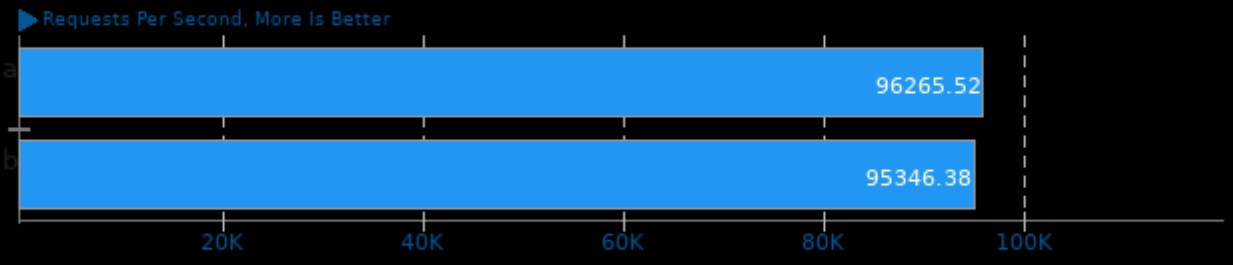
Variant: Monero - Hash Count: 1M



1. (CXX) g++ options: -fexceptions -fno-rtti -maes -O3 -Ofast -static-libgcc -static-libstdc++ -rdynamic -lssl -lcrypto -luv -lpthread -lrt -ldl -lhwloc

nginx 1.23.2

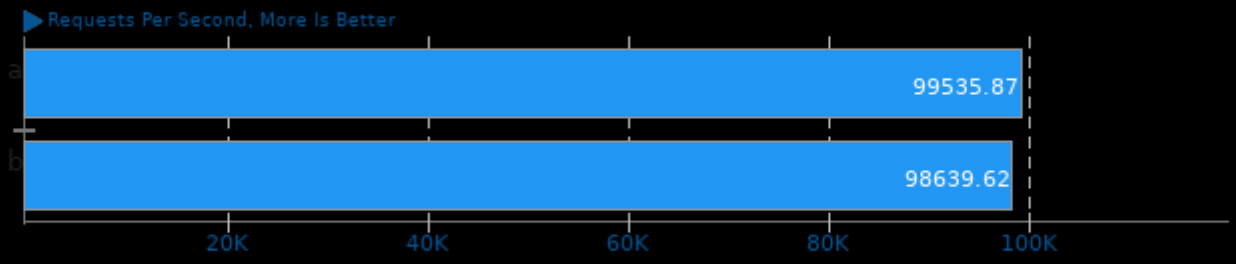
Connections: 1000



1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2

nginx 1.23.2

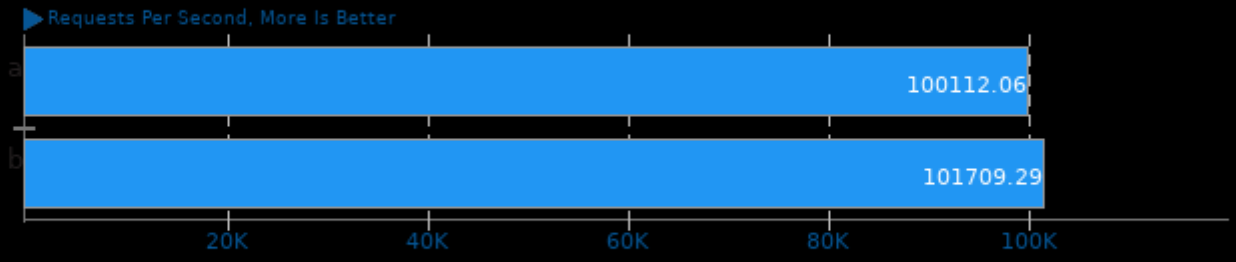
Connections: 500



1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2

nginx 1.23.2

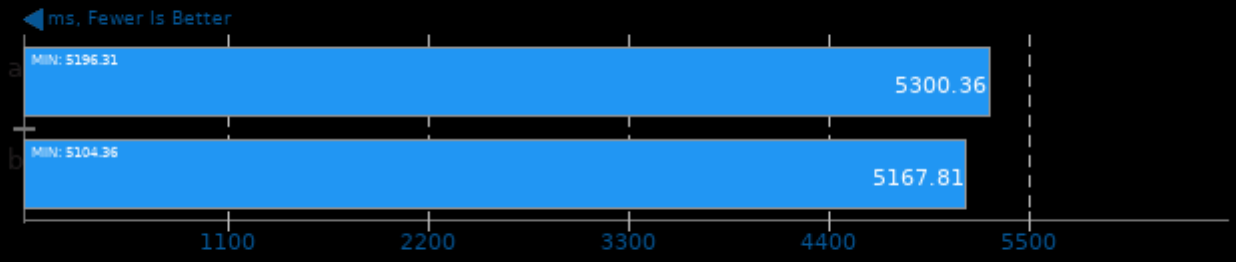
Connections: 200



1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2

oneDNN 2.7

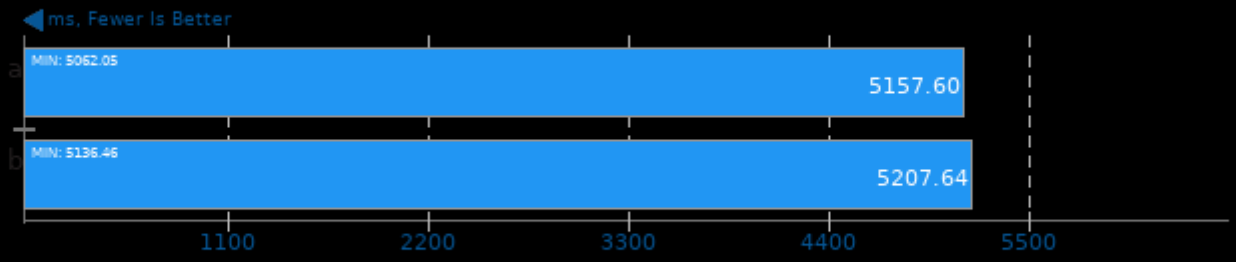
Harness: Recurrent Neural Network Inference - Data Type: f32 - Engine: CPU



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

oneDNN 2.7

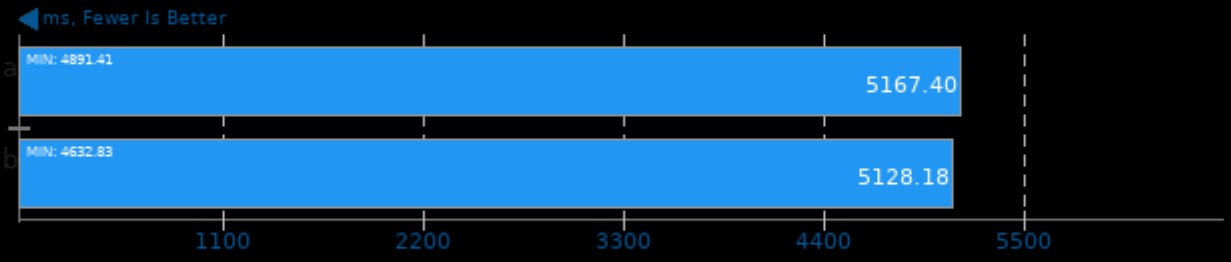
Harness: Recurrent Neural Network Inference - Data Type: bf16bf16bf16 - Engine: CPU



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

oneDNN 2.7

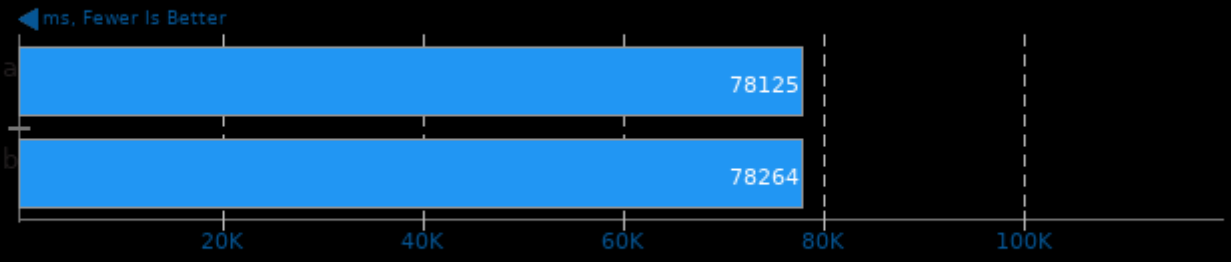
Harness: Recurrent Neural Network Inference - Data Type: u8s8f32 - Engine: CPU



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

OSPRay Studio 0.11

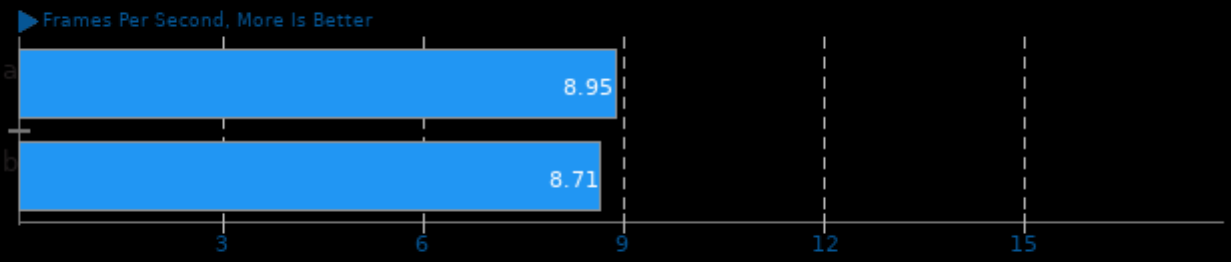
Camera: 1 - Resolution: 4K - Samples Per Pixel: 16 - Renderer: Path Tracer



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

AOM AV1 3.5

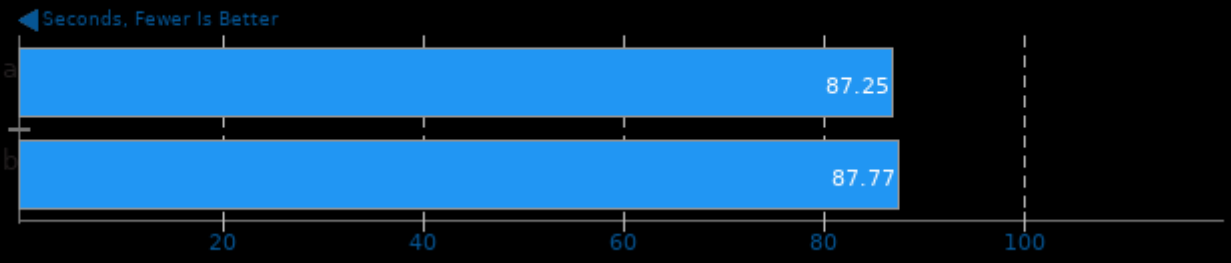
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

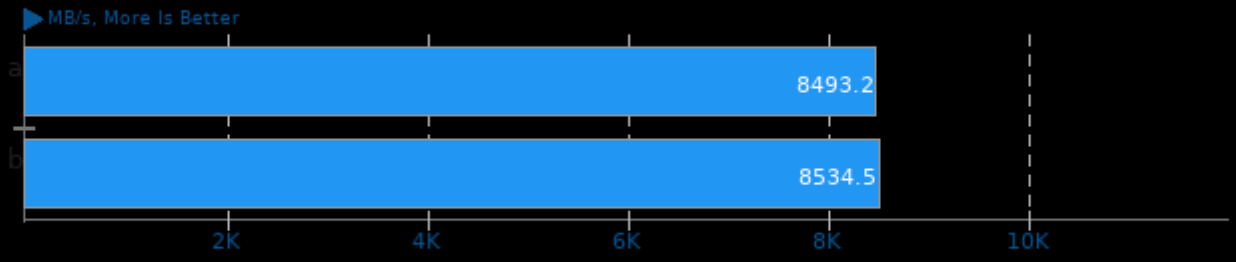
Blender 3.3

Blend File: Classroom - Compute: CPU-Only



C-Blosc 2.3

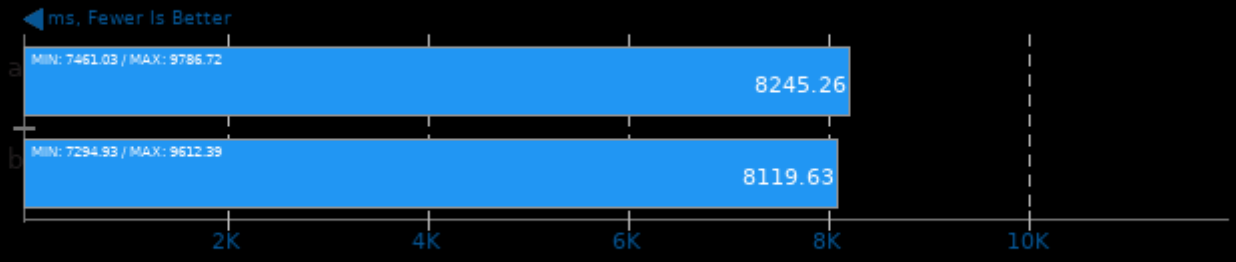
Test: blosclz shuffle



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

OpenVINO 2022.2.dev

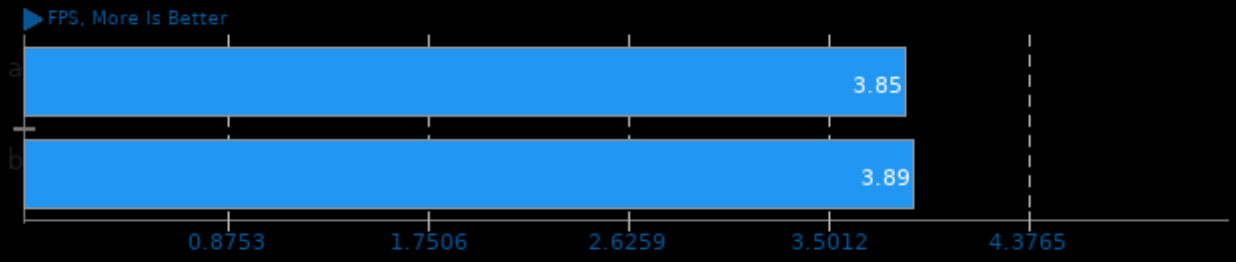
Model: Person Detection FP32 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

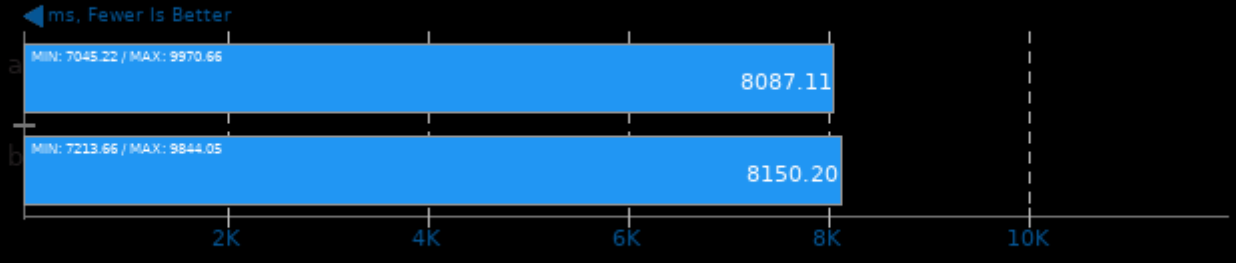
Model: Person Detection FP32 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

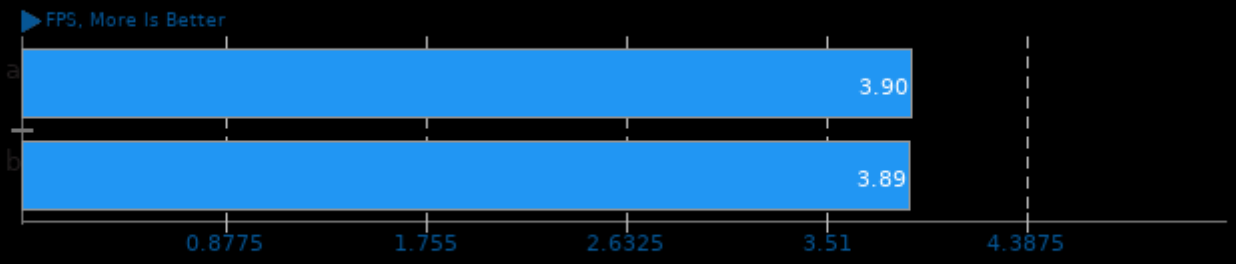
Model: Person Detection FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

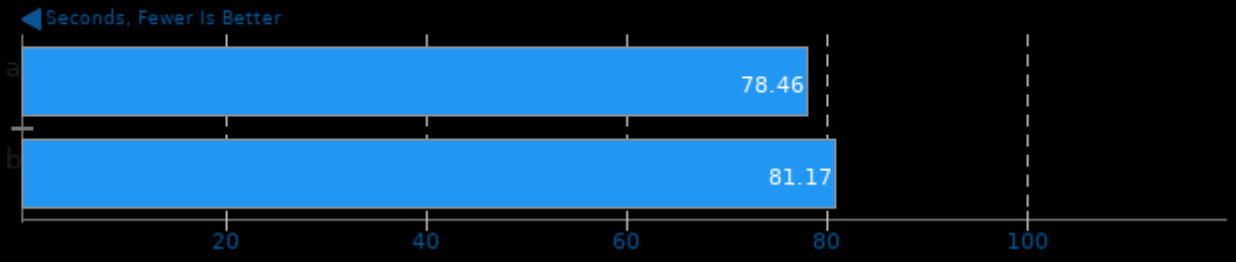
Model: Person Detection FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

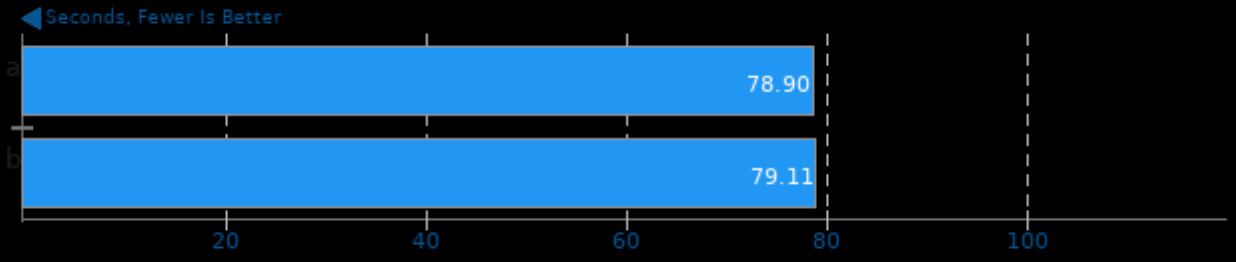
EnCodec 0.1.1

Target Bandwidth: 24 kbps



libavif avifenc 0.11

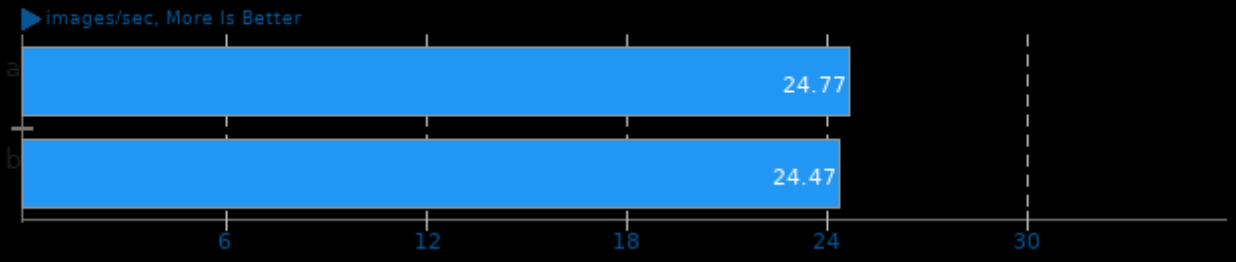
Encoder Speed: 2

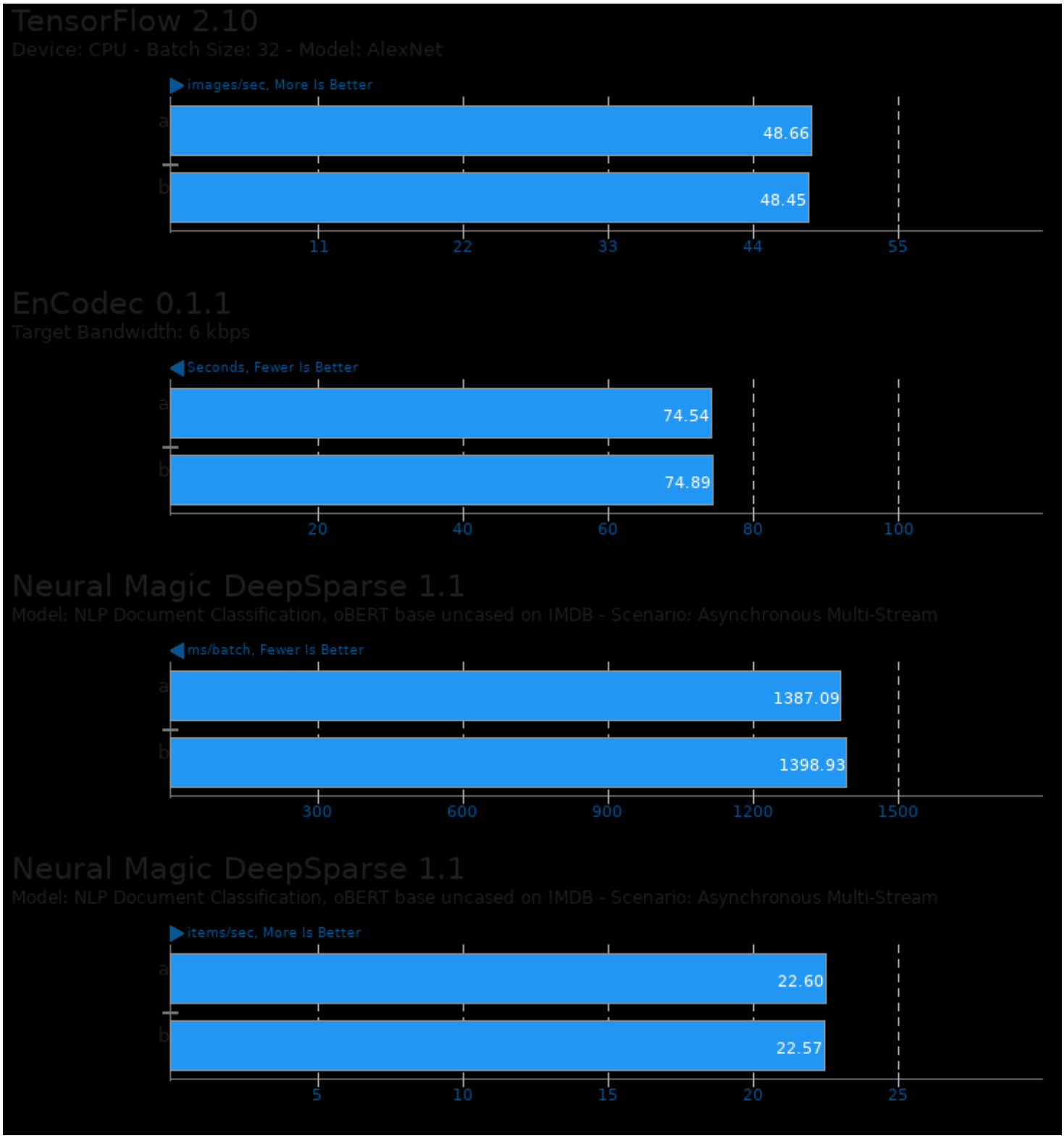


1. (CXX) g++ options: -O3 -fPIC -lm

TensorFlow 2.10

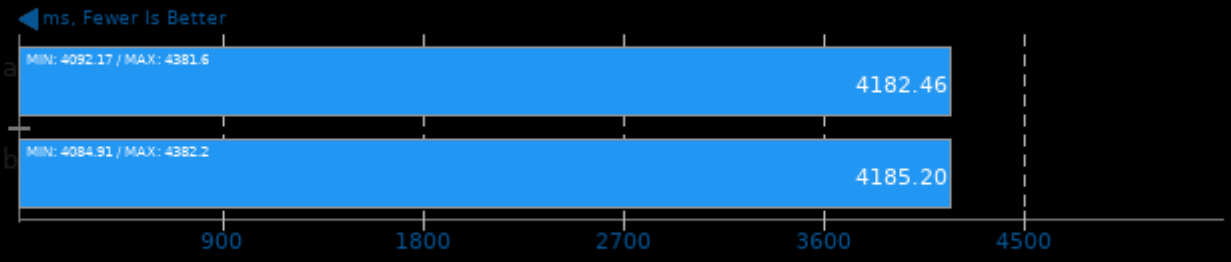
Device: CPU - Batch Size: 16 - Model: GoogLeNet




TensorFlow 2.10
Device: CPU - Batch Size: 32 - Model: AlexNet
images/sec, More Is Better
a
48.66
b
48.45
11
22
33
44
55
EnCodec 0.1.1
Target Bandwidth: 6 kbps
Seconds, Fewer Is Better
a
74.54
b
74.89
20
40
60
80
100
Neural Magic DeepSparse 1.1
Model: NLP Document Classification, oBERT base uncased on IMDB - Scenario: Asynchronous Multi-Stream
ms/batch, Fewer Is Better
a
1387.09
b
1398.93
300
600
900
1200
1500
Neural Magic DeepSparse 1.1
Model: NLP Document Classification, oBERT base uncased on IMDB - Scenario: Asynchronous Multi-Stream
items/sec, More Is Better
a
22.60
b
22.57
5
10
15
20
25

OpenVINO 2022.2.dev

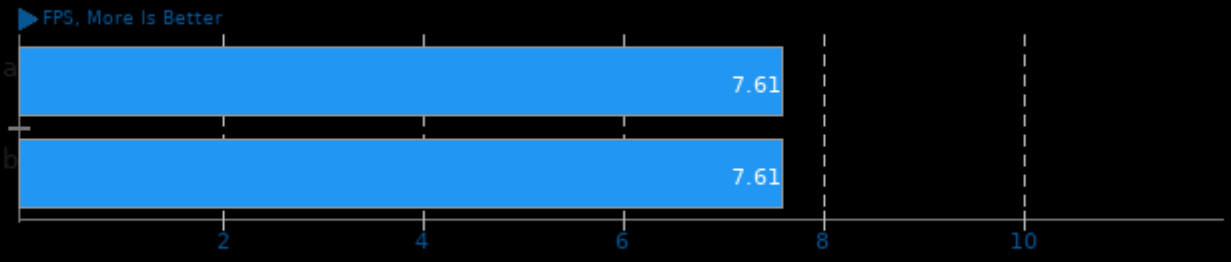
Model: Face Detection FP16-INT8 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

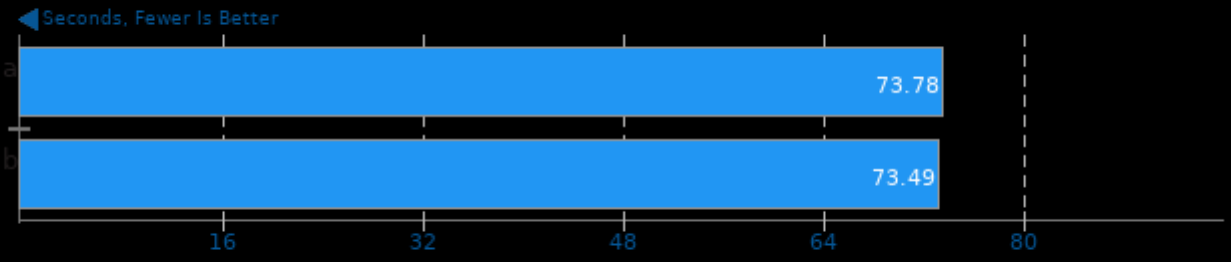
Model: Face Detection FP16-INT8 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

Timed Wasmer Compilation 2.3

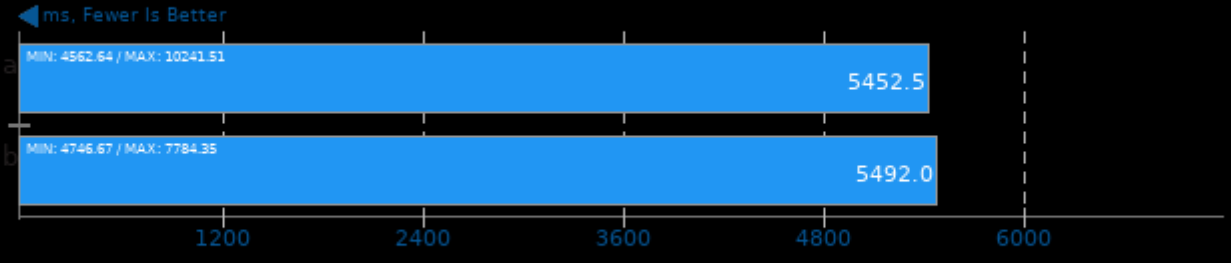
Time To Compile



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

OpenVINO 2022.2.dev

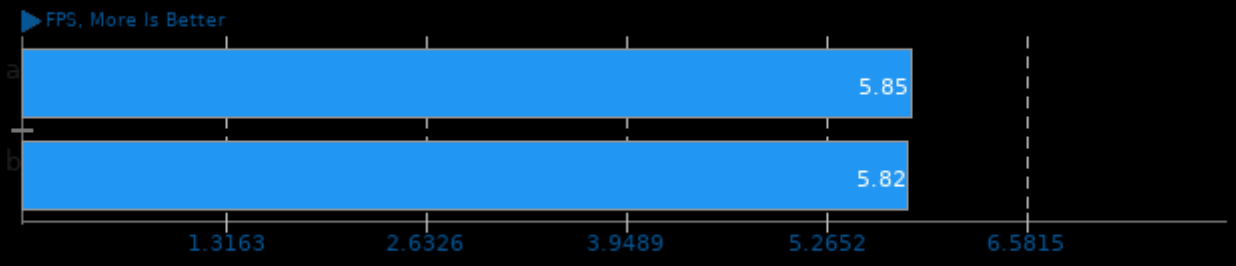
Model: Face Detection FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

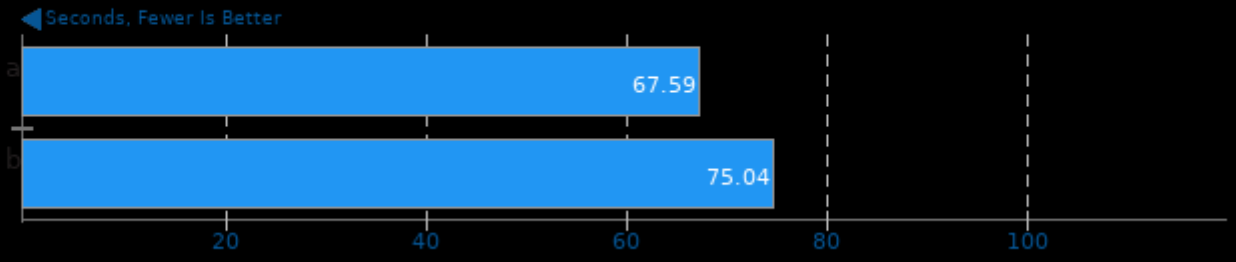
Model: Face Detection FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

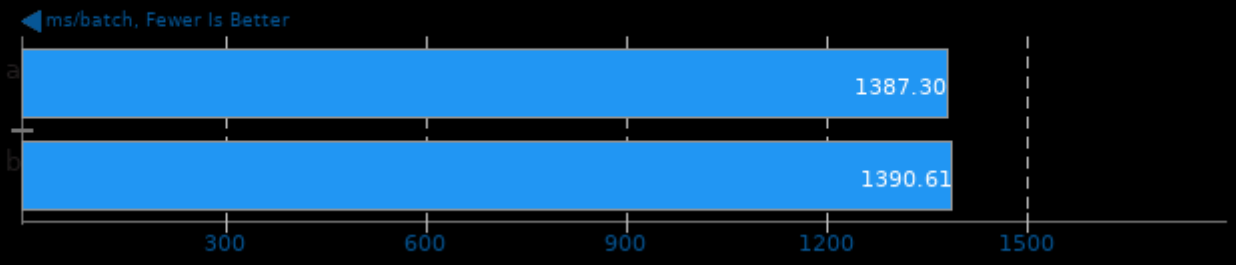
EnCodec 0.1.1

Target Bandwidth: 1.5 kbps



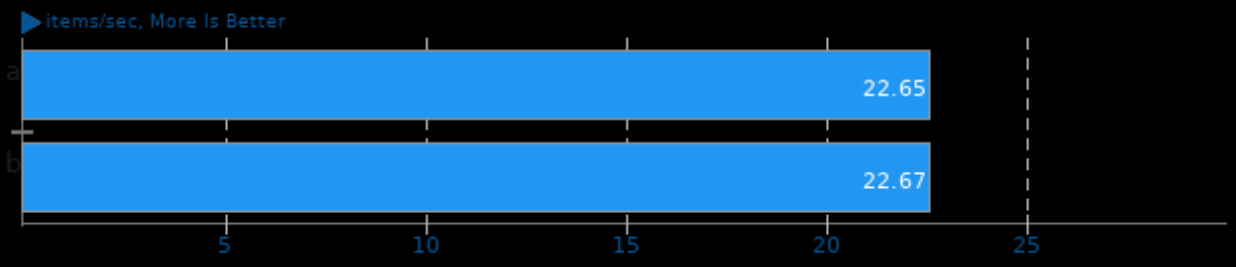
Neural Magic DeepSparse 1.1

Model: NLP Token Classification, BERT base uncased conll2003 - Scenario: Asynchronous Multi-Stream



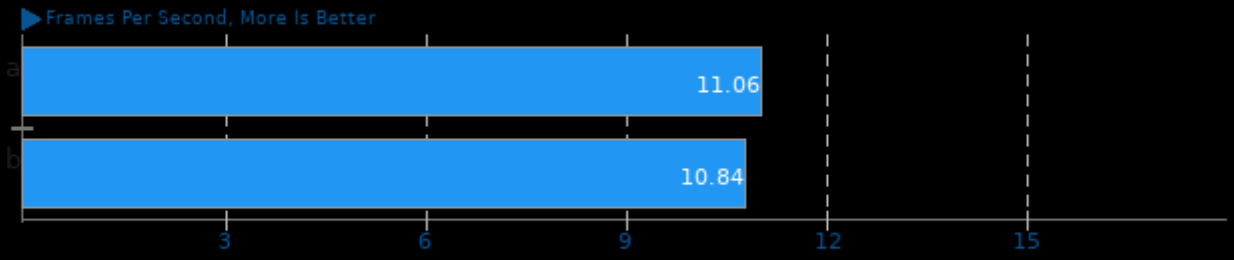
Neural Magic DeepSparse 1.1

Model: NLP Token Classification, BERT base uncased conll2003 - Scenario: Asynchronous Multi-Stream



AOM AV1 3.5

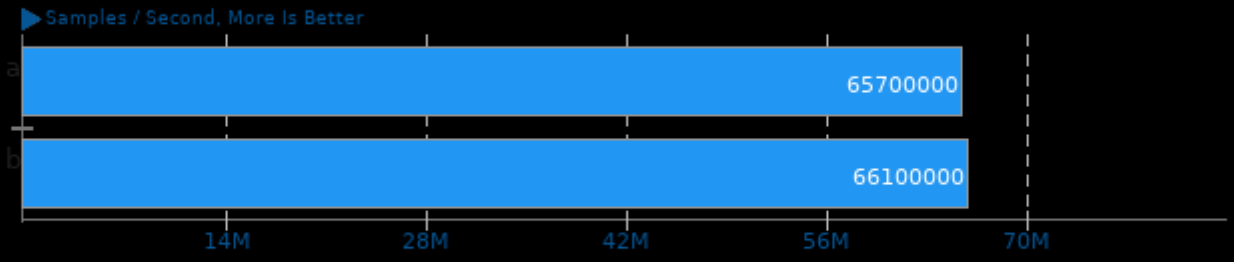
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

srsRAN 22.04.1

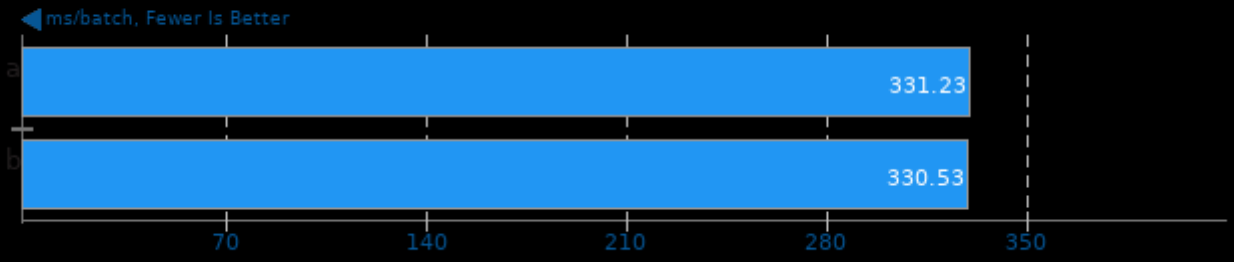
Test: OFDM_Test



1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

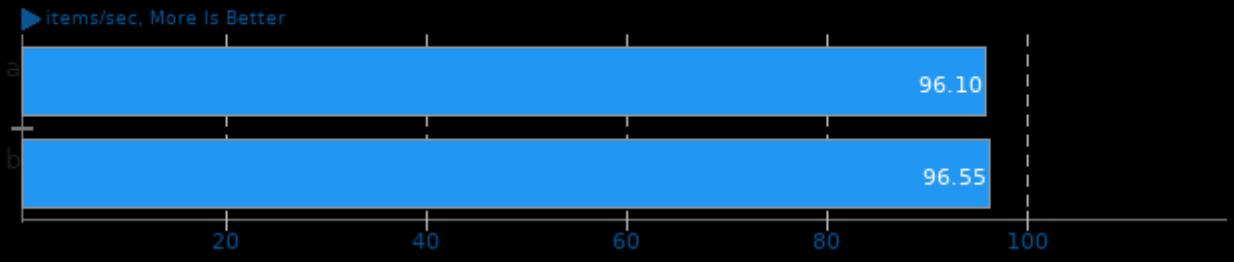
Neural Magic DeepSparse 1.1

Model: NLP Text Classification, BERT base uncased SST2 - Scenario: Asynchronous Multi-Stream



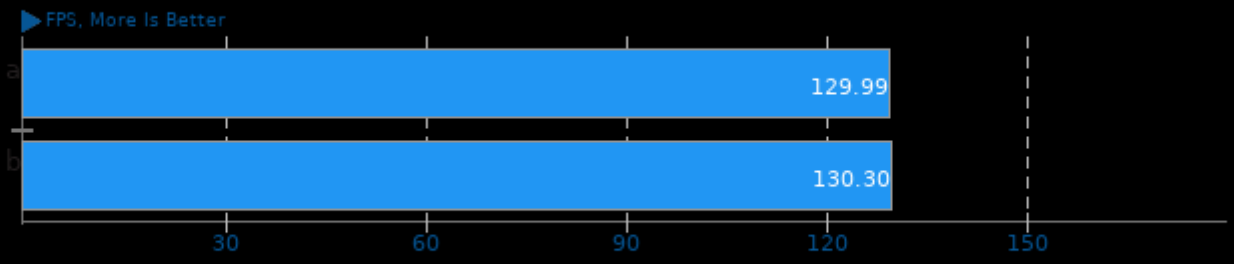
Neural Magic DeepSparse 1.1

Model: NLP Text Classification, BERT base uncased SST2 - Scenario: Asynchronous Multi-Stream



FFmpeg 5.1.2

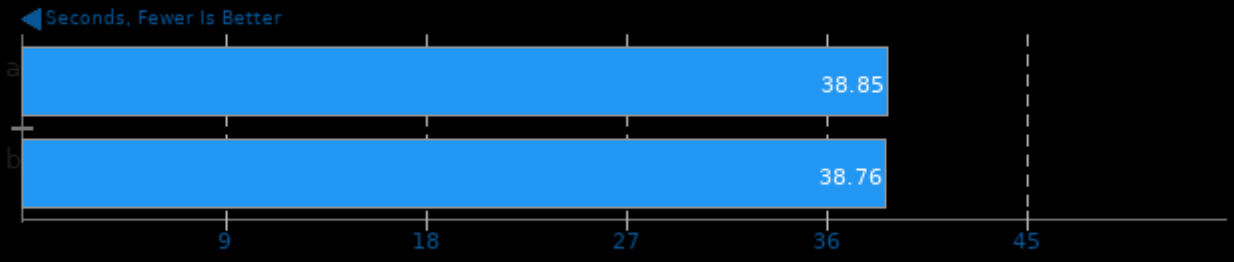
Encoder: libx264 - Scenario: Live



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

FFmpeg 5.1.2

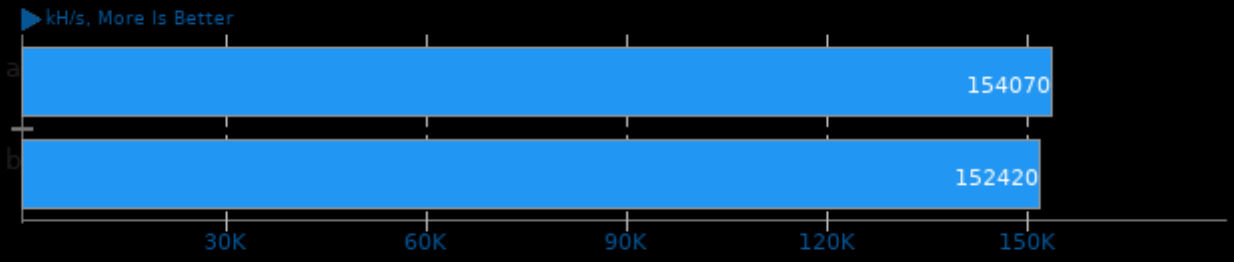
Encoder: libx264 - Scenario: Live



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

Cpuminer-Opt 3.20.3

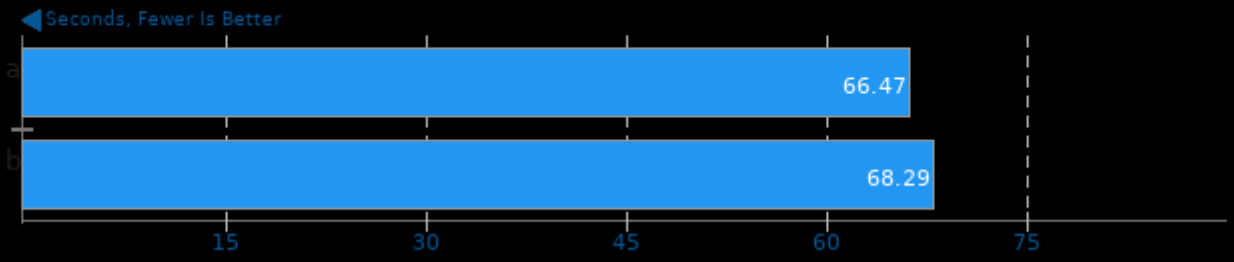
Algorithm: Myriad-Groestl



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

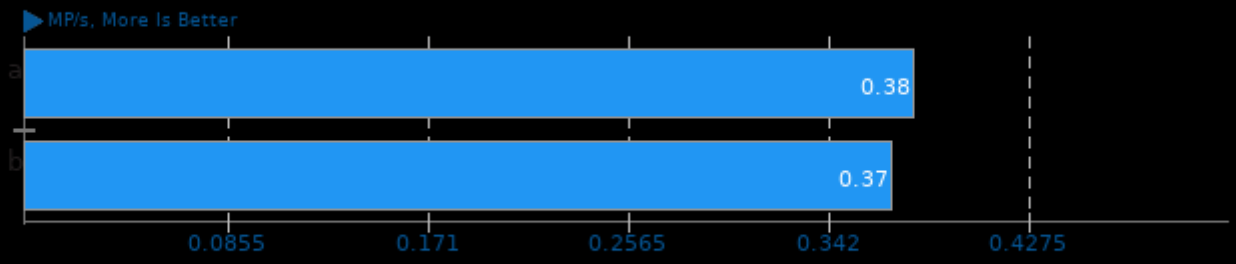
EnCodec 0.1.1

Target Bandwidth: 3 kbps



WebP2 Image Encode 20220823

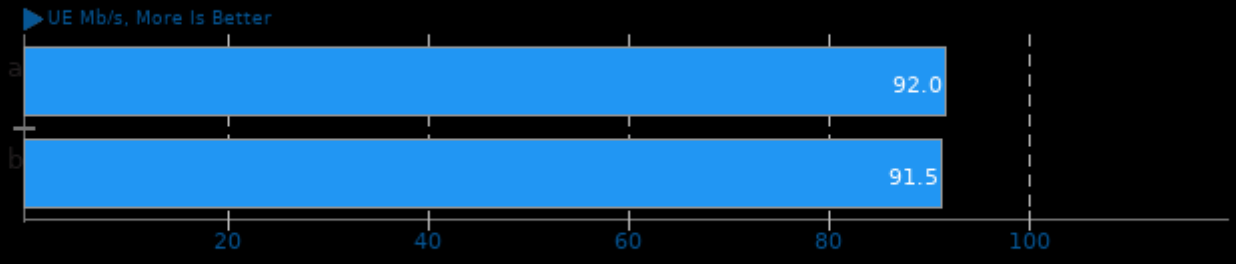
Encode Settings: Quality 75, Compression Effort 7



1. (CXX) g++ options: -msse4.2 -fno-rtti -O3 -ldl

srsRAN 22.04.1

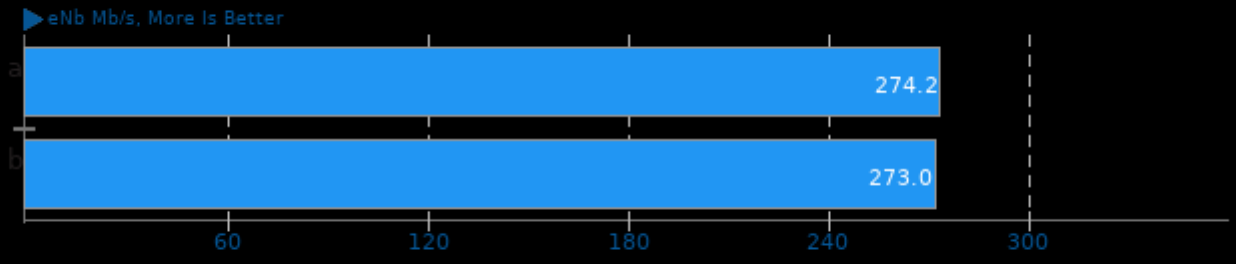
Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM



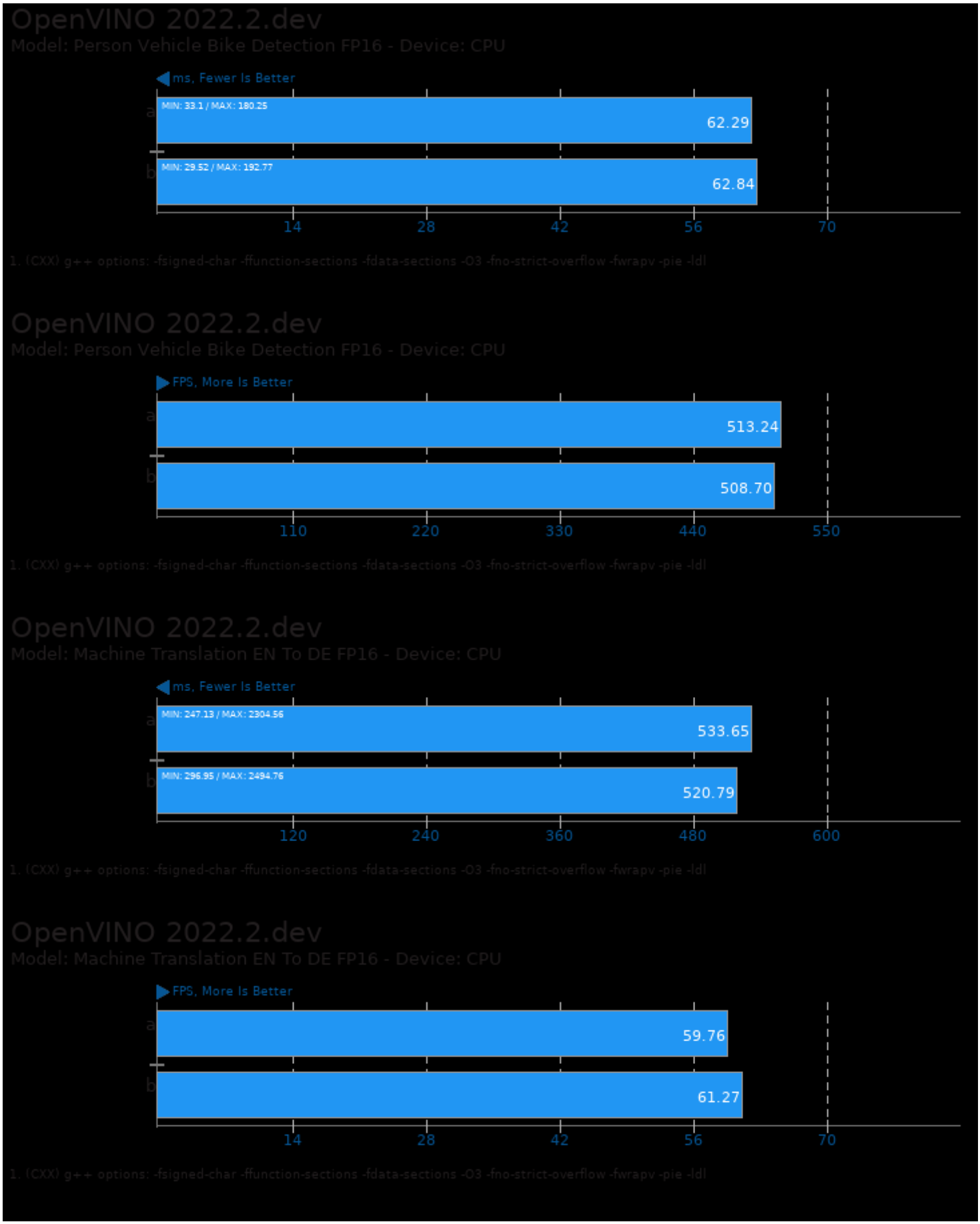
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 22.04.1

Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM

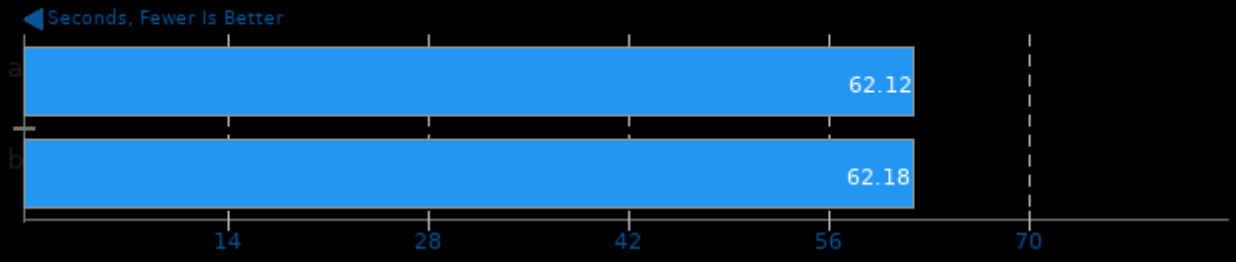


1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno


OpenVINO 2022.2.dev
Model: Person Vehicle Bike Detection FP16 - Device: CPU
ms, Fewer Is Better
a
MIN: 33.1 / MAX: 180.25
62.29
b
MIN: 29.52 / MAX: 192.77
62.84
14
28
42
56
70
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Person Vehicle Bike Detection FP16 - Device: CPU
FPS, More Is Better
a
513.24
b
508.70
110
220
330
440
550
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Machine Translation EN To DE FP16 - Device: CPU
ms, Fewer Is Better
a
MIN: 247.13 / MAX: 2304.56
533.65
b
MIN: 296.95 / MAX: 2494.76
520.79
120
240
360
480
600
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Machine Translation EN To DE FP16 - Device: CPU
FPS, More Is Better
a
59.76
b
61.27
14
28
42
56
70
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

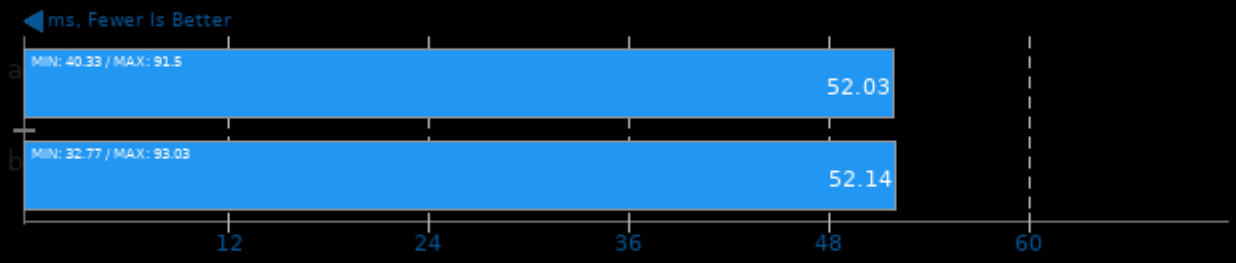
Timed PHP Compilation 8.1.9

Time To Compile



OpenVINO 2022.2.dev

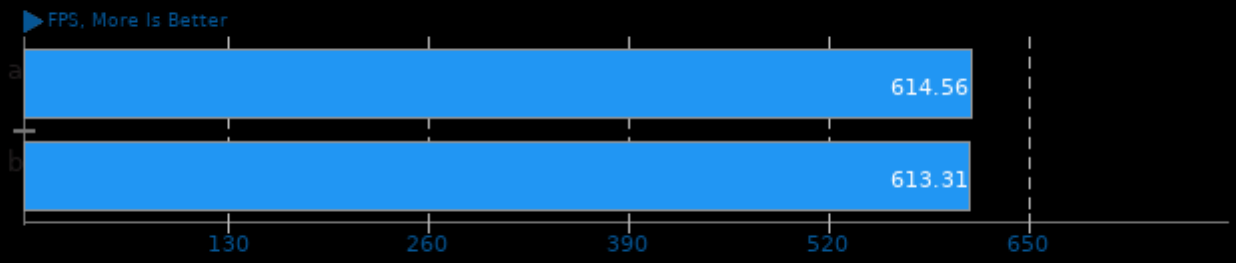
Model: Vehicle Detection FP16-INT8 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

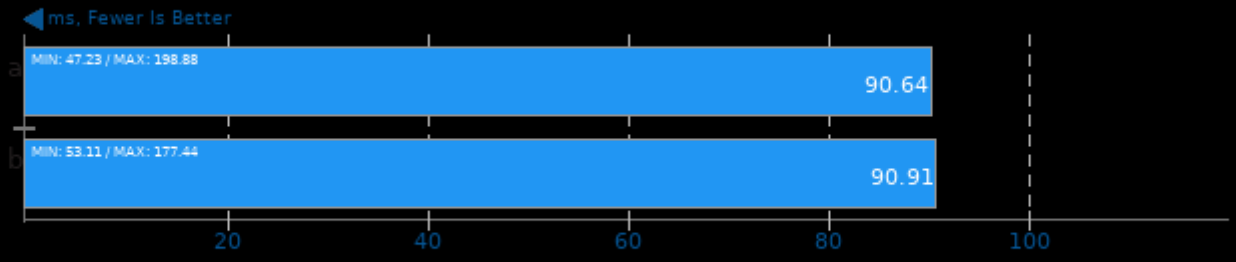
Model: Vehicle Detection FP16-INT8 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

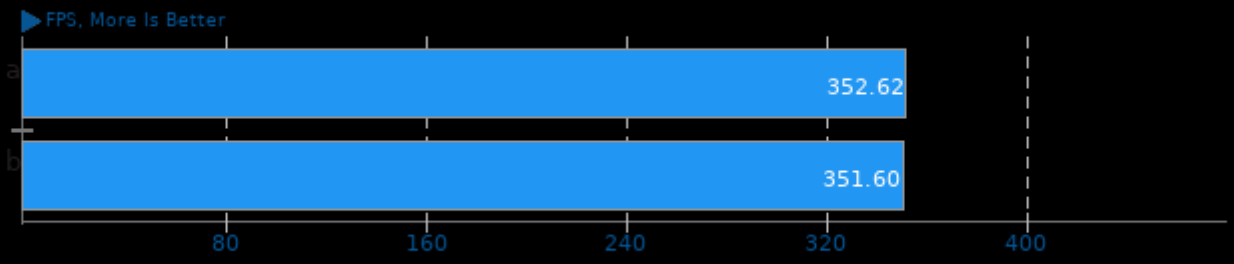
Model: Vehicle Detection FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

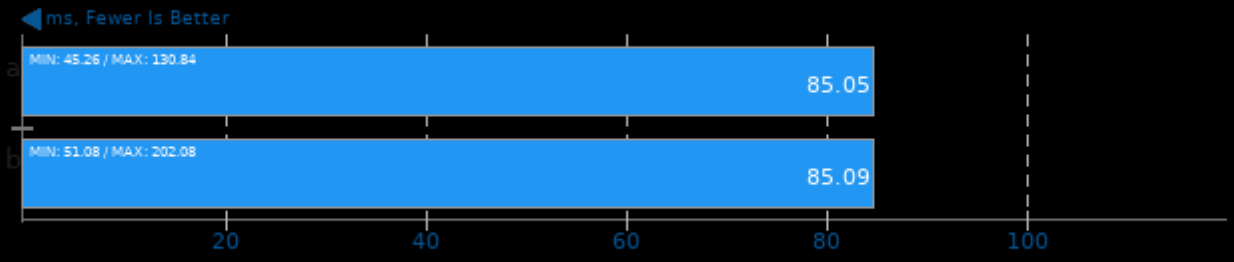
Model: Vehicle Detection FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

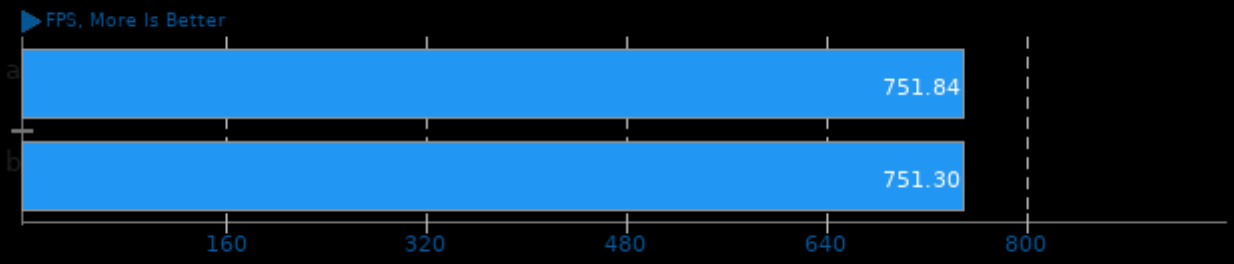
Model: Weld Porosity Detection FP16-INT8 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

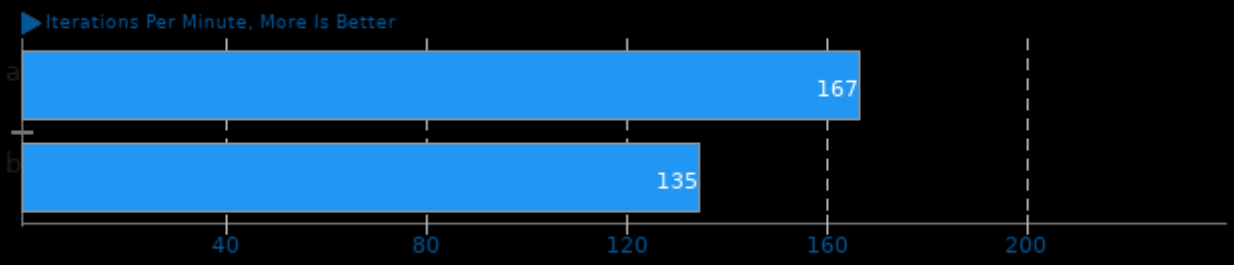
Model: Weld Porosity Detection FP16-INT8 - Device: CPU



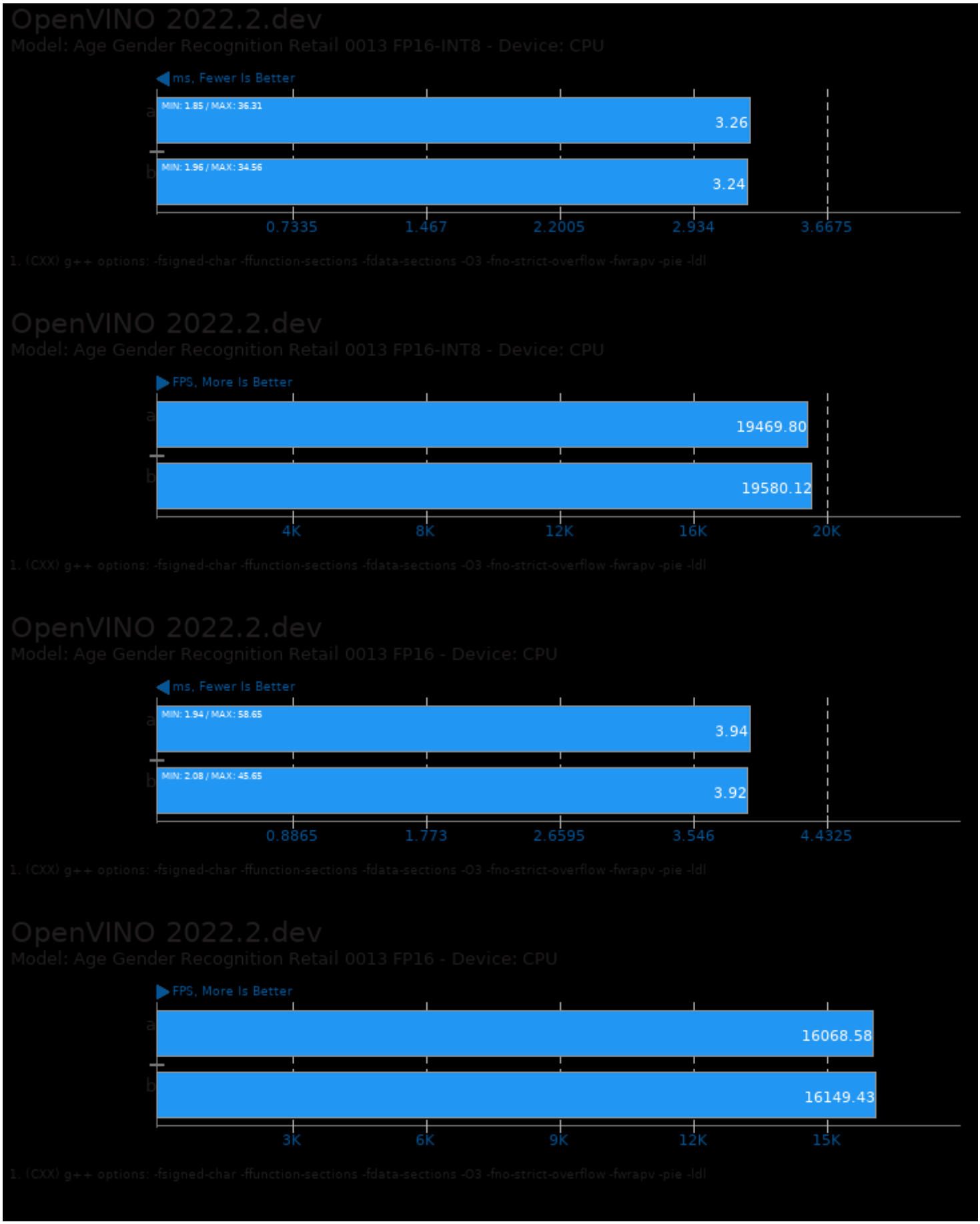
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

GraphicsMagick 1.3.38

Operation: Resizing

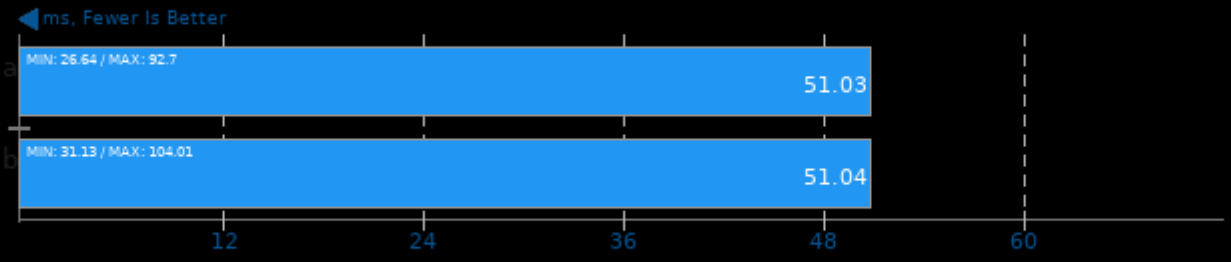


1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread


OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16-INT8 - Device: CPU
ms, Fewer Is Better
a
MIN: 1.85 / MAX: 36.31
3.26
b
MIN: 1.96 / MAX: 34.56
3.24
0.7335
1.467
2.2005
2.934
3.6675
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16-INT8 - Device: CPU
FPS, More Is Better
a
19469.80
b
19580.12
4K
8K
12K
16K
20K
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU
ms, Fewer Is Better
a
MIN: 1.94 / MAX: 58.65
3.94
b
MIN: 2.08 / MAX: 45.65
3.92
0.8865
1.773
2.6595
3.546
4.4325
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU
FPS, More Is Better
a
16068.58
b
16149.43
3K
6K
9K
12K
15K
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

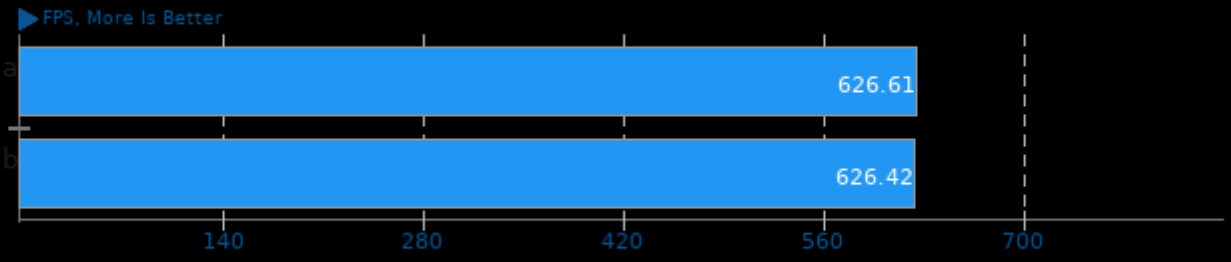
Model: Weld Porosity Detection FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

OpenVINO 2022.2.dev

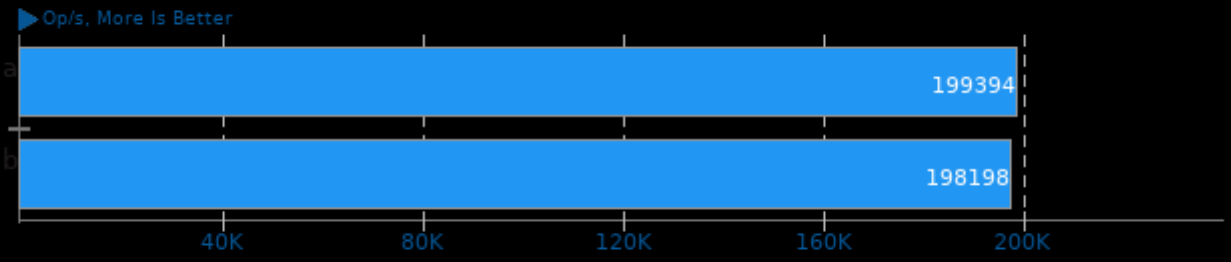
Model: Weld Porosity Detection FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

Facebook RocksDB 7.5.3

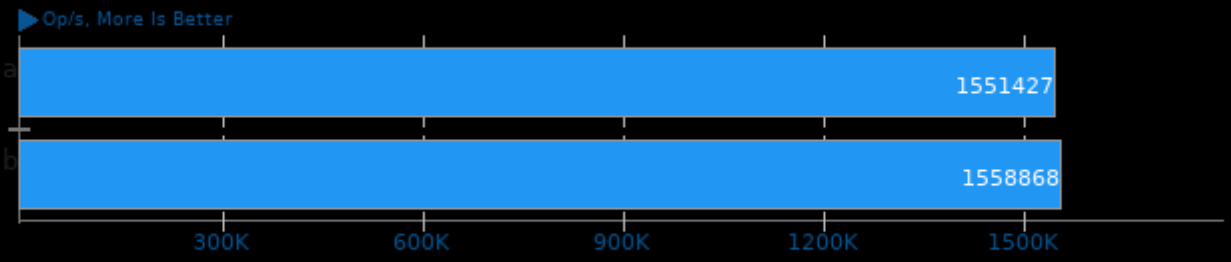
Test: Update Random



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

Facebook RocksDB 7.5.3

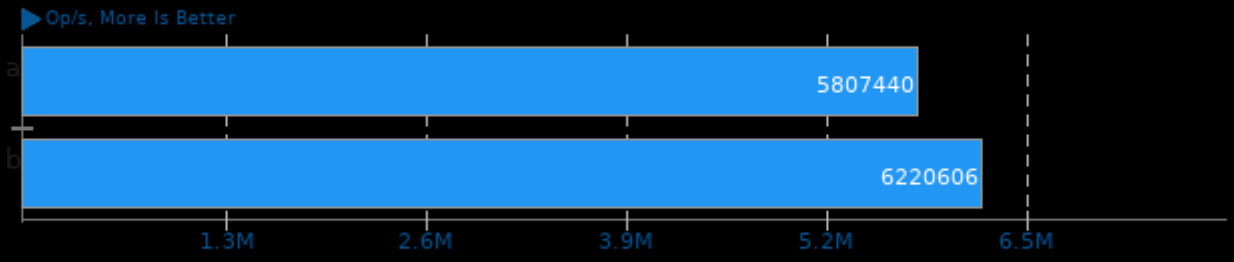
Test: Read Random Write Random



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

Facebook RocksDB 7.5.3

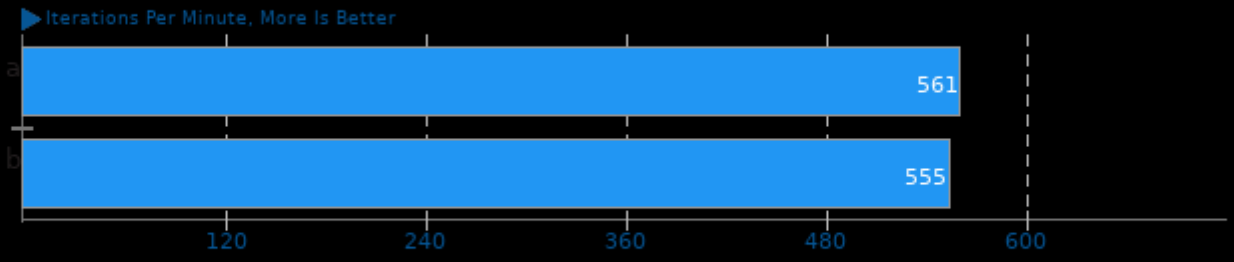
Test: Read While Writing



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

GraphicsMagick 1.3.38

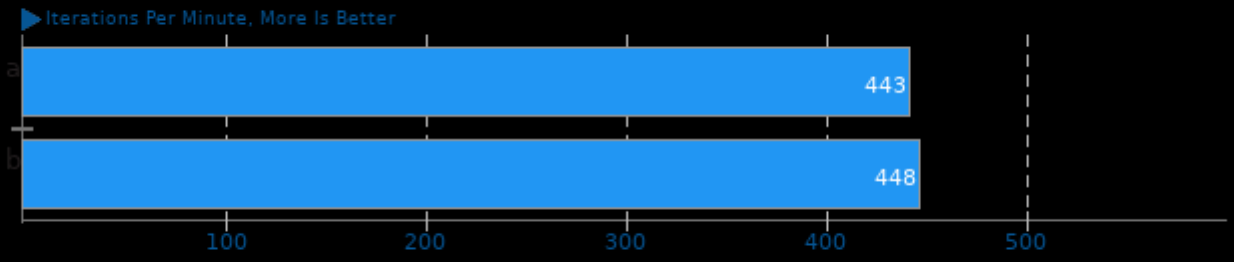
Operation: Sharpen



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

GraphicsMagick 1.3.38

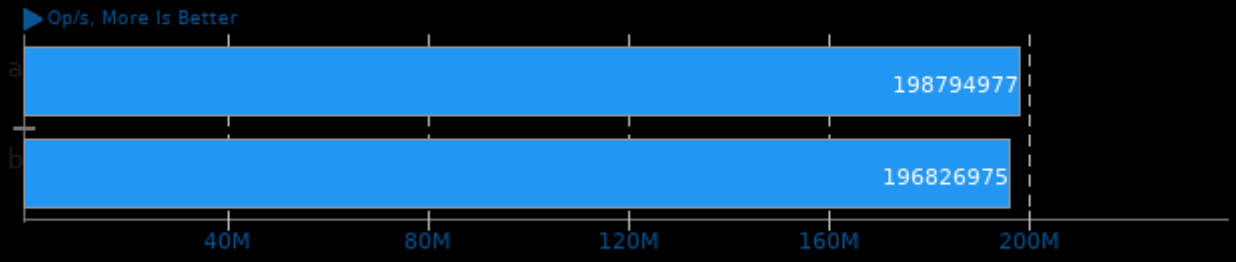
Operation: Rotate



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

Facebook RocksDB 7.5.3

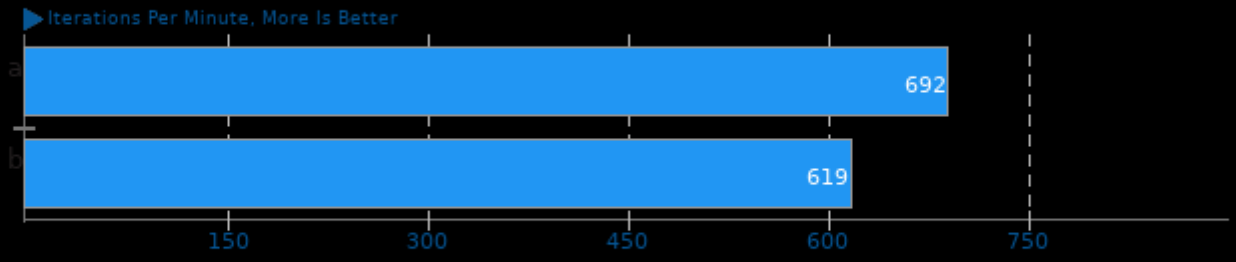
Test: Random Read



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

GraphicsMagick 1.3.38

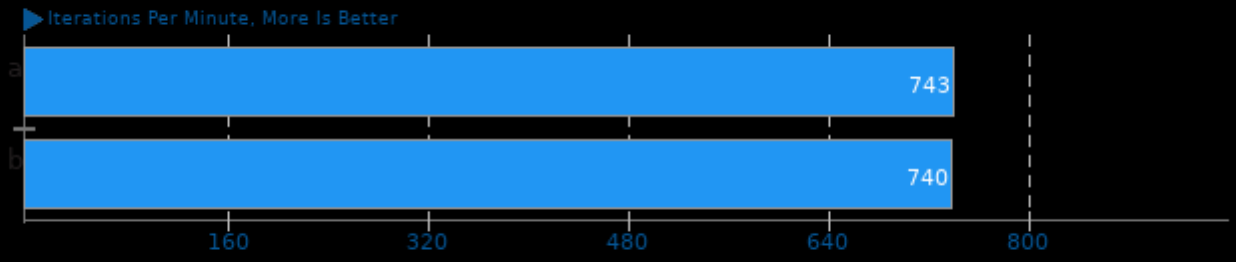
Operation: Noise-Gaussian



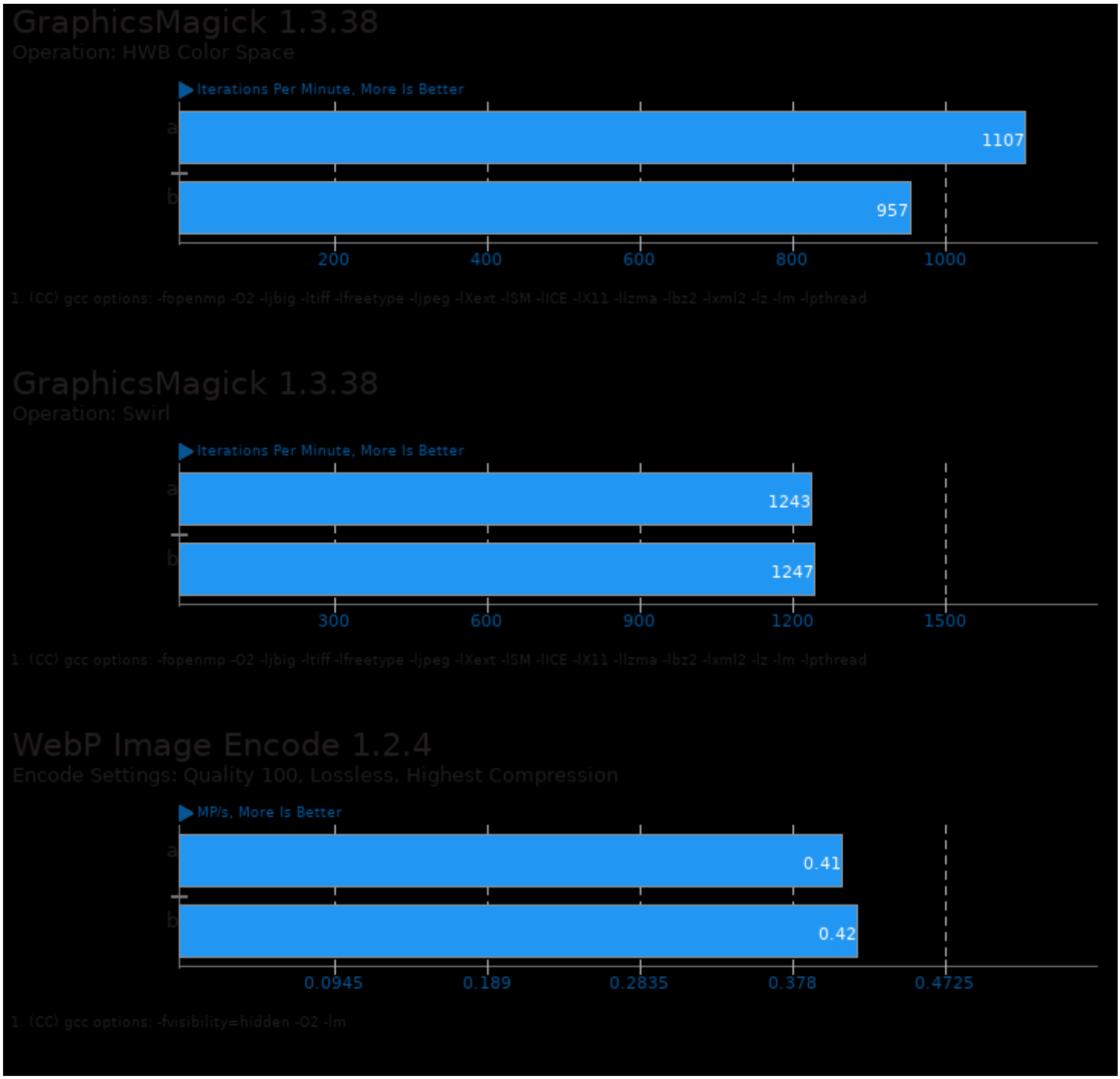
1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.38

Operation: Enhanced

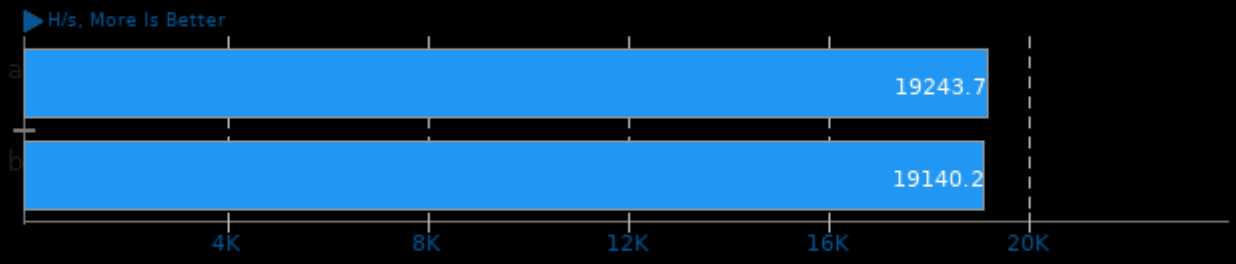


1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread


GraphicsMagick 1.3.38
Operation: HWB Color Space
Iterations Per Minute, More Is Better
a
b
1107
957
200
400
600
800
1000
1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
GraphicsMagick 1.3.38
Operation: Swirl
Iterations Per Minute, More Is Better
a
b
1243
1247
300
600
900
1200
1500
1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
WebP Image Encode 1.2.4
Encode Settings: Quality 100, Lossless, Highest Compression
MP/s, More Is Better
a
b
0.41
0.42
0.0945
0.189
0.2835
0.378
0.4725
1. (CC) gcc options: -fvisibility=hidden -O2 -lm

Xmrig 6.18.1

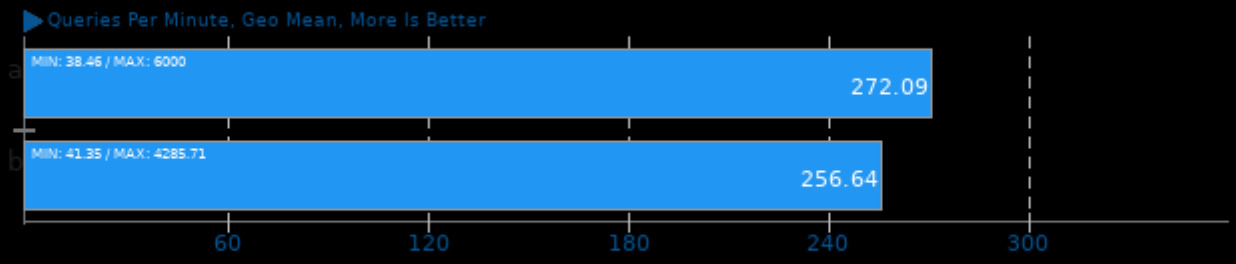
Variant: Wownero - Hash Count: 1M



1. (CXX) g++ options: -fexceptions -fno-rtti -maes -O3 -Ofast -static-libgcc -static-libstdc++ -rdynamic -lssl -lcrypto -luv -lpthread -lrt -ldl -lhwloc

ClickHouse 22.5.4.19

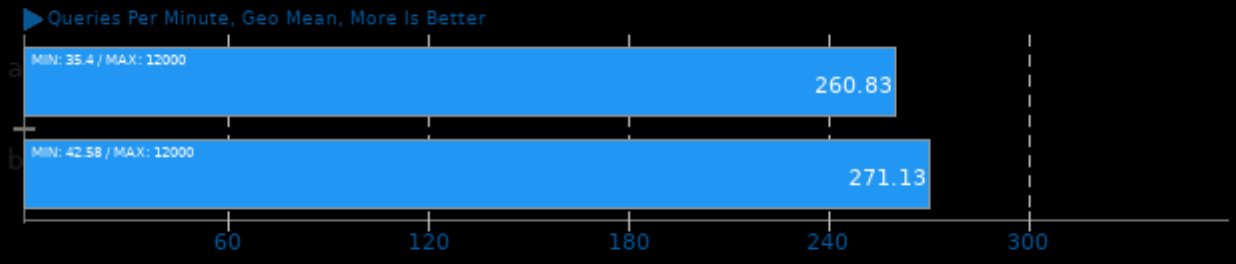
100M Rows Web Analytics Dataset, Third Run



1. ClickHouse server version 22.5.4.19 (official build).

ClickHouse 22.5.4.19

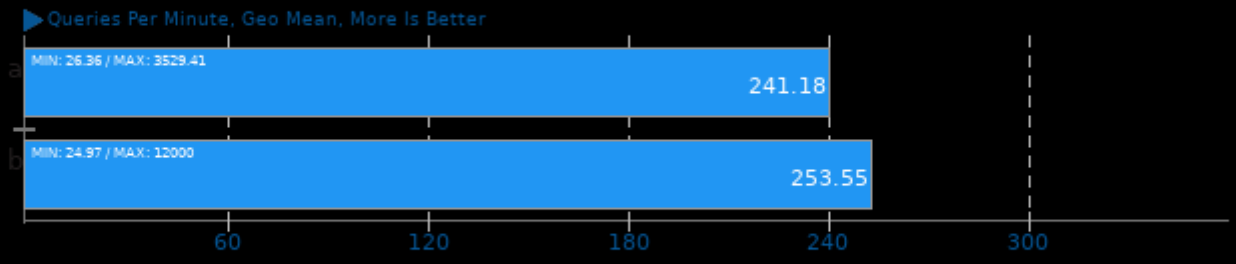
100M Rows Web Analytics Dataset, Second Run



1. ClickHouse server version 22.5.4.19 (official build).

ClickHouse 22.5.4.19

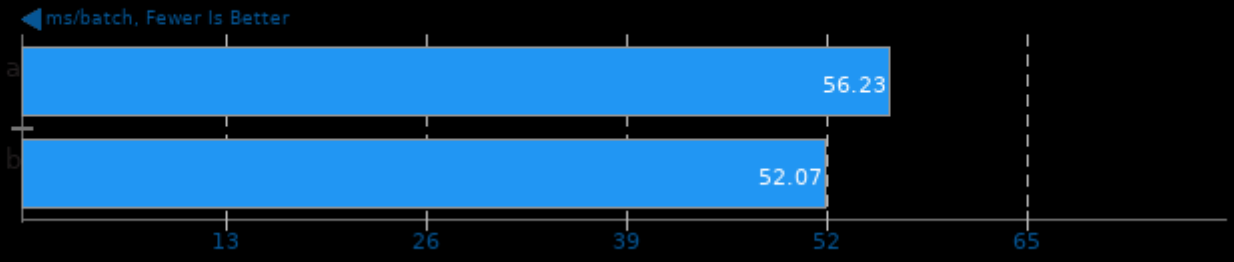
100M Rows Web Analytics Dataset, First Run / Cold Cache



1. ClickHouse server version 22.5.4.19 (official build).

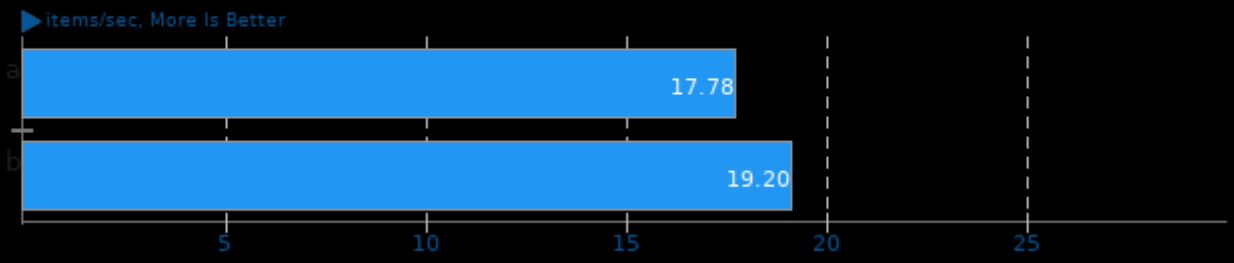
Neural Magic DeepSparse 1.1

Model: NLP Question Answering, BERT base uncased SQuaD 12layer Pruned90 - Scenario: Synchronous Single-Stream



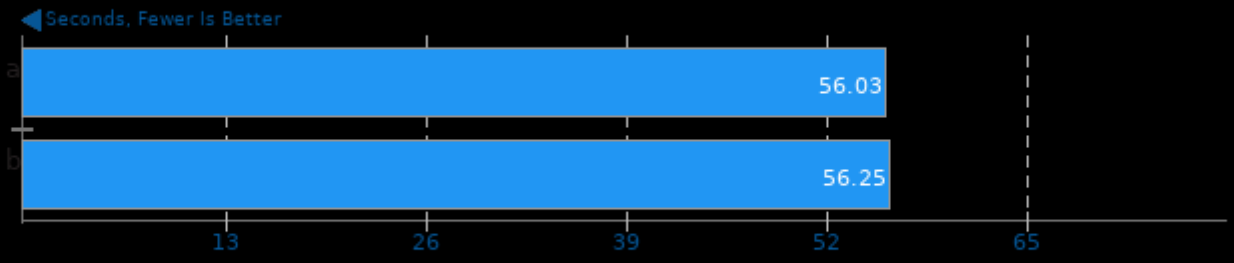
Neural Magic DeepSparse 1.1

Model: NLP Question Answering, BERT base uncased SQuaD 12layer Pruned90 - Scenario: Synchronous Single-Stream



Primesieve 8.0

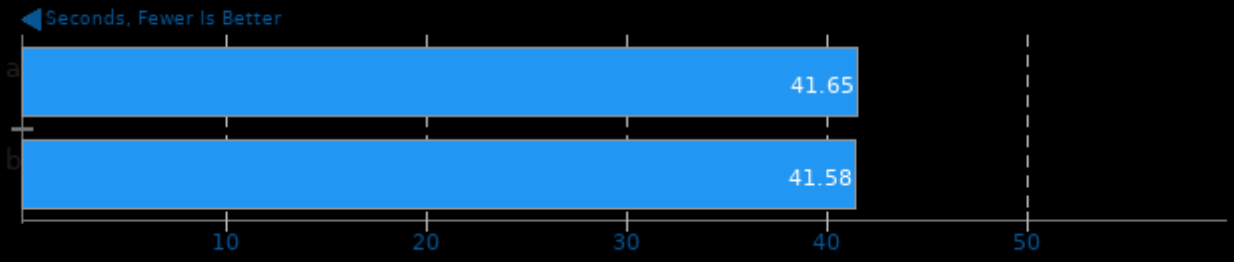
Length: 1e13



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

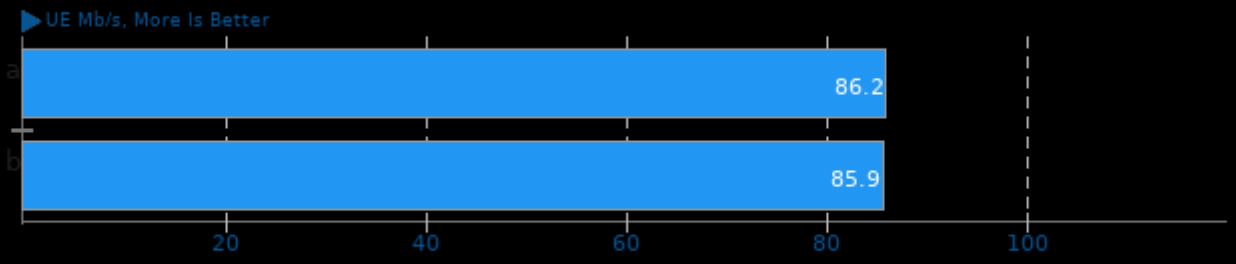
OpenRadioss 2022.10.13

Model: Cell Phone Drop Test



srsRAN 22.04.1

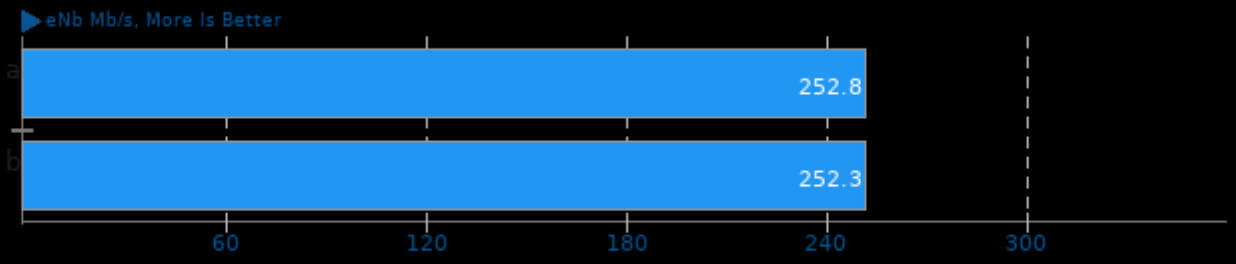
Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM



1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 22.04.1

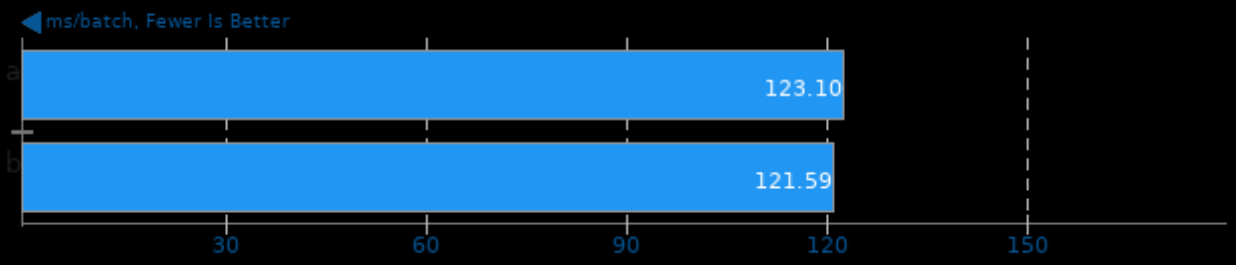
Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM



1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

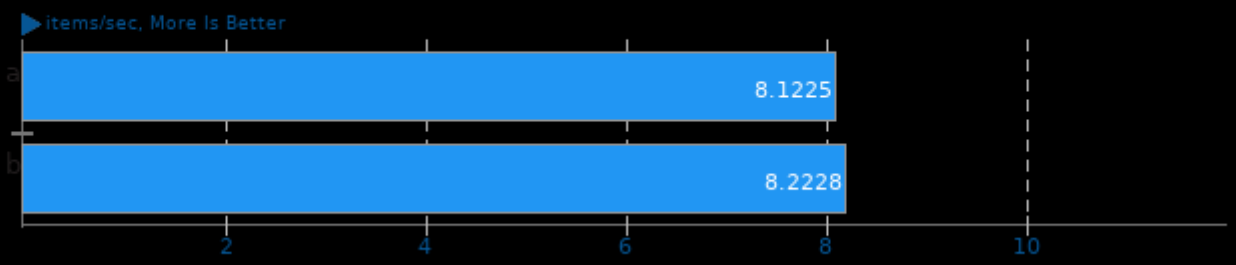
Neural Magic DeepSparse 1.1

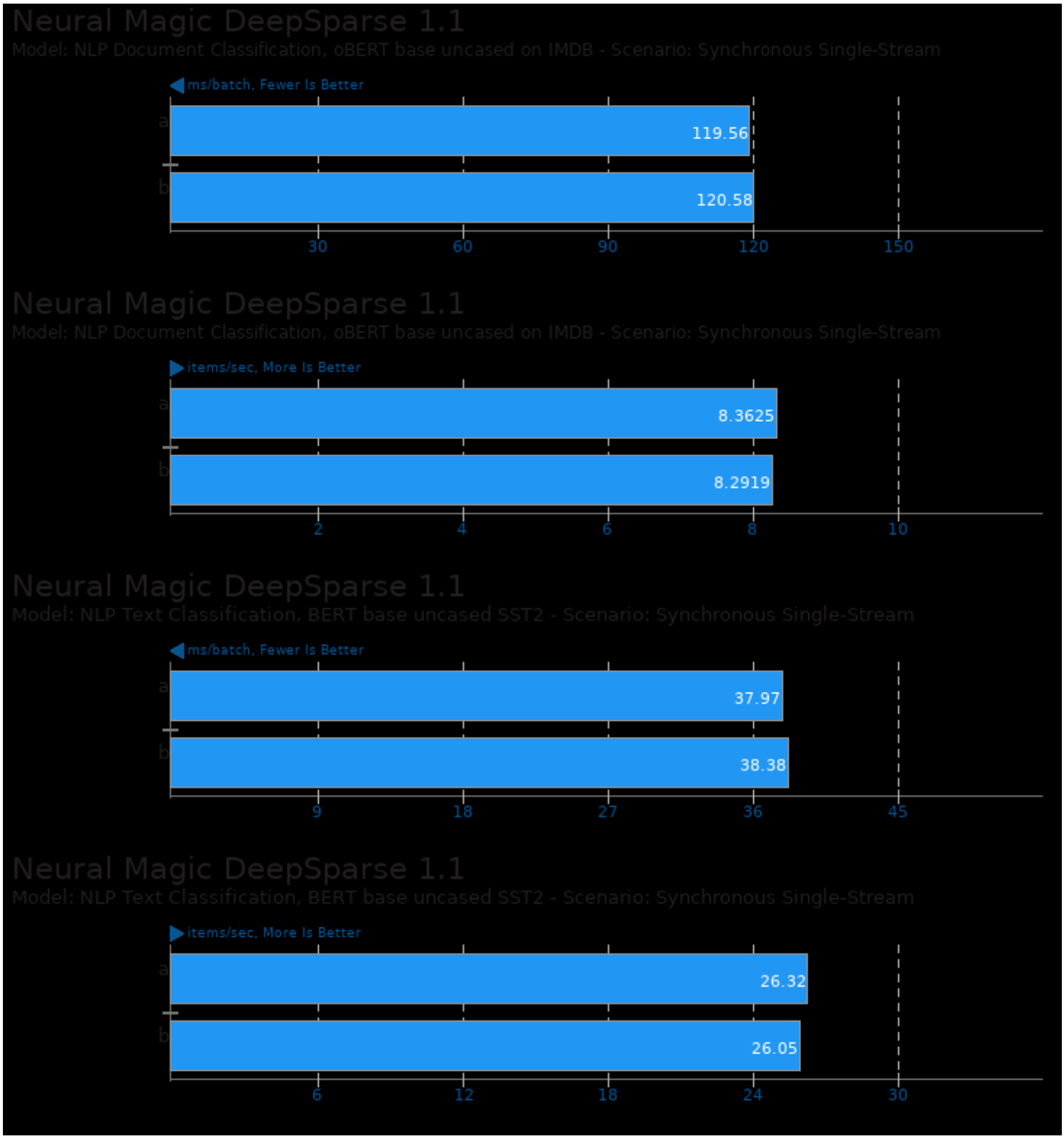
Model: NLP Token Classification, BERT base uncased conll2003 - Scenario: Synchronous Single-Stream



Neural Magic DeepSparse 1.1

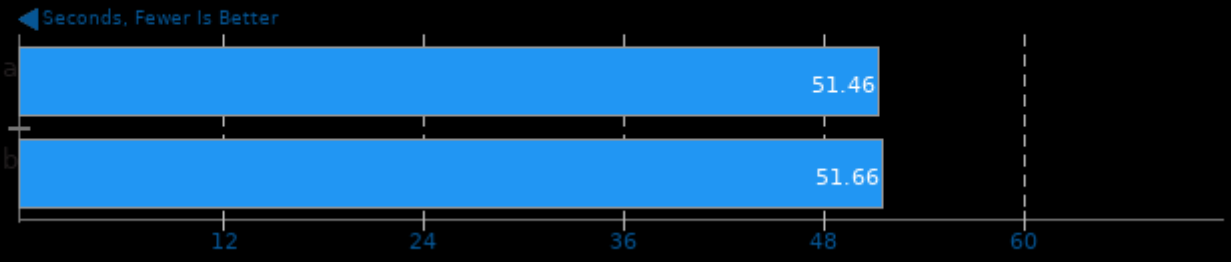
Model: NLP Token Classification, BERT base uncased conll2003 - Scenario: Synchronous Single-Stream




Neural Magic DeepSparse 1.1
Model: NLP Document Classification, oBERT base uncased on IMDB - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
a
119.56
b
120.58
30
60
90
120
150
Neural Magic DeepSparse 1.1
Model: NLP Document Classification, oBERT base uncased on IMDB - Scenario: Synchronous Single-Stream
items/sec, More Is Better
a
8.3625
b
8.2919
2
4
6
8
10
Neural Magic DeepSparse 1.1
Model: NLP Text Classification, BERT base uncased SST2 - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
a
37.97
b
38.38
9
18
27
36
45
Neural Magic DeepSparse 1.1
Model: NLP Text Classification, BERT base uncased SST2 - Scenario: Synchronous Single-Stream
items/sec, More Is Better
a
26.32
b
26.05
6
12
18
24
30

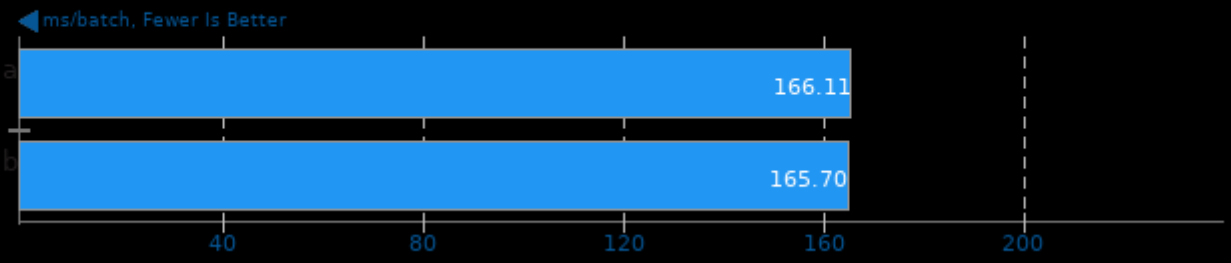
Blender 3.3

Blend File: Fishy Cat - Compute: CPU-Only



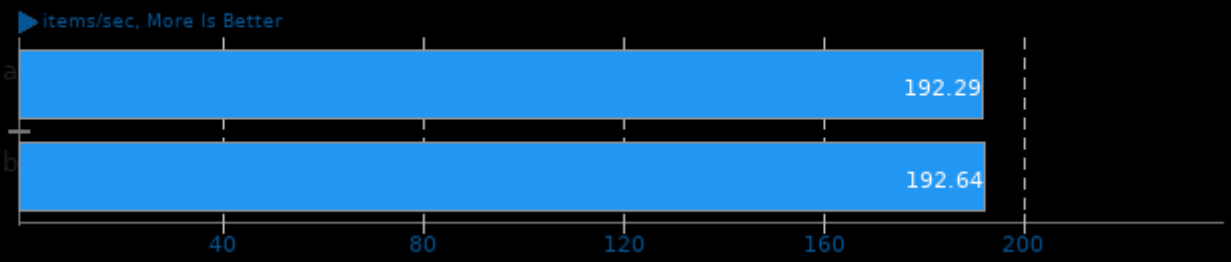
Neural Magic DeepSparse 1.1

Model: NLP Text Classification, DistilBERT mnli - Scenario: Asynchronous Multi-Stream



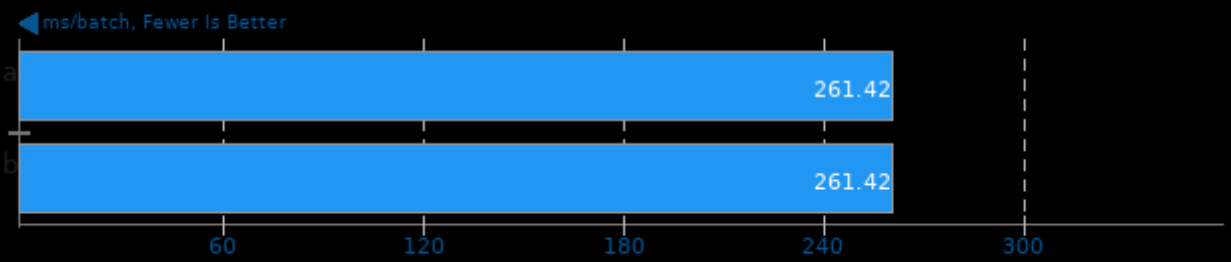
Neural Magic DeepSparse 1.1

Model: NLP Text Classification, DistilBERT mnli - Scenario: Asynchronous Multi-Stream



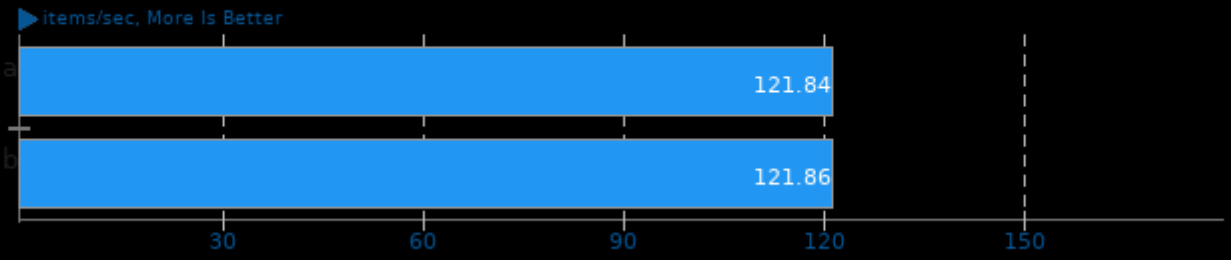
Neural Magic DeepSparse 1.1

Model: CV Detection,YOLOv5s COCO - Scenario: Asynchronous Multi-Stream



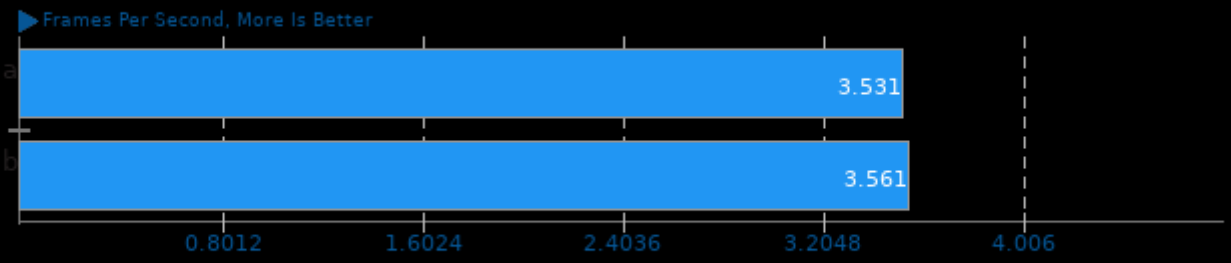
Neural Magic DeepSparse 1.1

Model: CV Detection,YOLOv5s COCO - Scenario: Asynchronous Multi-Stream



SVT-AV1 1.2

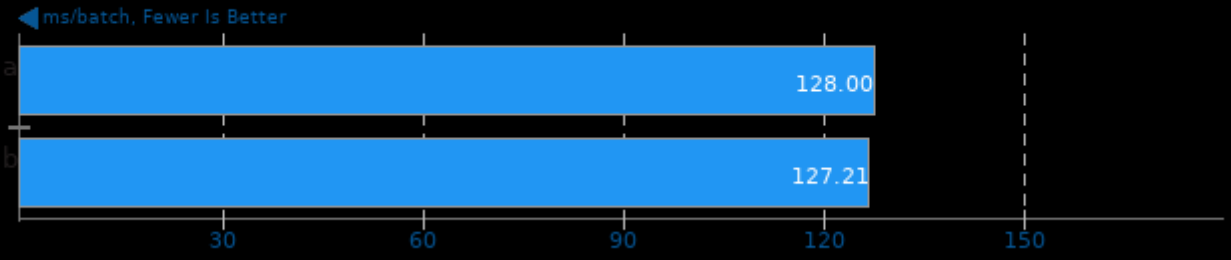
Encoder Mode: Preset 4 - Input: Bosphorus 1080p



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

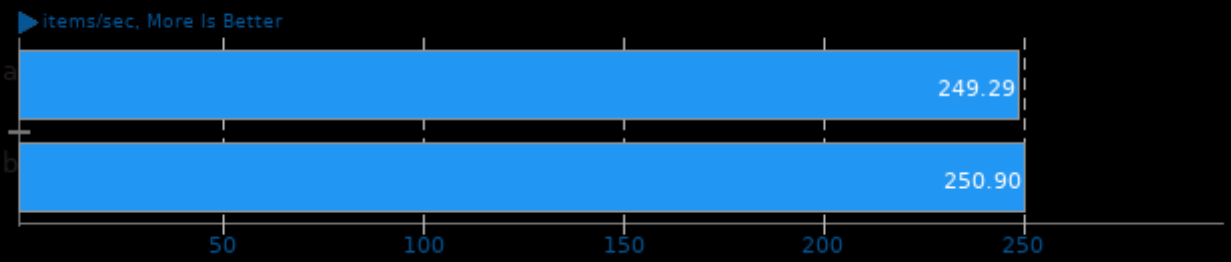
Neural Magic DeepSparse 1.1

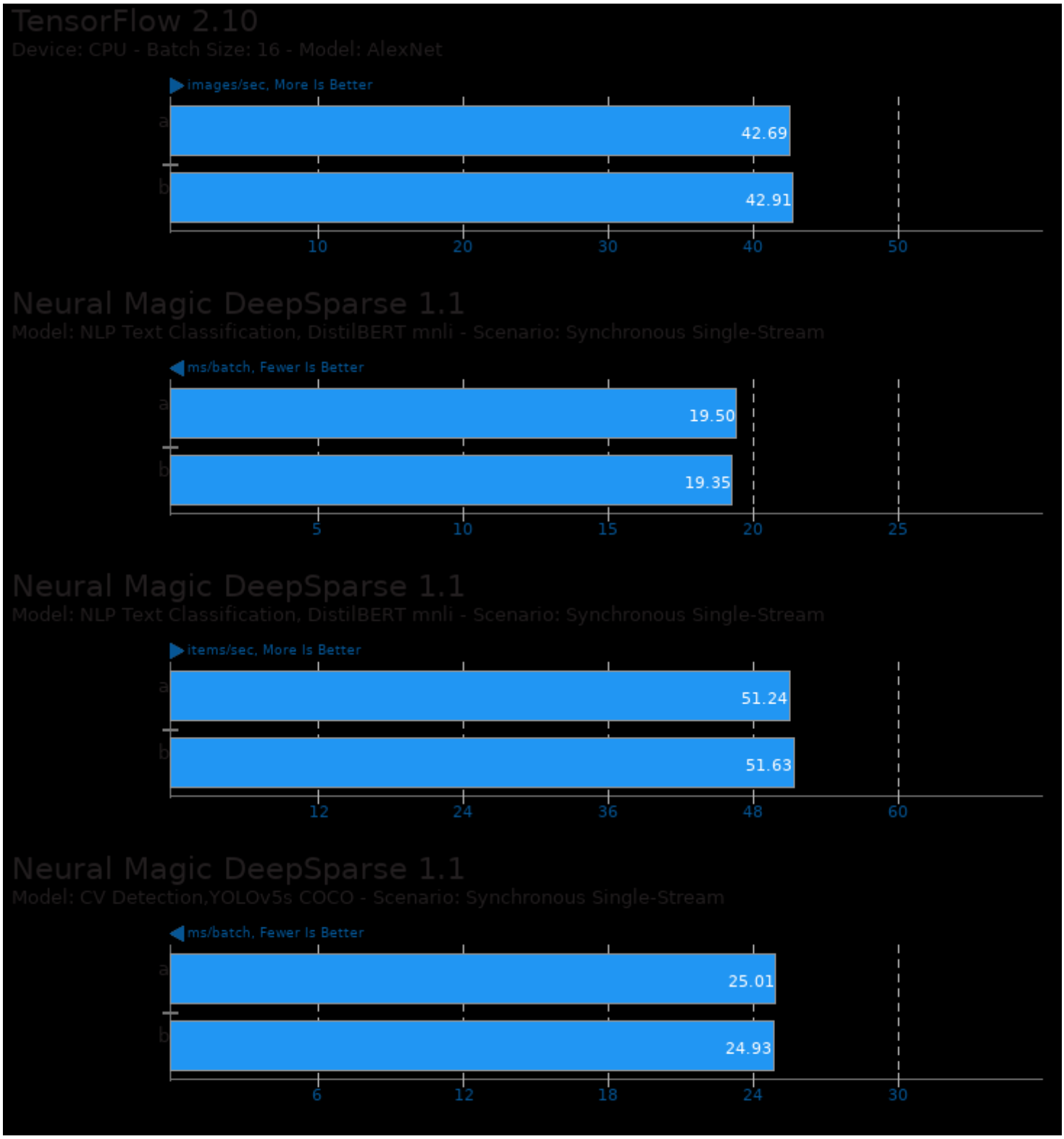
Model: CV Classification, ResNet-50 ImageNet - Scenario: Asynchronous Multi-Stream

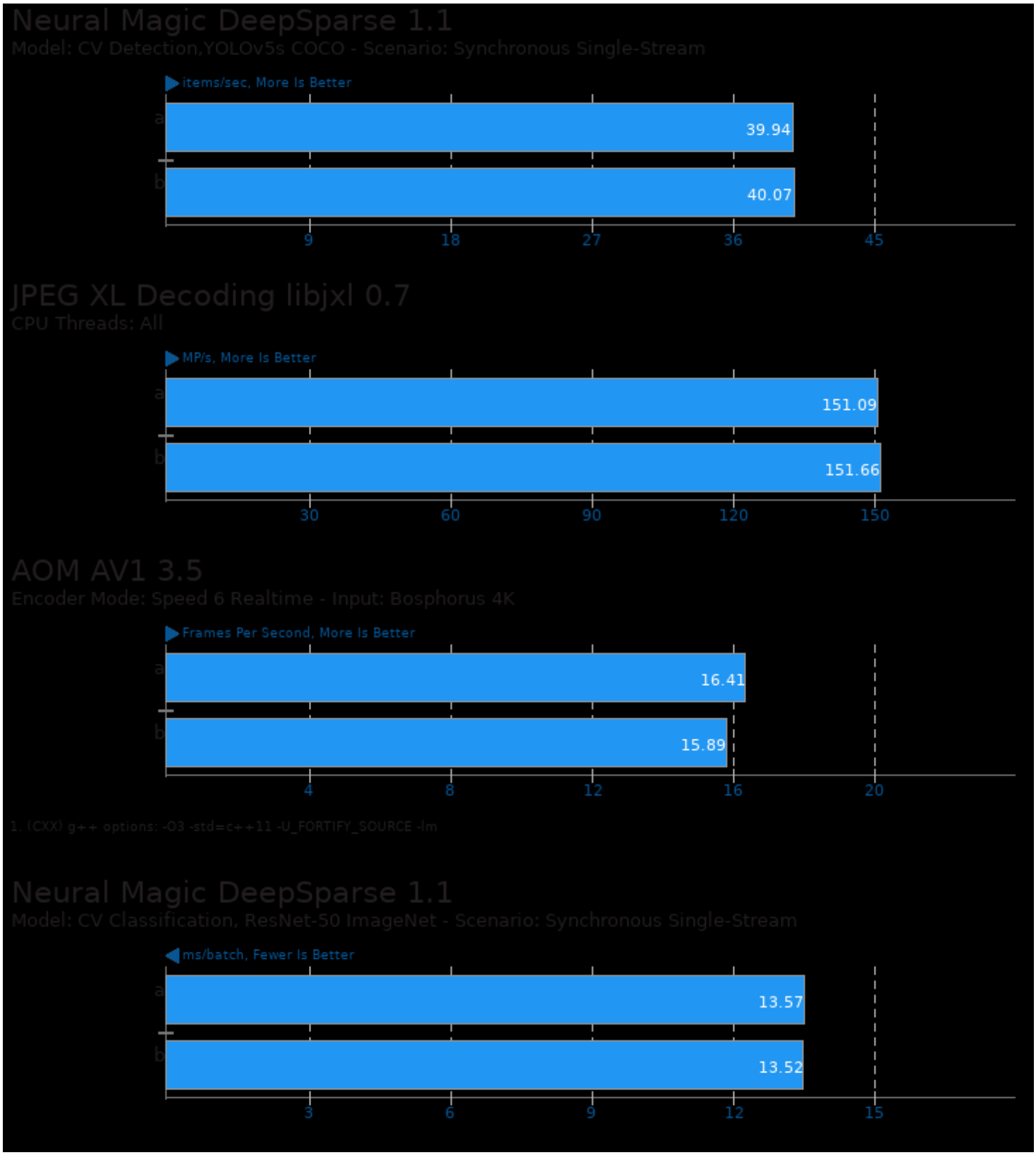


Neural Magic DeepSparse 1.1

Model: CV Classification, ResNet-50 ImageNet - Scenario: Asynchronous Multi-Stream

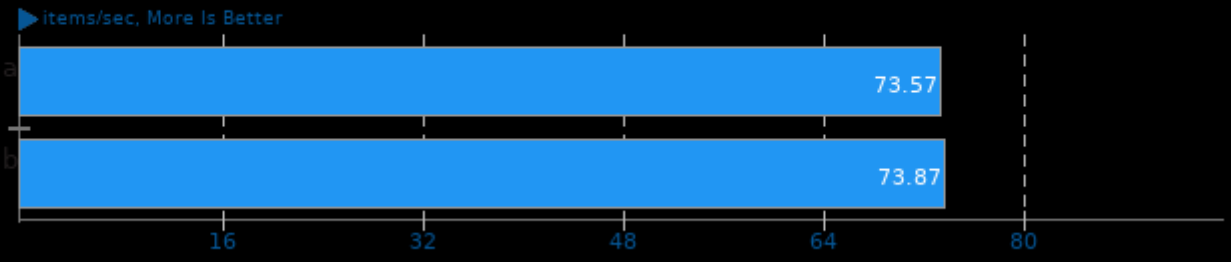



TensorFlow 2.10
Device: CPU - Batch Size: 16 - Model: AlexNet
images/sec, More Is Better
a
42.69
b
42.91
10
20
30
40
50
Neural Magic DeepSparse 1.1
Model: NLP Text Classification, DistilBERT mnli - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
a
19.50
b
19.35
5
10
15
20
25
Neural Magic DeepSparse 1.1
Model: NLP Text Classification, DistilBERT mnli - Scenario: Synchronous Single-Stream
items/sec, More Is Better
a
51.24
b
51.63
12
24
36
48
60
Neural Magic DeepSparse 1.1
Model: CV Detection,YOLOv5s COCO - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
a
25.01
b
24.93
6
12
18
24
30


Neural Magic DeepSparse 1.1
Model: CV Detection,YOLOv5s COCO - Scenario: Synchronous Single-Stream
items/sec, More Is Better
a
39.94
b
40.07
9
18
27
36
45
JPEG XL Decoding libjxl 0.7
CPU Threads: All
MP/s, More Is Better
a
151.09
b
151.66
30
60
90
120
150
AOM AV1 3.5
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K
Frames Per Second, More Is Better
a
16.41
b
15.89
4
8
12
16
20
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm
Neural Magic DeepSparse 1.1
Model: CV Classification, ResNet-50 ImageNet - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
a
13.57
b
13.52
3
6
9
12
15

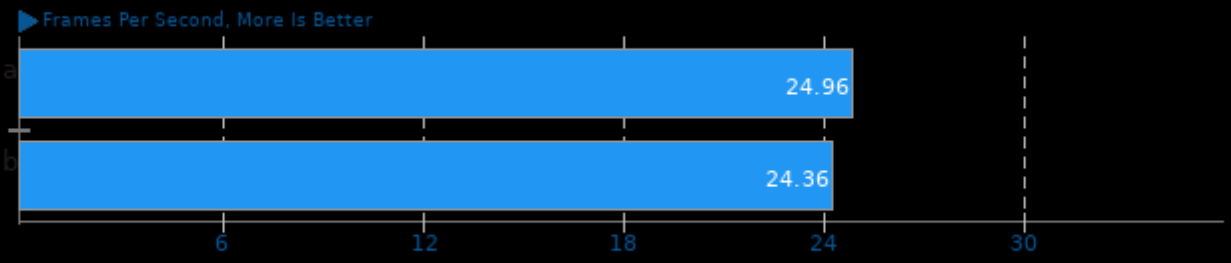
Neural Magic DeepSparse 1.1

Model: CV Classification, ResNet-50 ImageNet - Scenario: Synchronous Single-Stream



AOM AV1 3.5

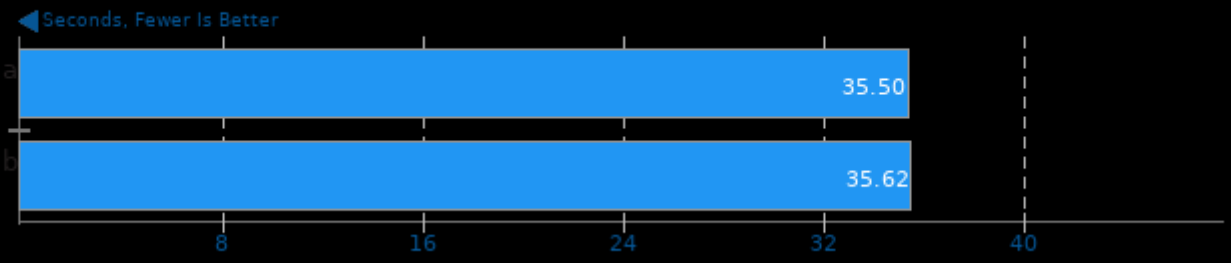
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

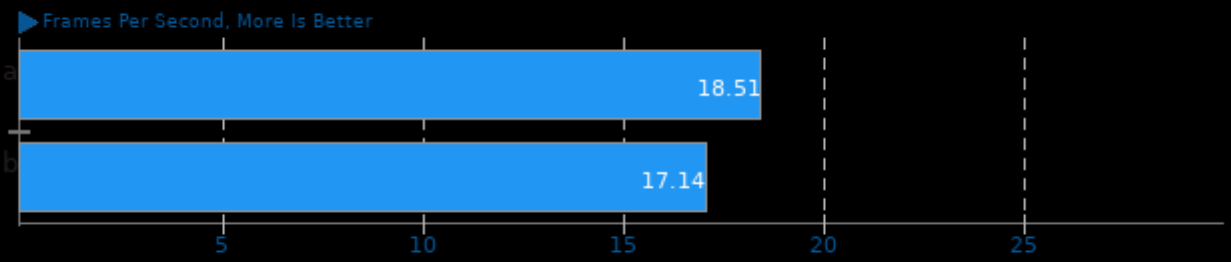
Blender 3.3

Blend File: BMW27 - Compute: CPU-Only

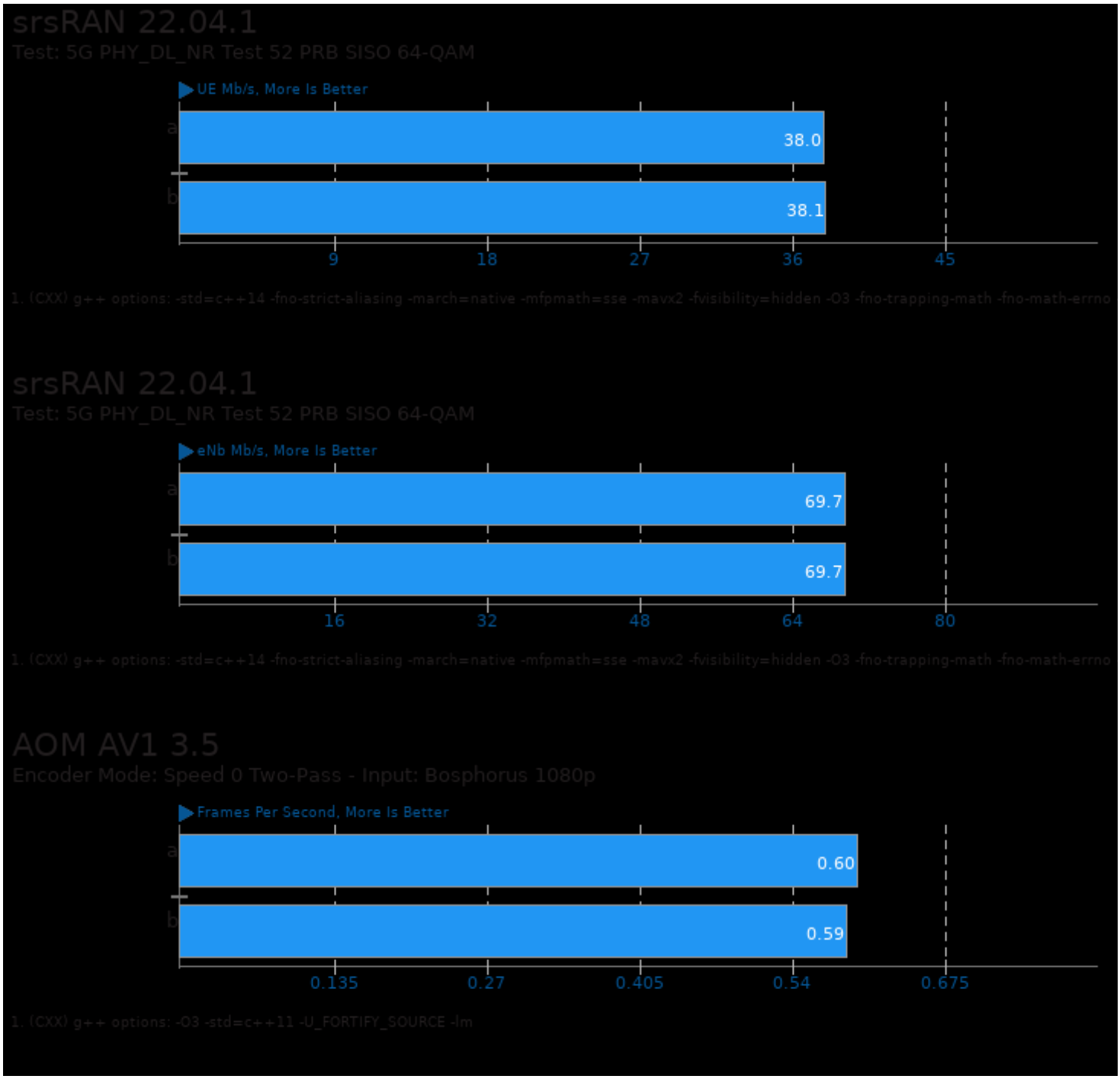


AOM AV1 3.5

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

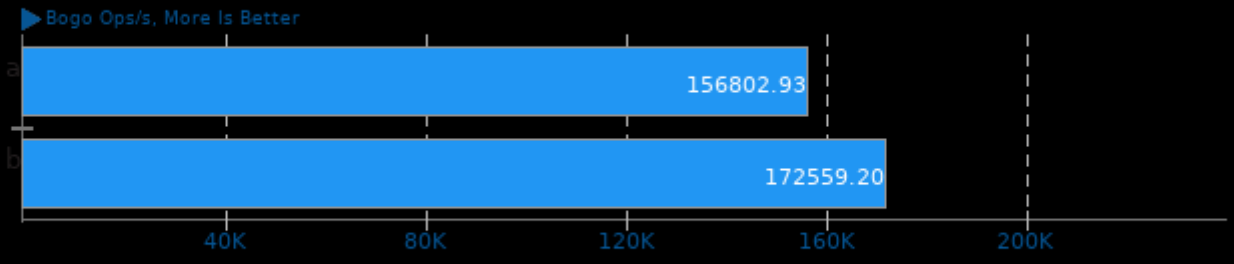


1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm


srsRAN 22.04.1
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM
UE Mb/s, More Is Better
a
38.0
b
38.1
9
18
27
36
45
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 22.04.1
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM
eNb Mb/s, More Is Better
a
69.7
b
69.7
16
32
48
64
80
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
AOM AV1 3.5
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 1080p
Frames Per Second, More Is Better
a
0.60
b
0.59
0.135
0.27
0.405
0.54
0.675
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

Stress-NG 0.14.06

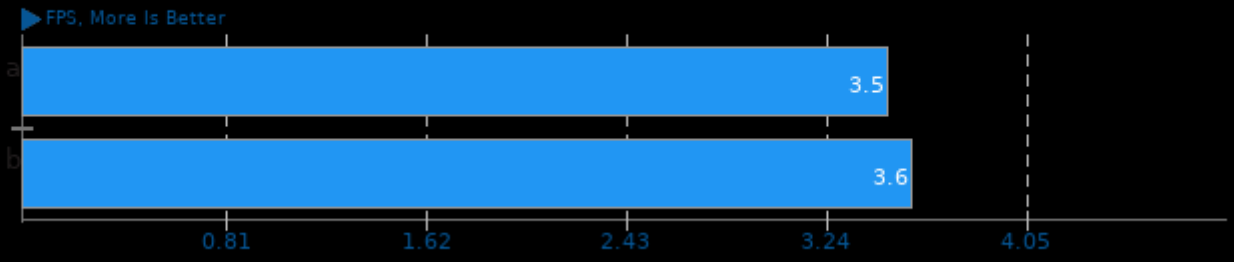
Test: Atomic



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

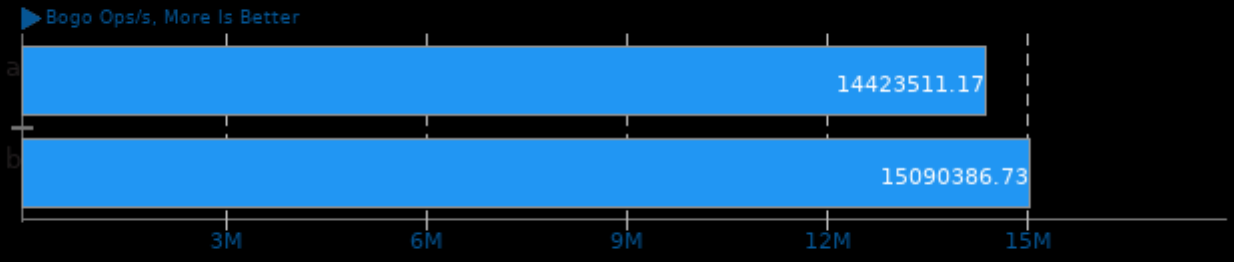
Natron 2.4.3

Input: Spaceship



Stress-NG 0.14.06

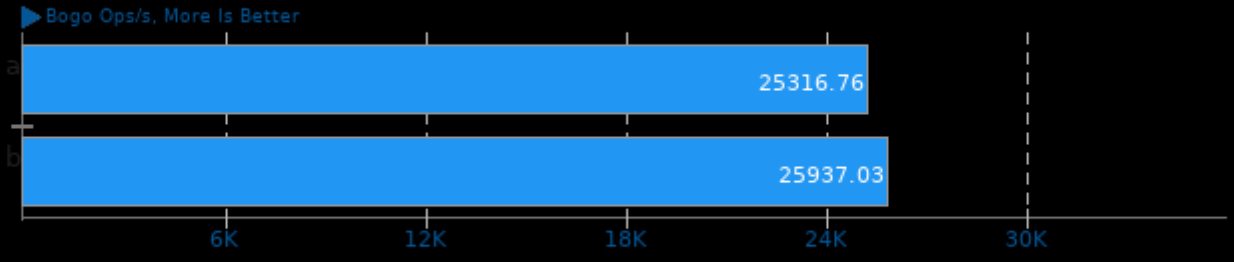
Test: Context Switching



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

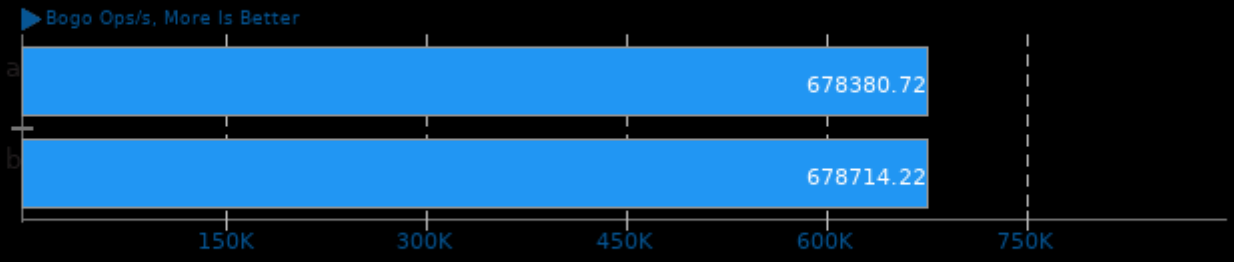
Test: Socket Activity



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

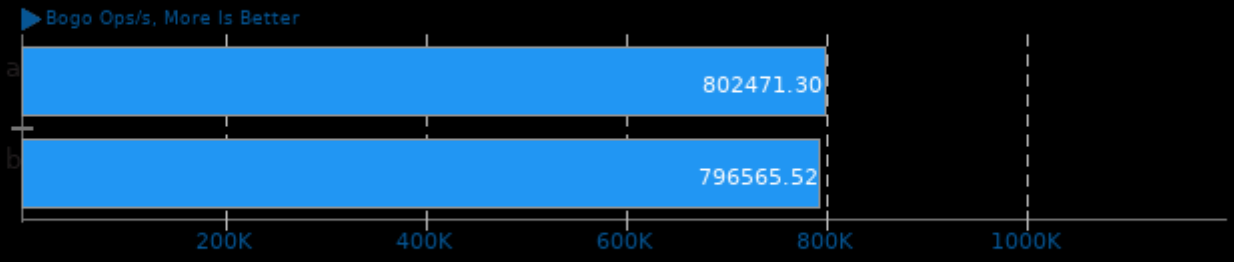
Test: SENDFILE



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

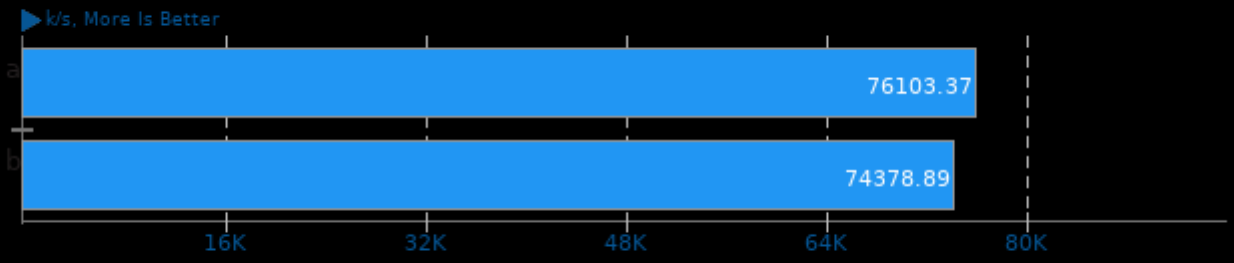
Stress-NG 0.14.06

Test: Futex



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

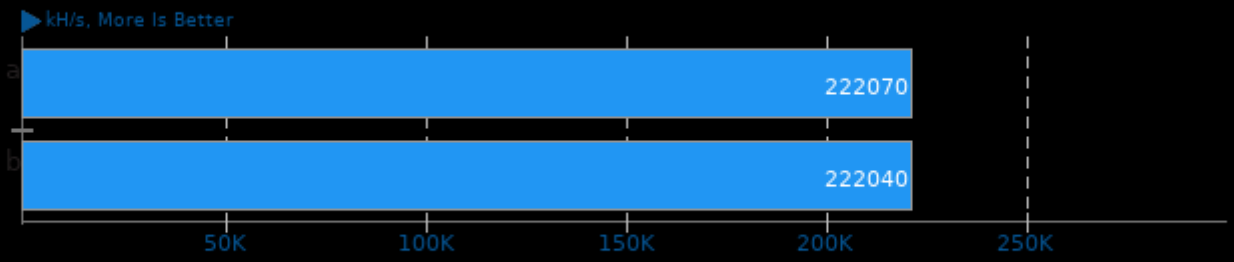
Aircrack-ng 1.7



1. (CXX) g++ options: -std=gnu++17 -O3 -fvisibility=hidden -fcommon -rdynamic -lnl-3 -lnl-genl-3 -lsqlite3 -lpthread -lz -lssl -lcrypto -lhwloc -ldl -lm -pth

Cpuminer-Opt 3.20.3

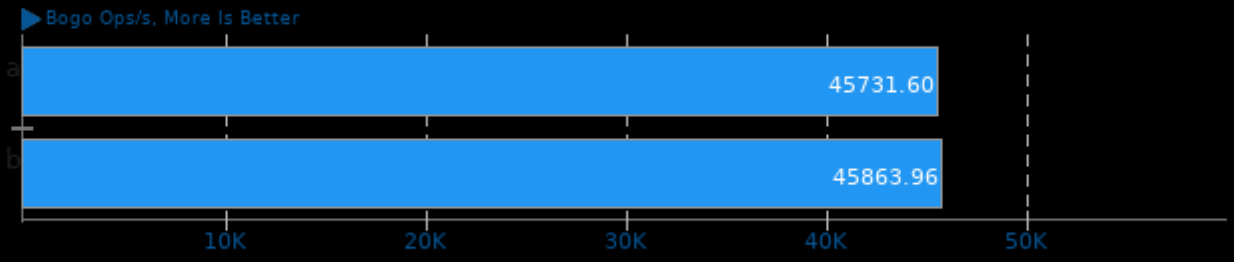
Algorithm: Skeincoin



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Stress-NG 0.14.06

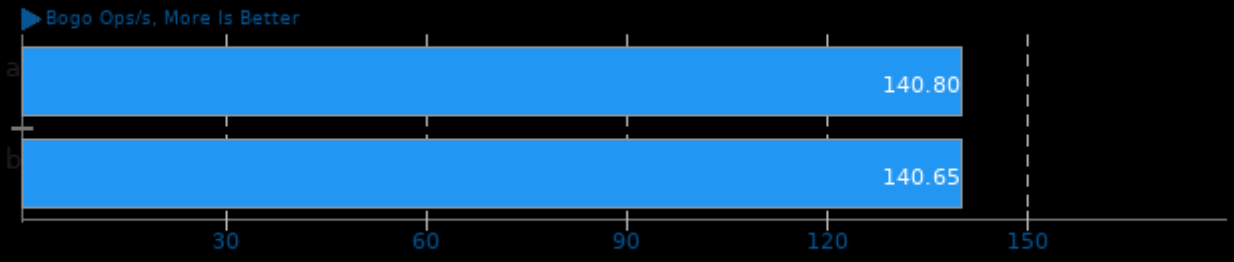
Test: IO_uring



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

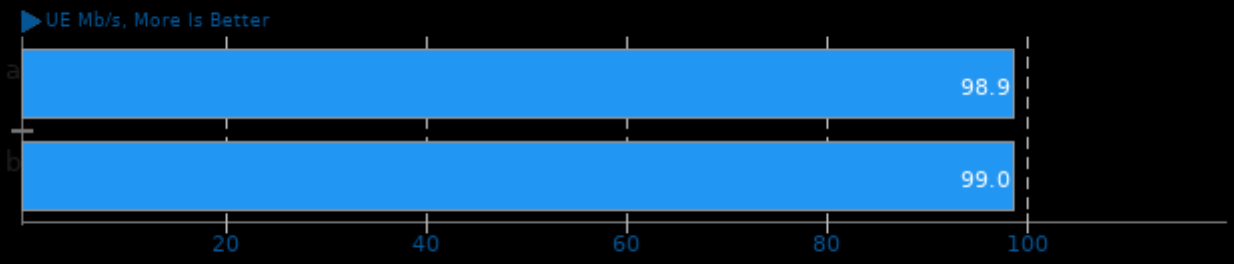
Test: NUMA



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

srsRAN 22.04.1

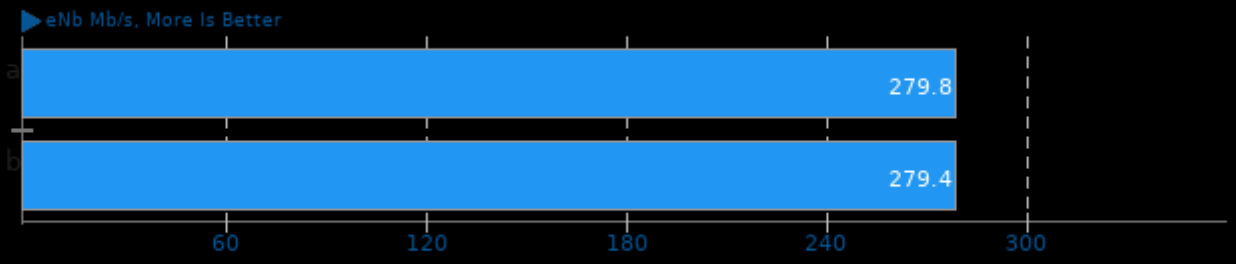
Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM



1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 22.04.1

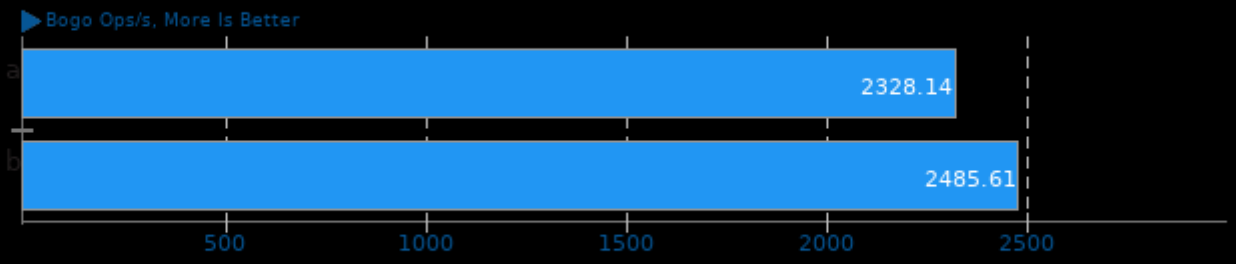
Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM



1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

Stress-NG 0.14.06

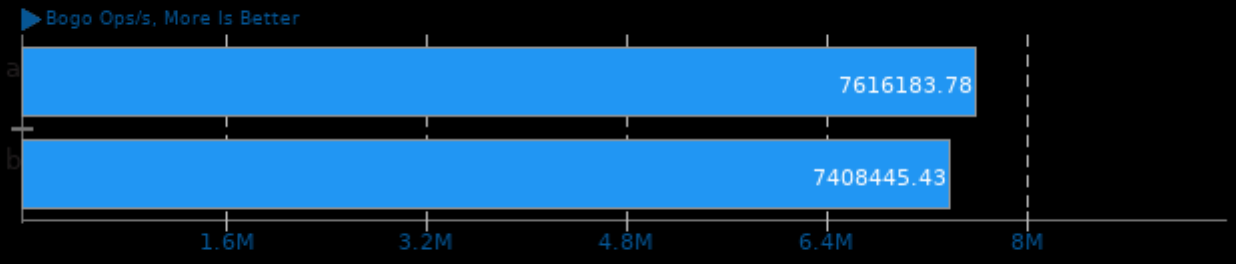
Test: Memory Copying



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

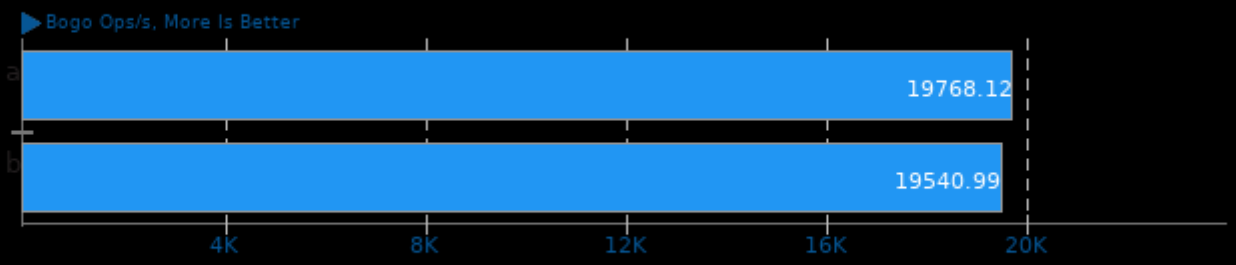
Test: System V Message Passing



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

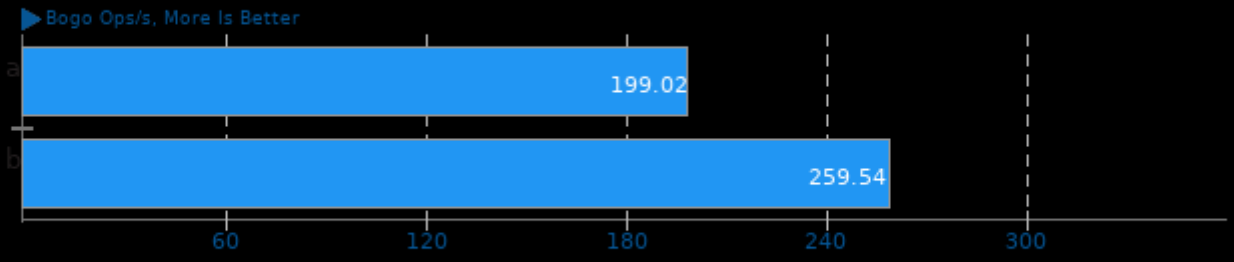
Test: Forking



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

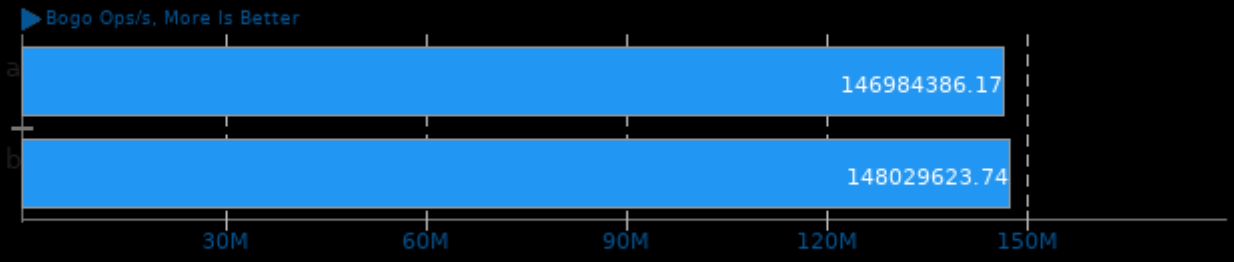
Test: CPU Cache



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

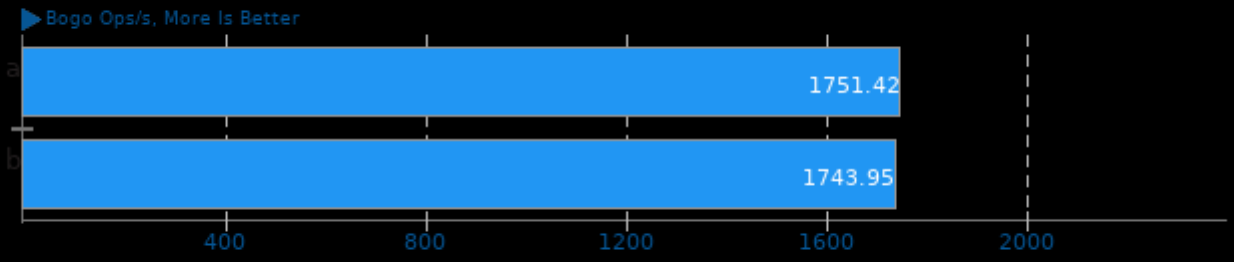
Test: Malloc



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

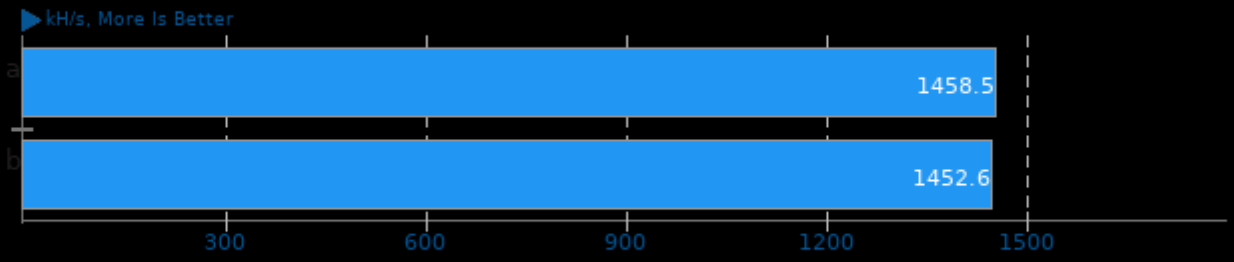
Test: MEMFD



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Cpuminer-Opt 3.20.3

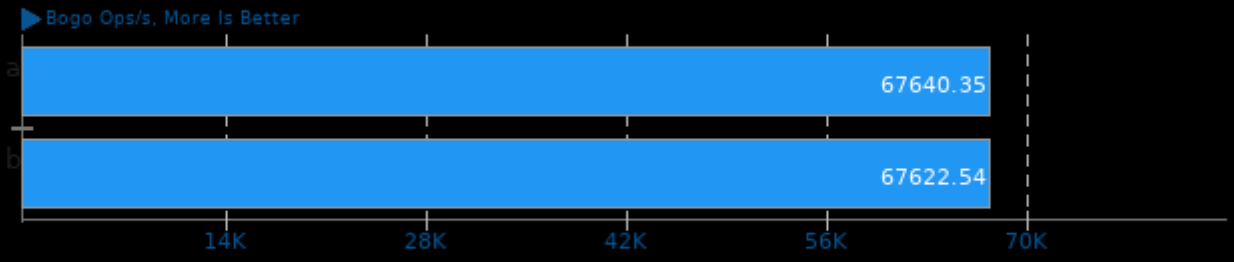
Algorithm: x25x



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Stress-NG 0.14.06

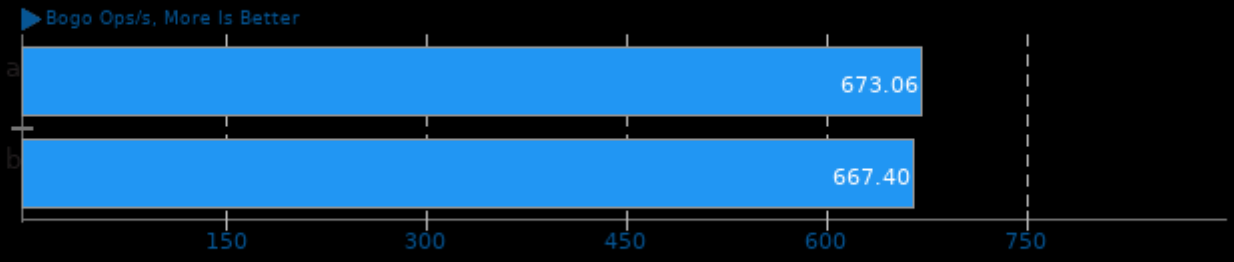
Test: Crypto



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

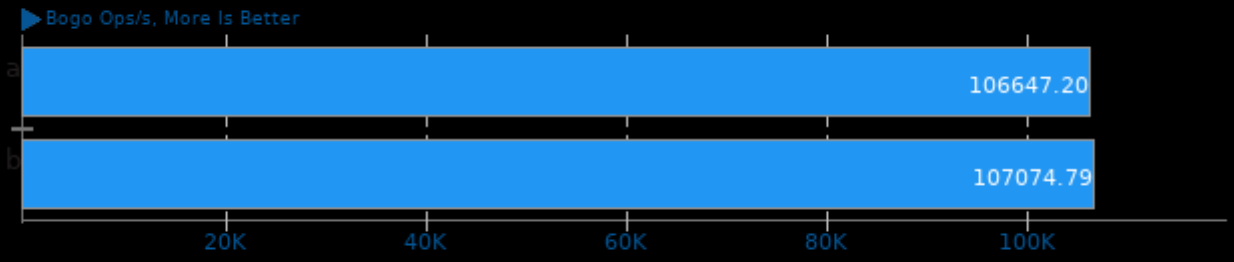
Test: Glibc Qsort Data Sorting



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

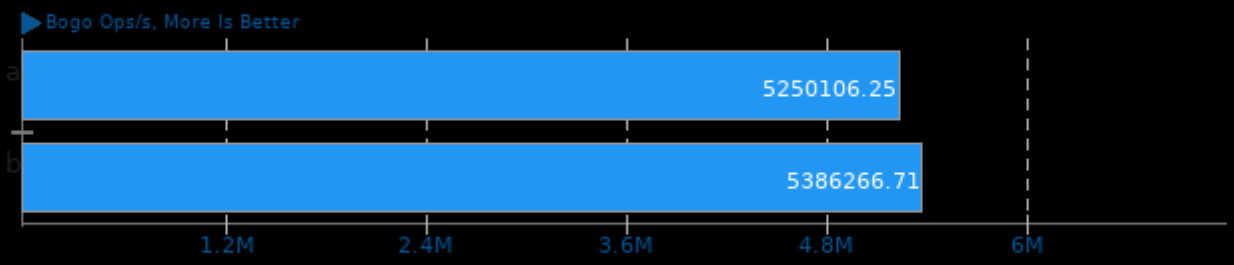
Test: CPU Stress



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

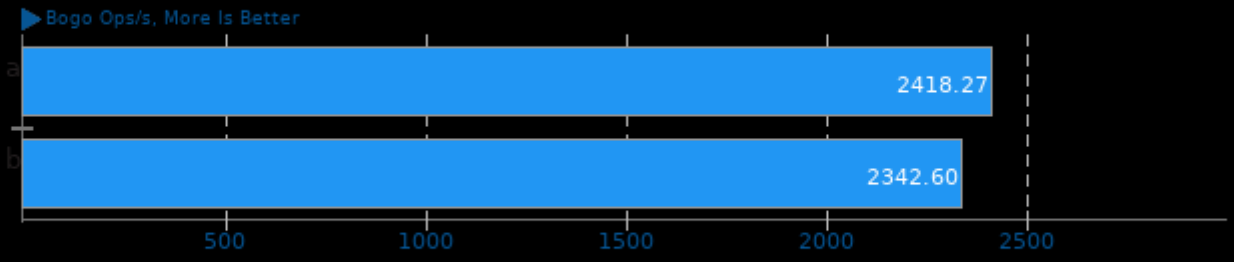
Test: Glibc C String Functions



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

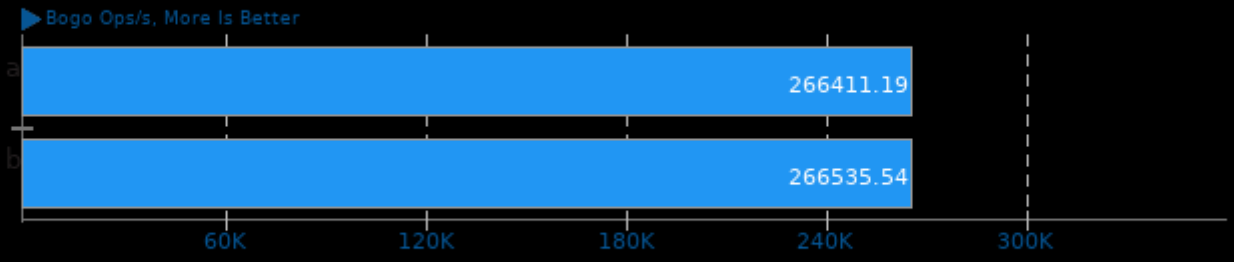
Test: MMAP



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

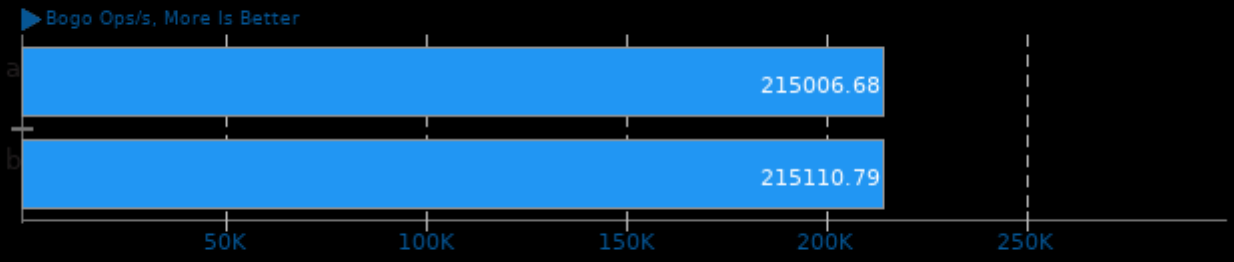
Test: Vector Math



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

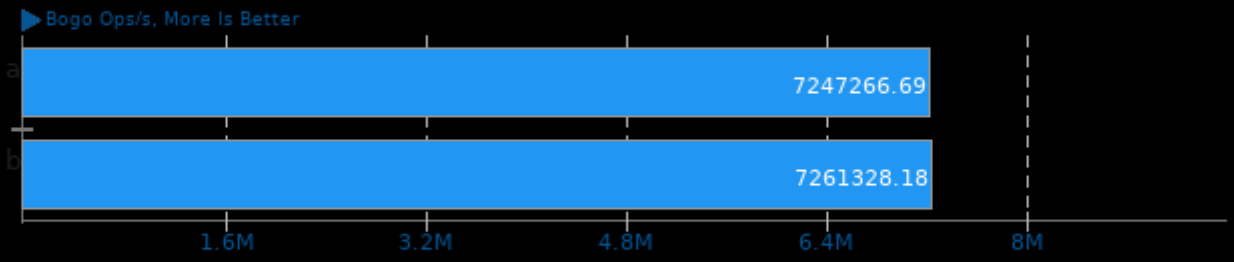
Test: Matrix Math



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

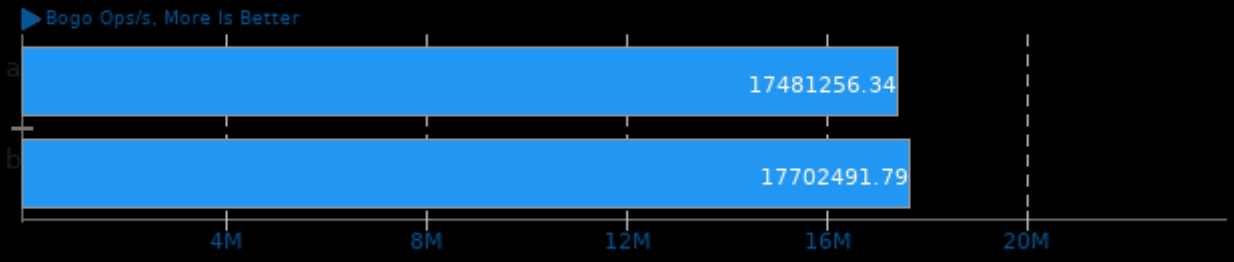
Test: Semaphores



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

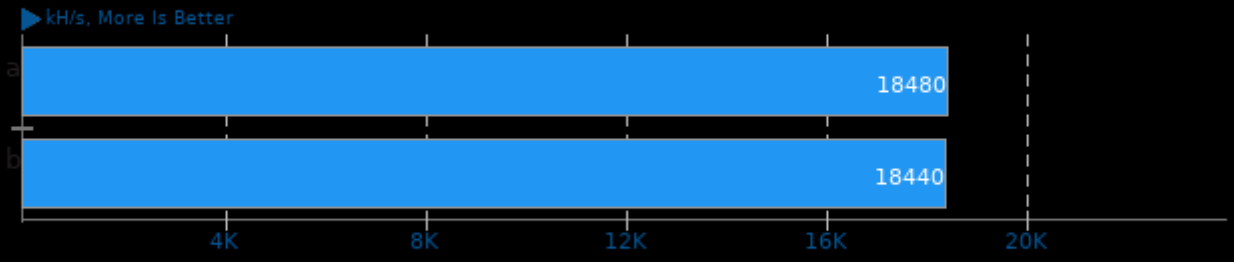
Test: Mutex



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -ljpeg -lrt -lsctp -lz -pthread

Cpuminer-Opt 3.20.3

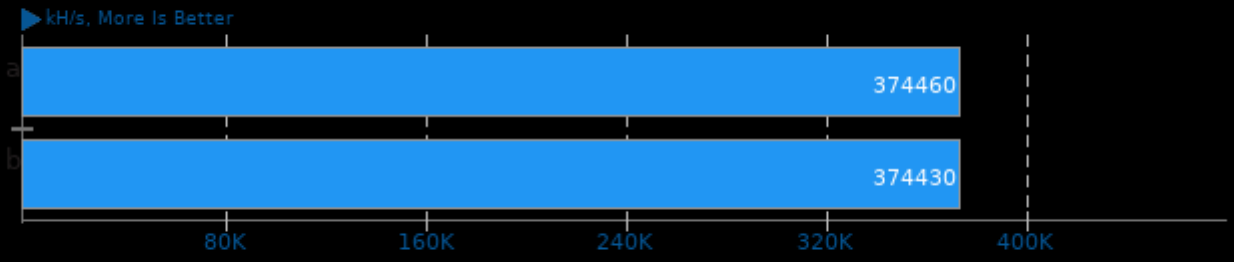
Algorithm: Ringcoin



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrycpto -lgmp

Cpuminer-Opt 3.20.3

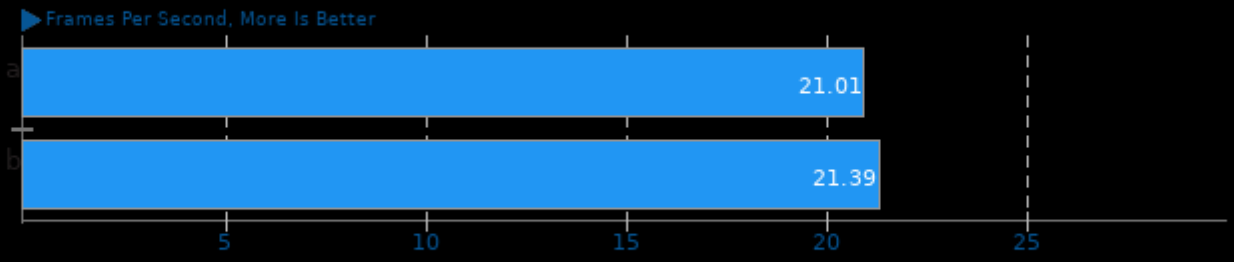
Algorithm: Quad SHA-256, Pyrite



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrycpto -lgmp

AOM AV1 3.5

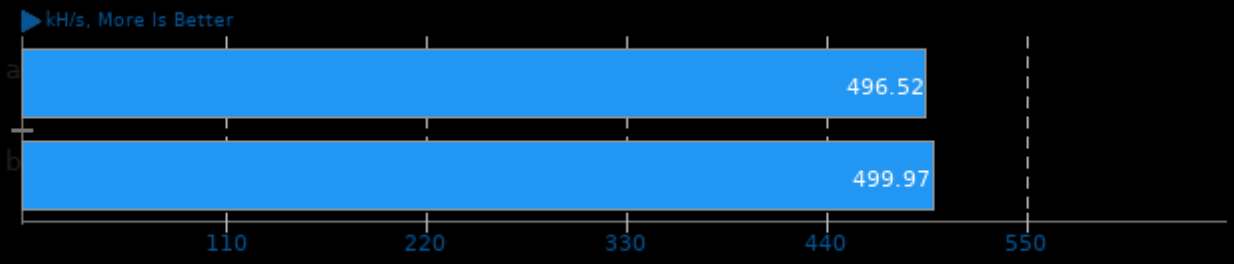
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

Cpuminer-Opt 3.20.3

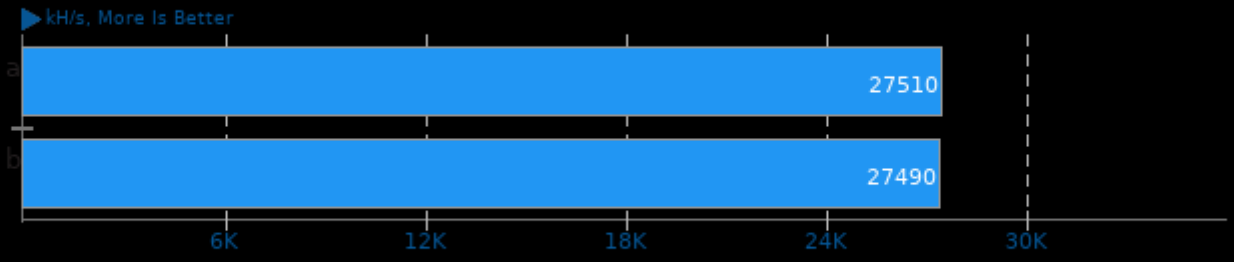
Algorithm: scrypt



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.20.3

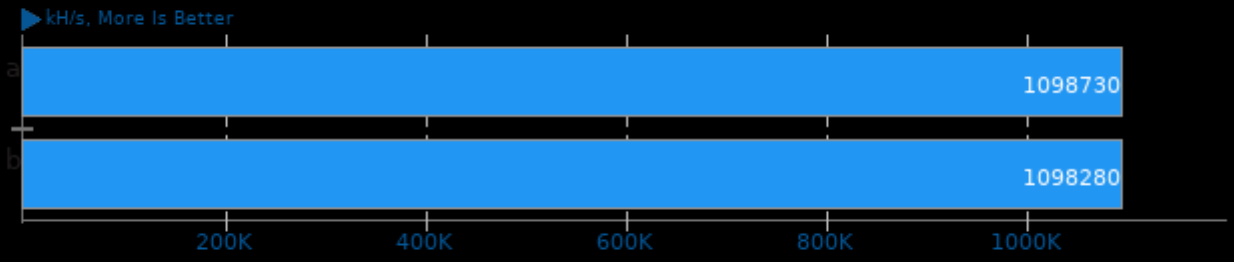
Algorithm: Deepcoin



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.20.3

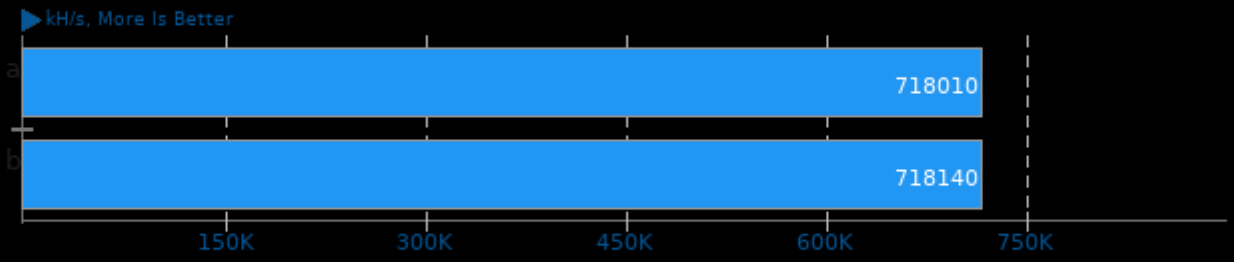
Algorithm: Blake-2 S



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.20.3

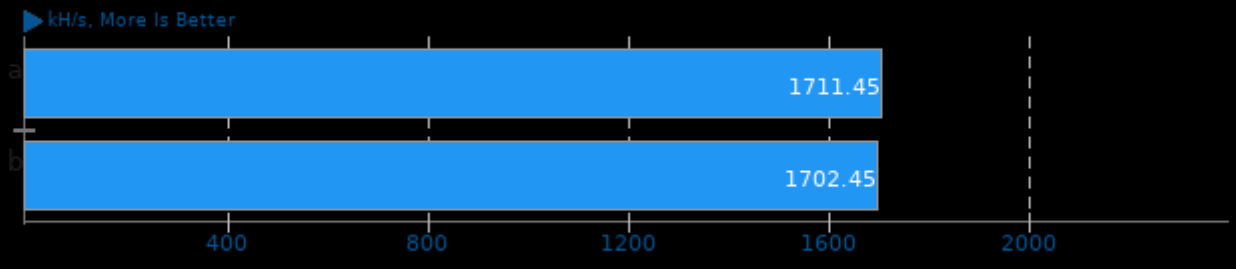
Algorithm: Triple SHA-256, Onecoin



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.20.3

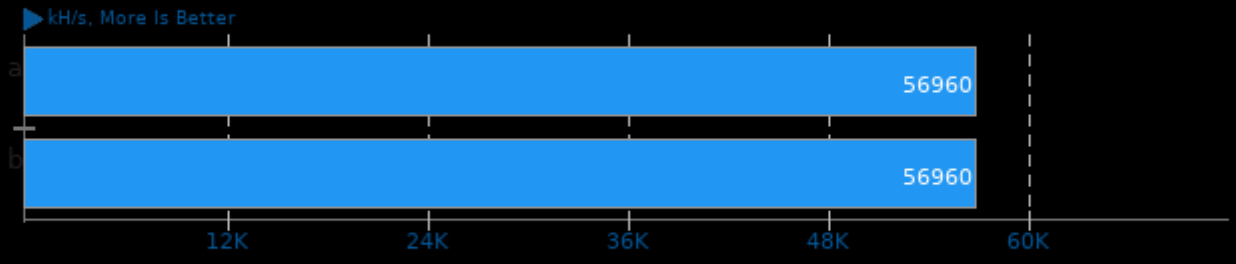
Algorithm: Magi



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.20.3

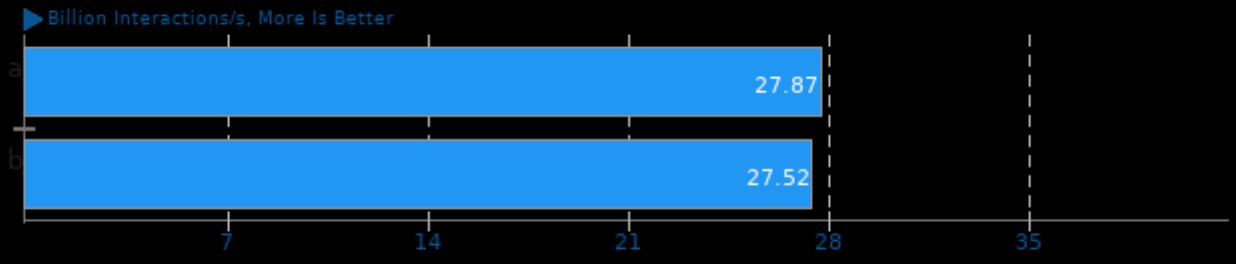
Algorithm: LBC, LBRY Credits



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

miniBUDE 20210901

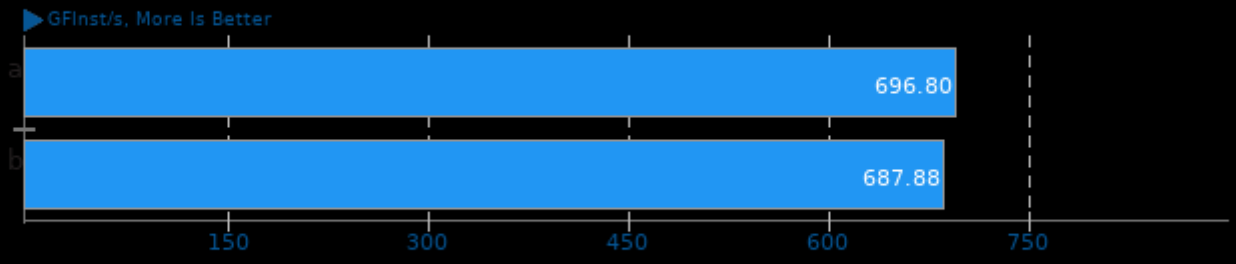
Implementation: OpenMP - Input Deck: BM1



1. (CC) gcc options: -std=c99 -Ofast -ffast-math -fopenmp -march=native -lm

miniBUDE 20210901

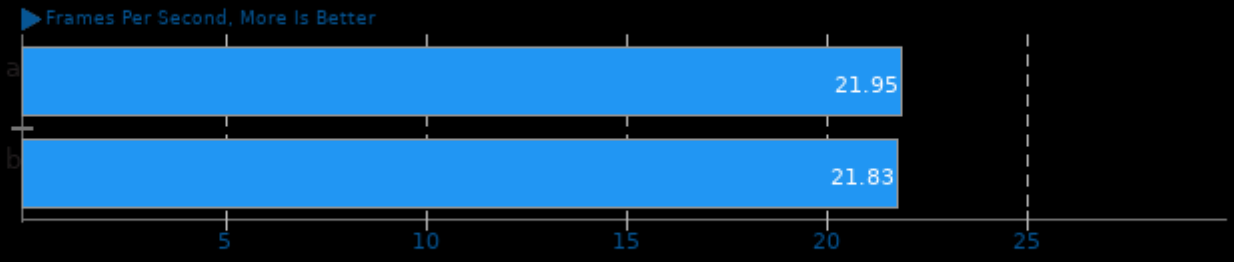
Implementation: OpenMP - Input Deck: BM1



1. (CC) gcc options: -std=c99 -Ofast -ffast-math -fopenmp -march=native -lm

AOM AV1 3.5

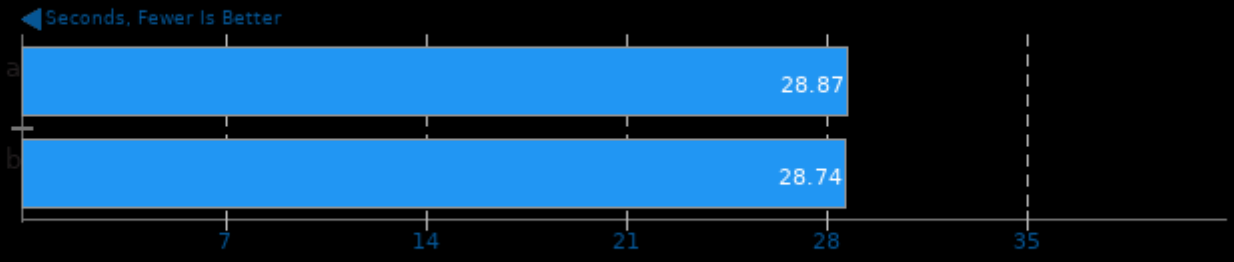
Encoder Mode: Speed 10 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

FLAC Audio Encoding 1.4

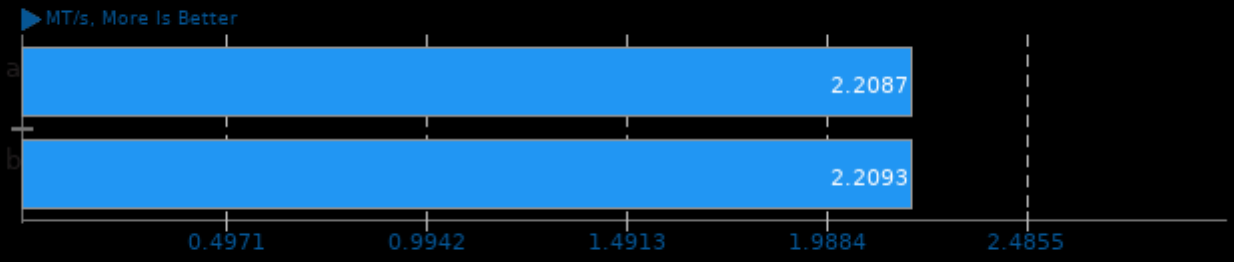
WAV To FLAC



1. (CXX) g++ options: -O3 -fvisibility=hidden -logg -lm

ASTC Encoder 4.0

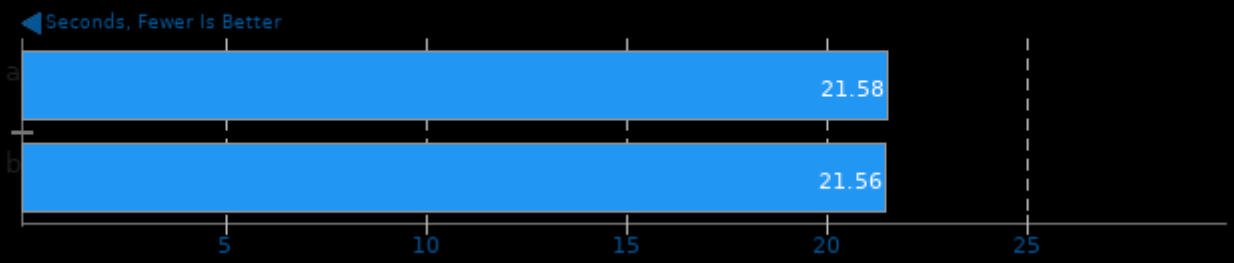
Preset: Exhaustive

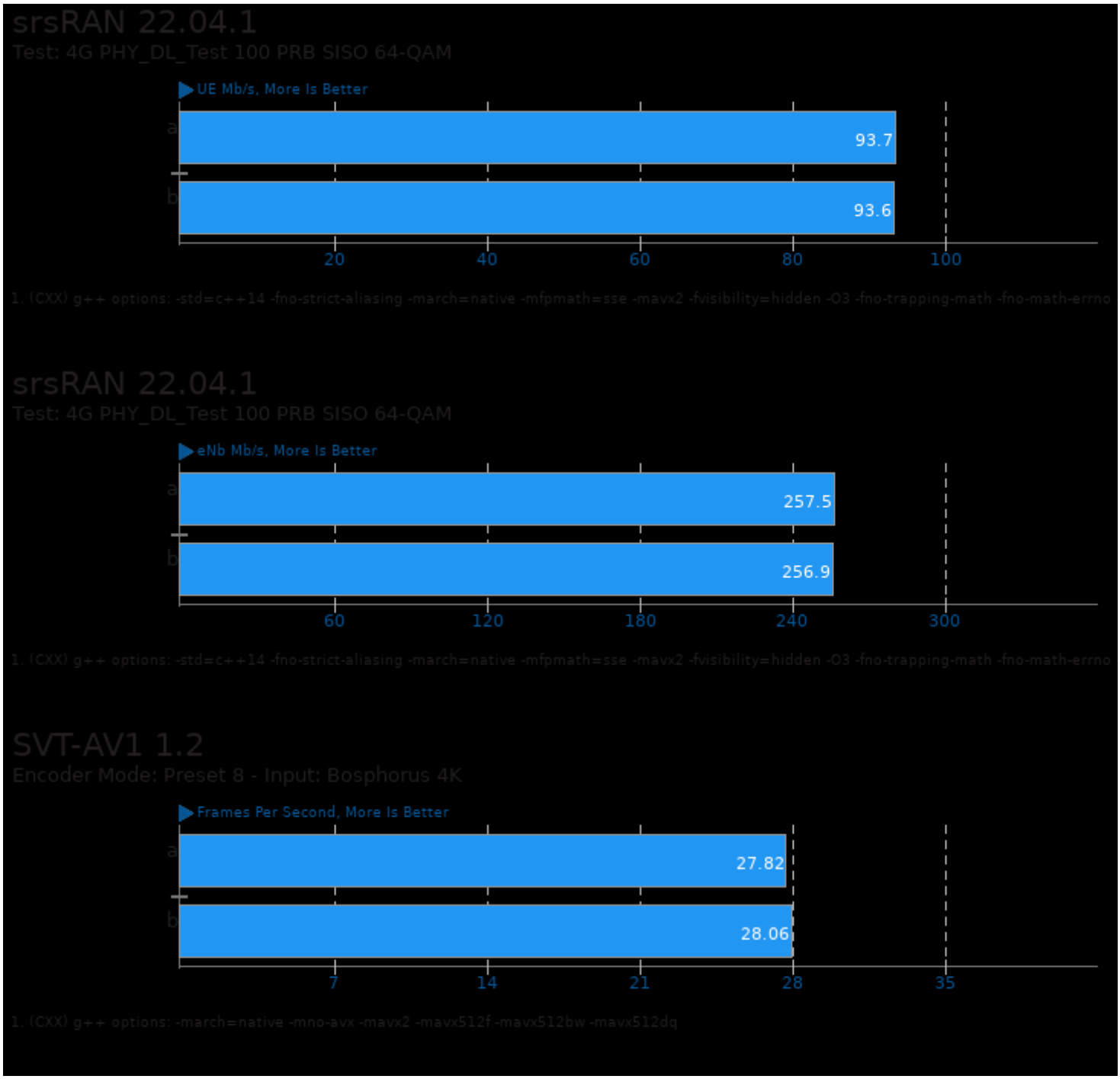


1. (CXX) g++ options: -O3 -flto -pthread

Y-Cruncher 0.7.10.9513

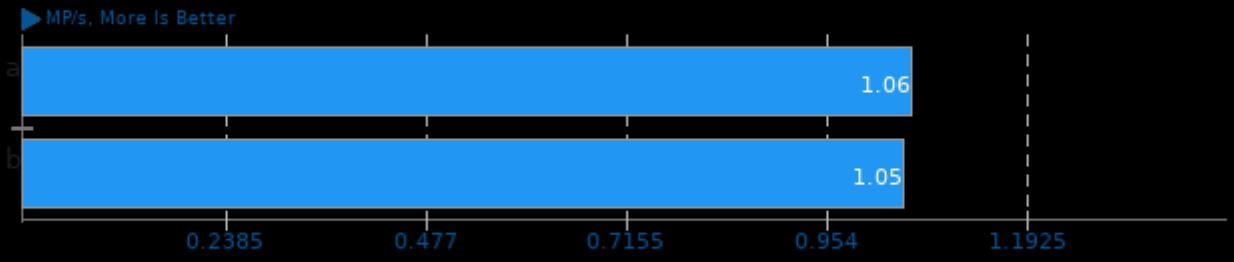
Pi Digits To Calculate: 1B




srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM
UE Mb/s, More Is Better
a
93.7
b
93.6
20
40
60
80
100
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM
eNb Mb/s, More Is Better
a
257.5
b
256.9
60
120
180
240
300
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
SVT-AV1 1.2
Encoder Mode: Preset 8 - Input: Bosphorus 4K
Frames Per Second, More Is Better
a
27.82
b
28.06
7
14
21
28
35
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

WebP Image Encode 1.2.4

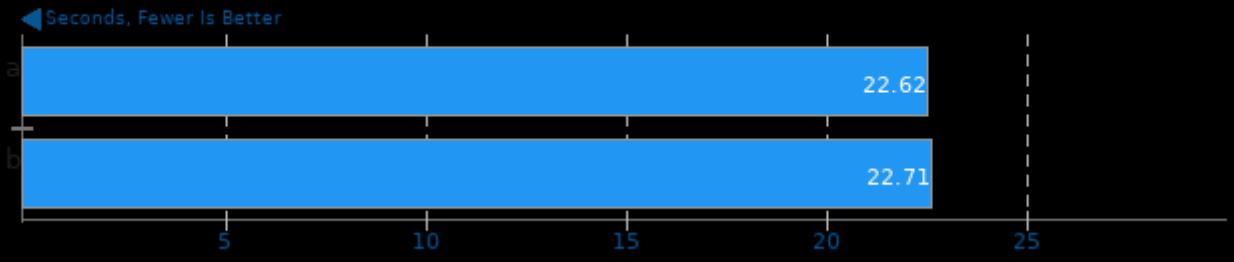
Encode Settings: Quality 100, Lossless



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

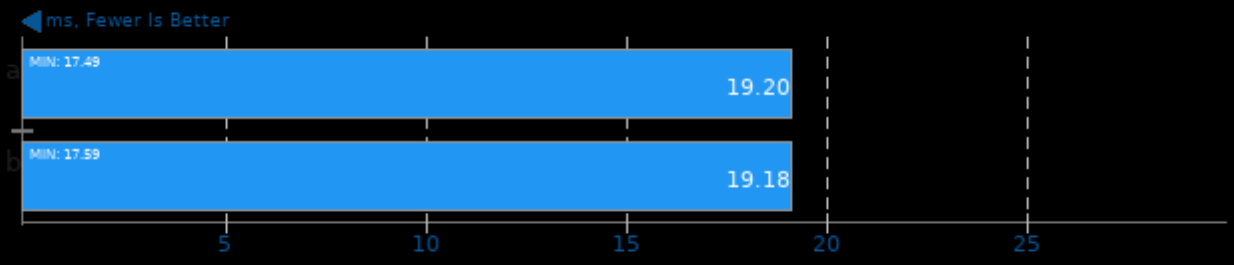
Timed CPython Compilation 3.10.6

Build Configuration: Default



oneDNN 2.7

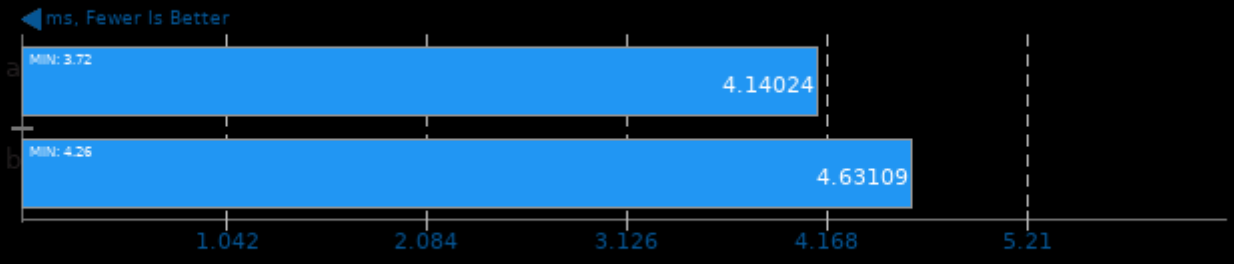
Harness: Deconvolution Batch shapes_1d - Data Type: f32 - Engine: CPU



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

oneDNN 2.7

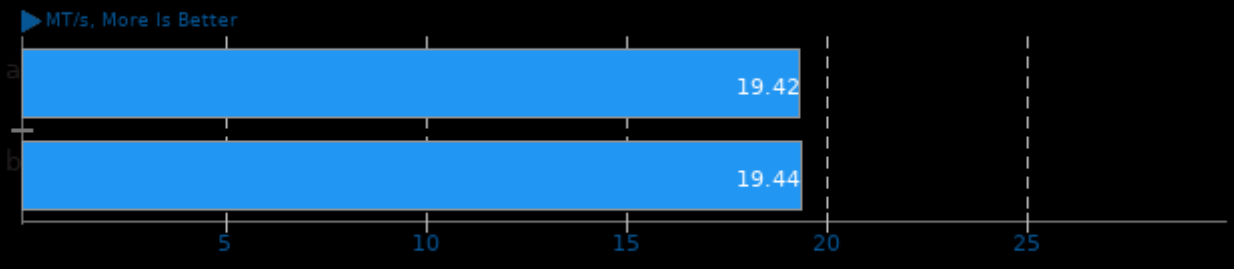
Harness: Deconvolution Batch shapes_1d - Data Type: u8s8f32 - Engine: CPU



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

ASTC Encoder 4.0

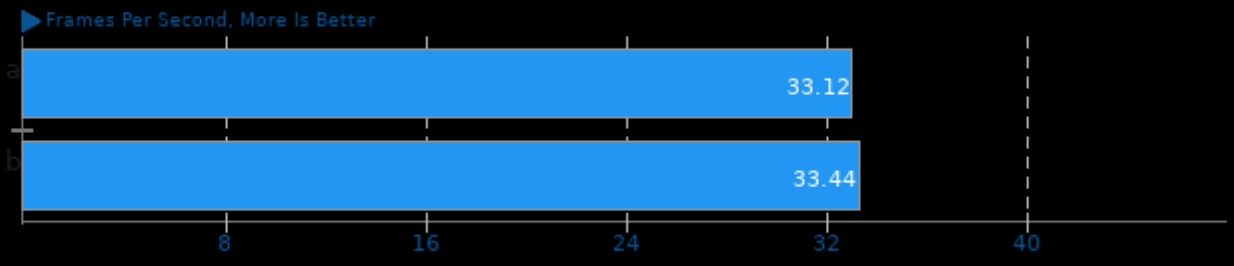
Preset: Thorough



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

AOM AV1 3.5

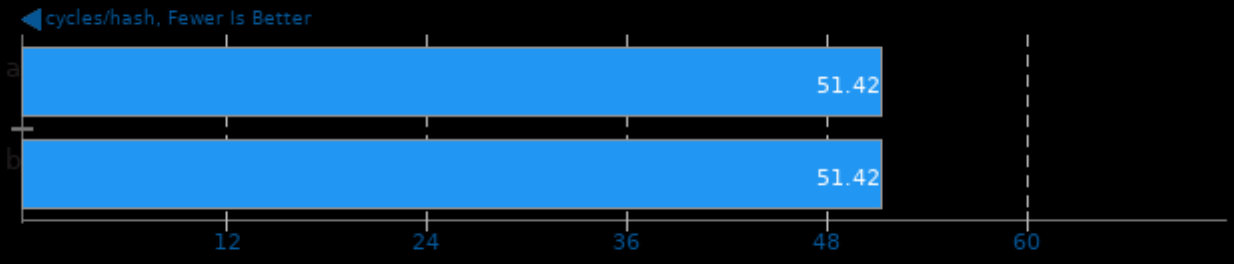
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

SMHasher 2022-08-22

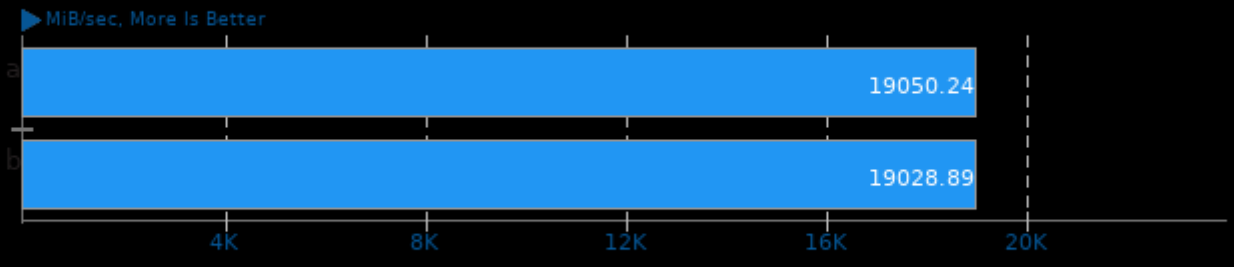
Hash: FarmHash128



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SMHasher 2022-08-22

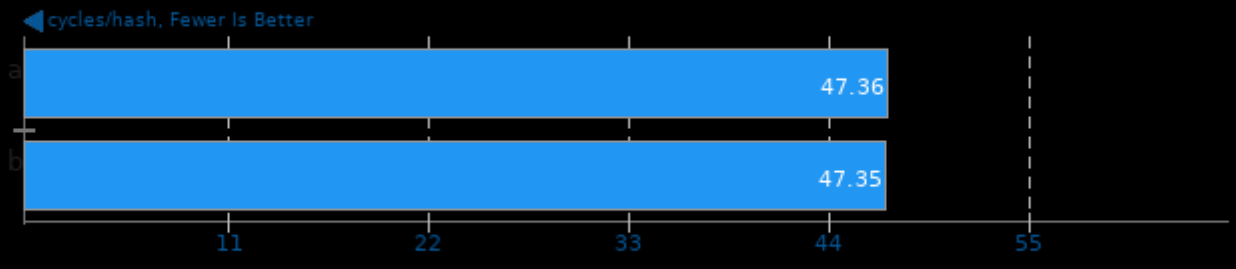
Hash: FarmHash128



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SMHasher 2022-08-22

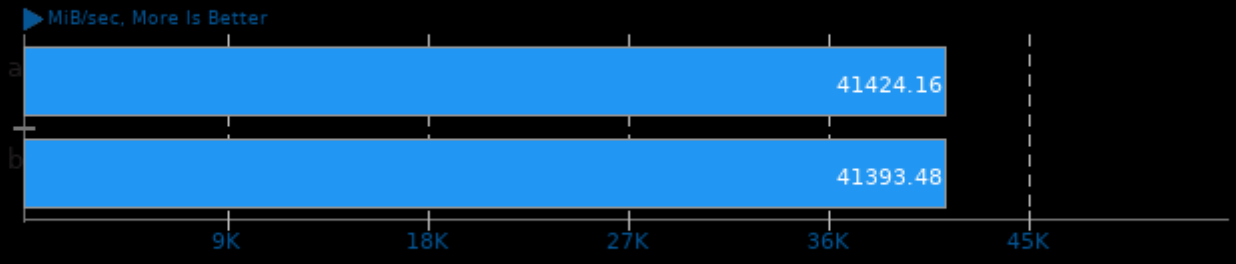
Hash: MeowHash x86_64 AES-NI



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SMHasher 2022-08-22

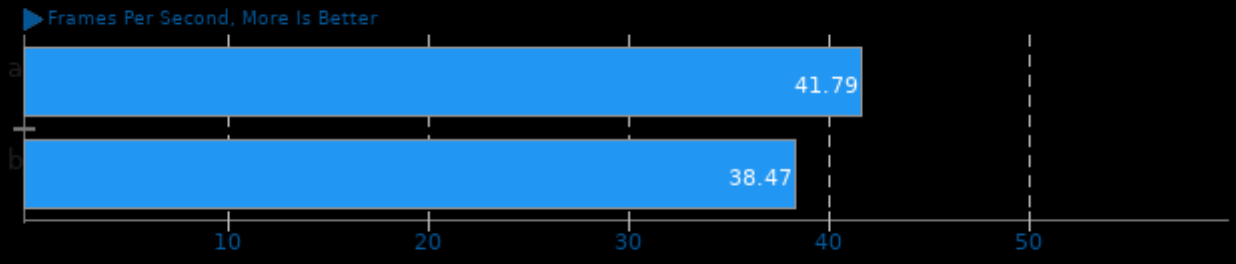
Hash: MeowHash x86_64 AES-NI



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

AOM AV1 3.5

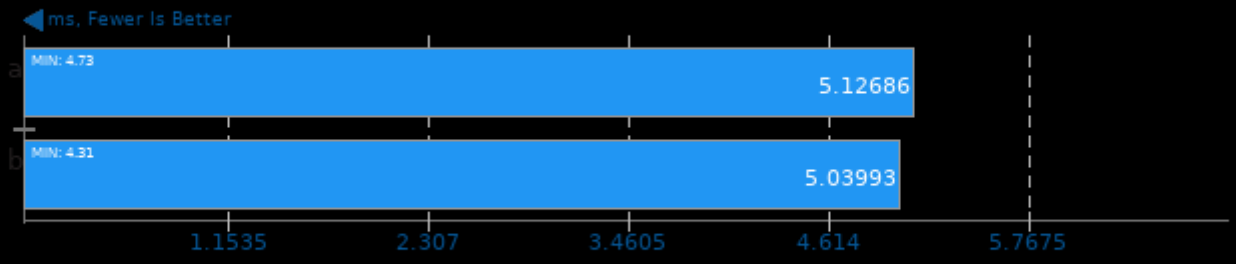
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

oneDNN 2.7

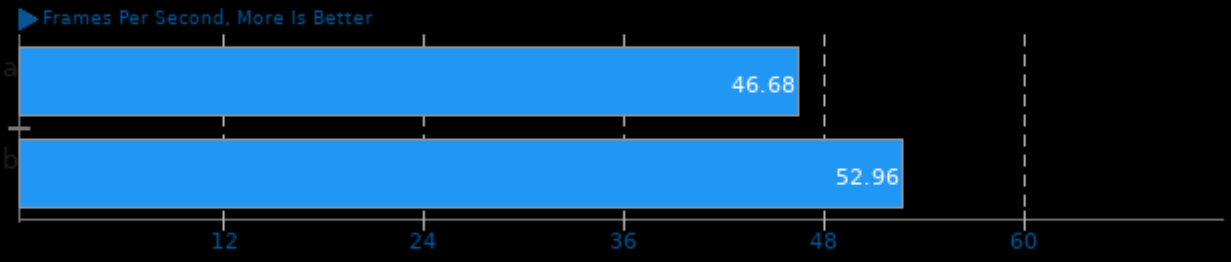
Harness: IP Shapes 1D - Data Type: f32 - Engine: CPU



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

SVT-AV1 1.2

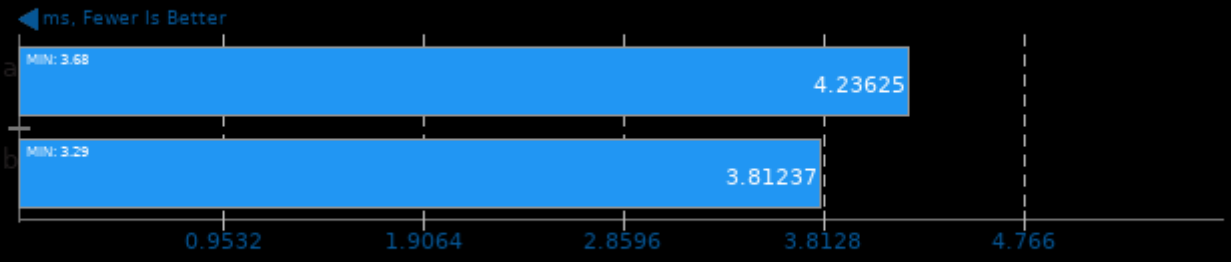
Encoder Mode: Preset 10 - Input: Bosphorus 4K



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

oneDNN 2.7

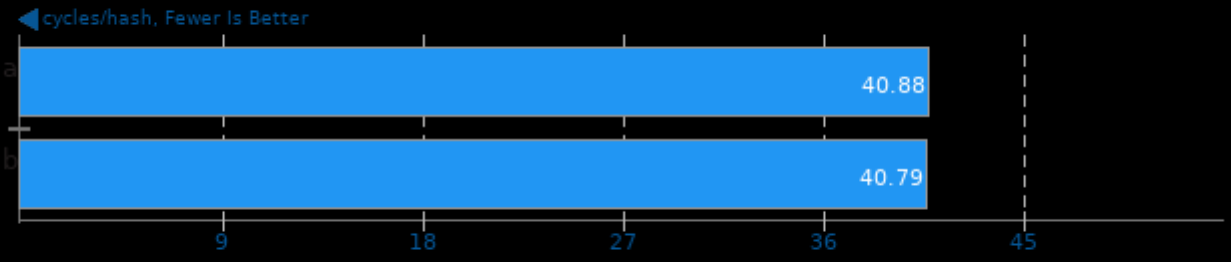
Harness: IP Shapes 1D - Data Type: u8s8f32 - Engine: CPU



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

SMHasher 2022-08-22

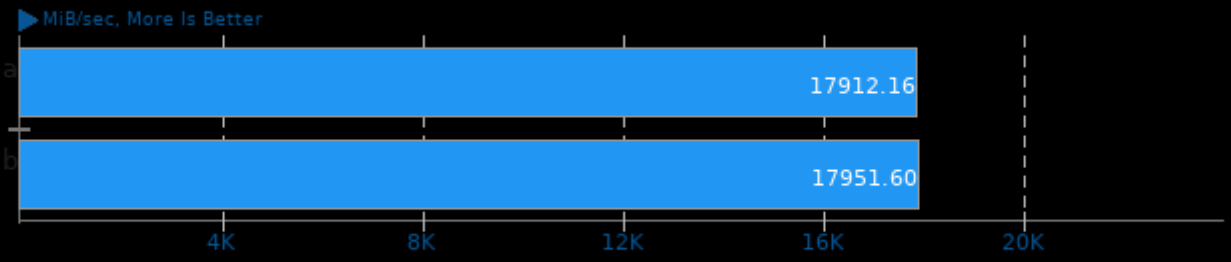
Hash: Spooky32



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SMHasher 2022-08-22

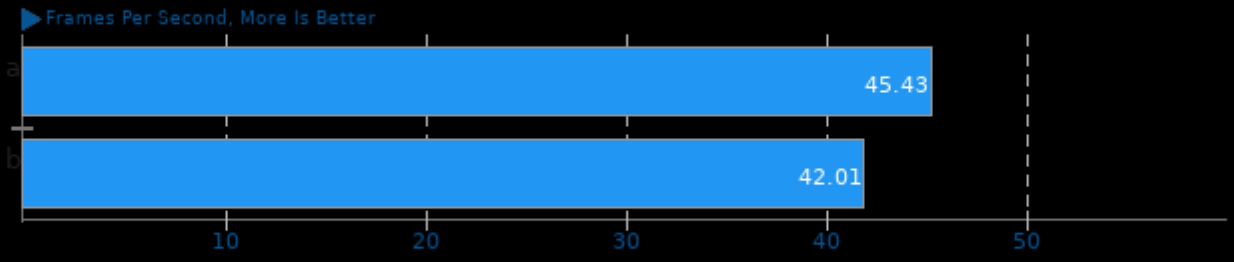
Hash: Spooky32



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

AOM AV1 3.5

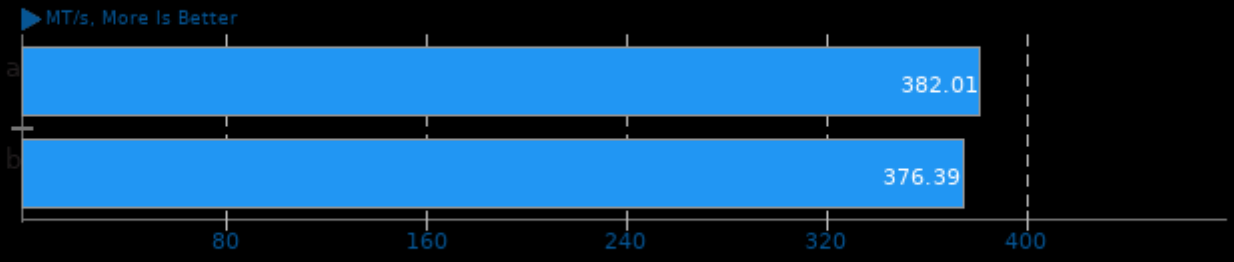
Encoder Mode: Speed 10 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

ASTC Encoder 4.0

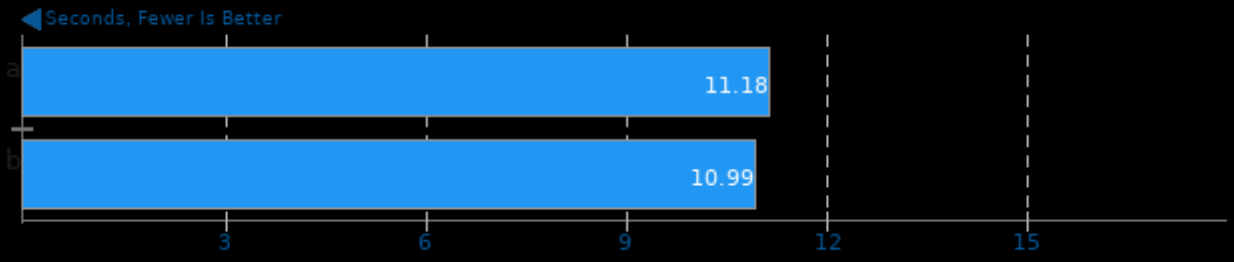
Preset: Fast



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

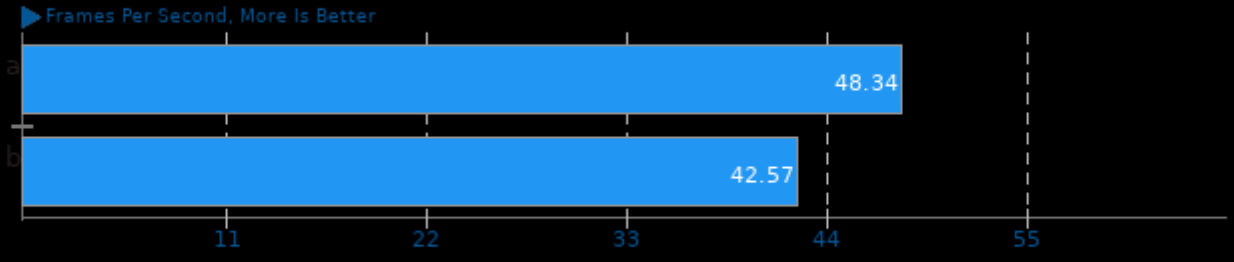
Y-Cruncher 0.7.10.9513

Pi Digits To Calculate: 500M



AOM AV1 3.5

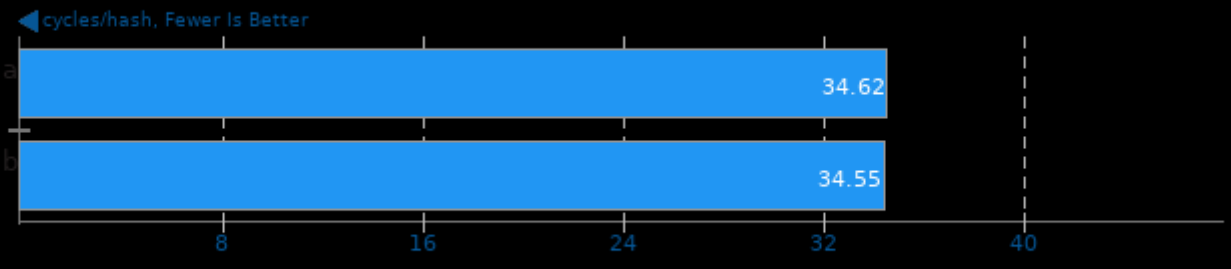
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm

SMHasher 2022-08-22

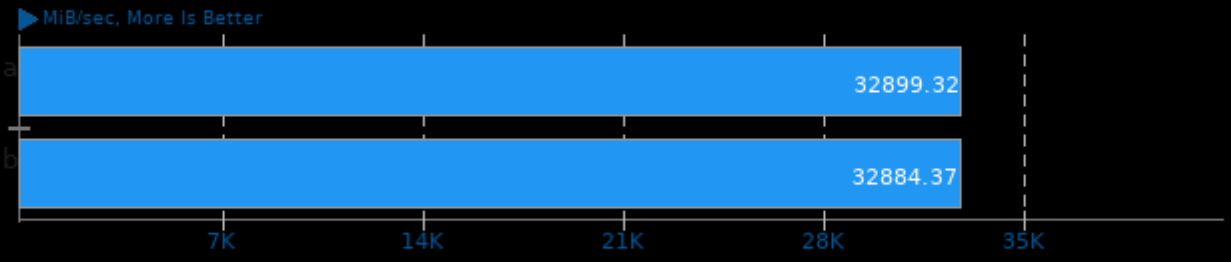
Hash: FarmHash32 x86_64 AVX



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SMHasher 2022-08-22

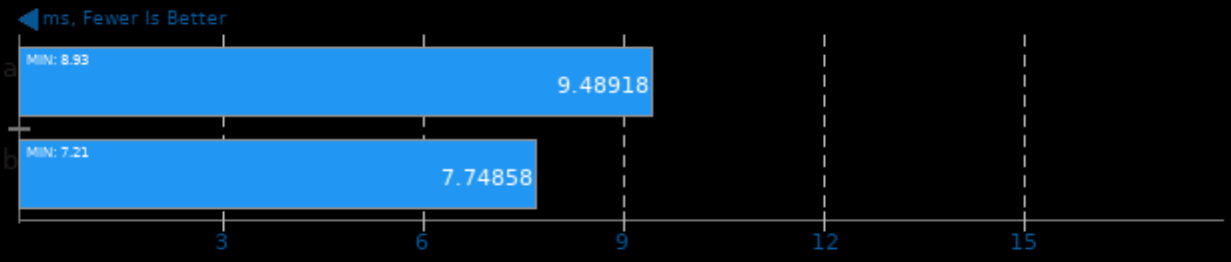
Hash: FarmHash32 x86_64 AVX



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

oneDNN 2.7

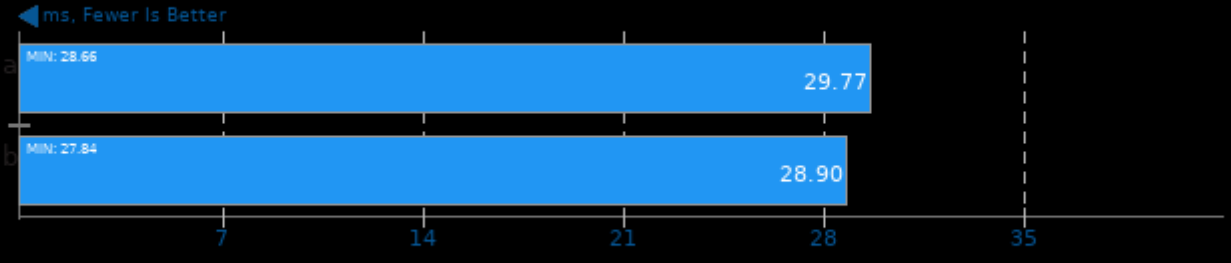
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: f32 - Engine: CPU



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

oneDNN 2.7

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

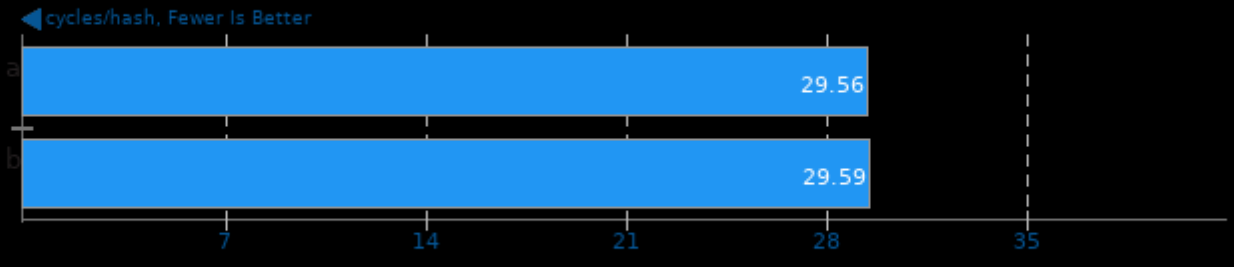


1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -ldl -lpthread

zen 1 epyc

SMHasher 2022-08-22

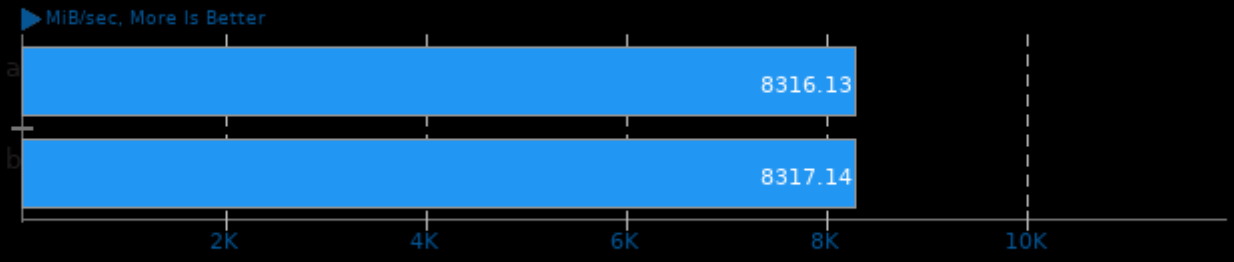
Hash: fasthash32



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SMHasher 2022-08-22

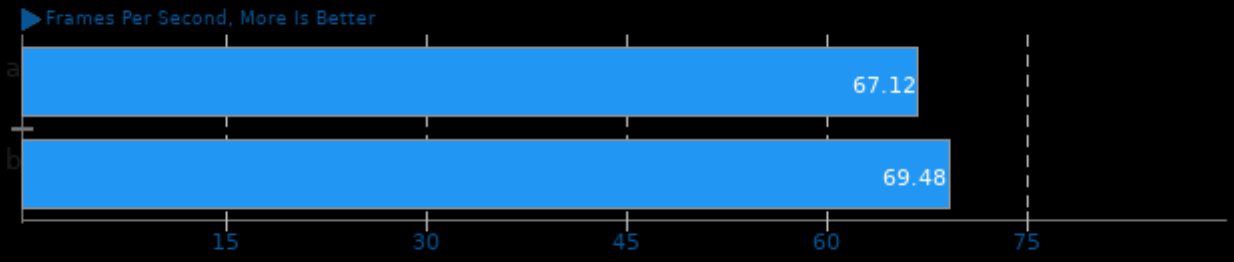
Hash: fasthash32



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SVT-AV1 1.2

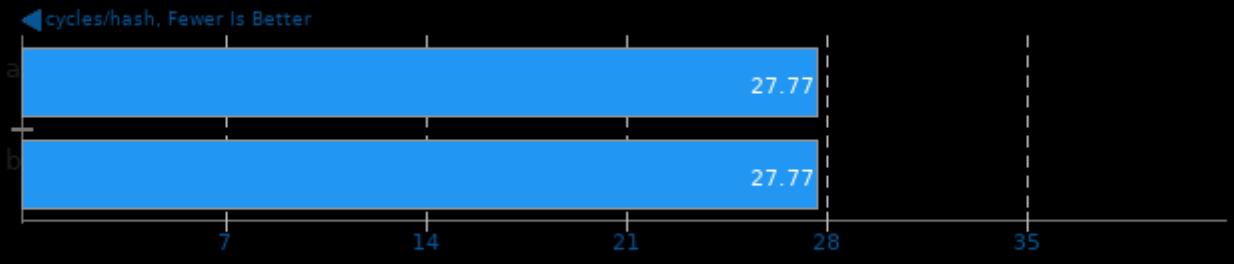
Encoder Mode: Preset 12 - Input: Bosphorus 4K



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

SMHasher 2022-08-22

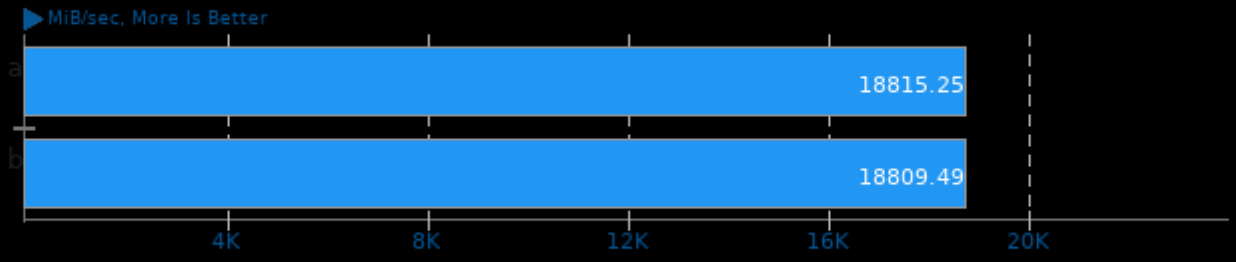
Hash: t1ha2_atonce



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SMHasher 2022-08-22

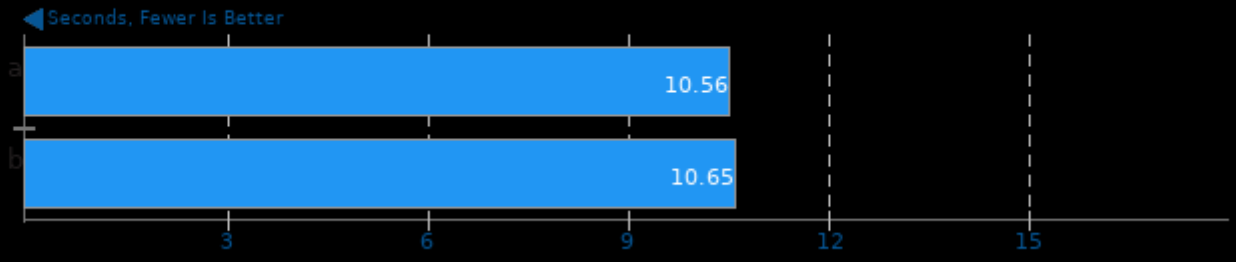
Hash: t1ha2_atonce



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

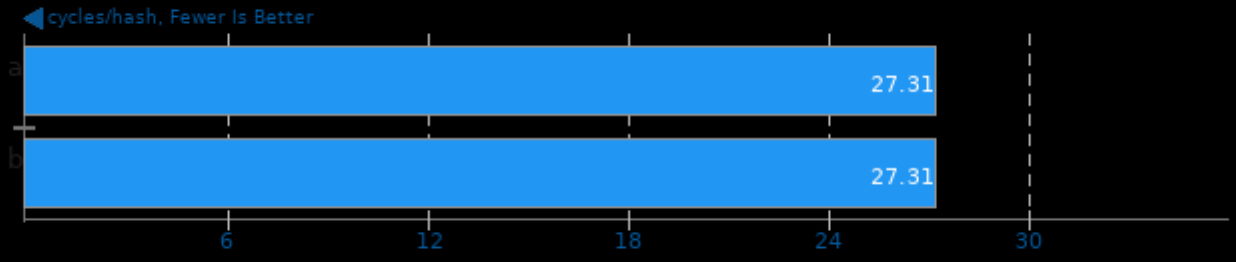
Unpacking The Linux Kernel 5.19

linux-5.19.tar.xz



SMHasher 2022-08-22

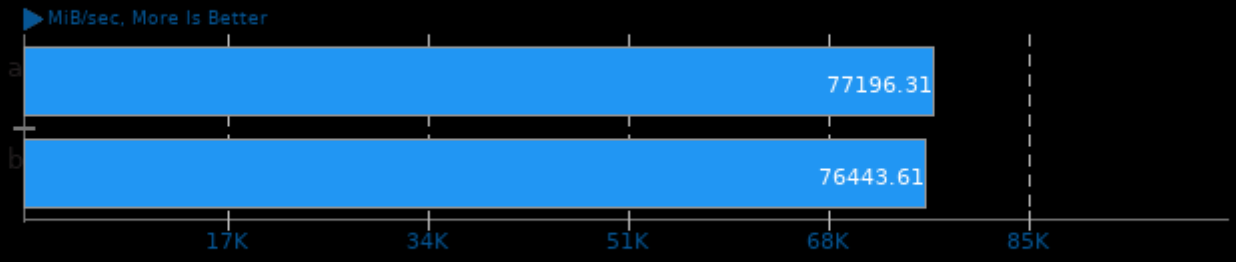
Hash: t1ha0_aes_avx2 x86_64



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SMHasher 2022-08-22

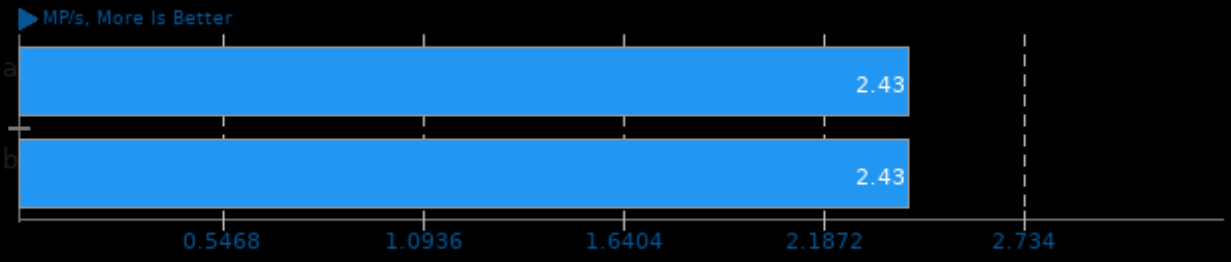
Hash: t1ha0_aes_avx2 x86_64



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

WebP Image Encode 1.2.4

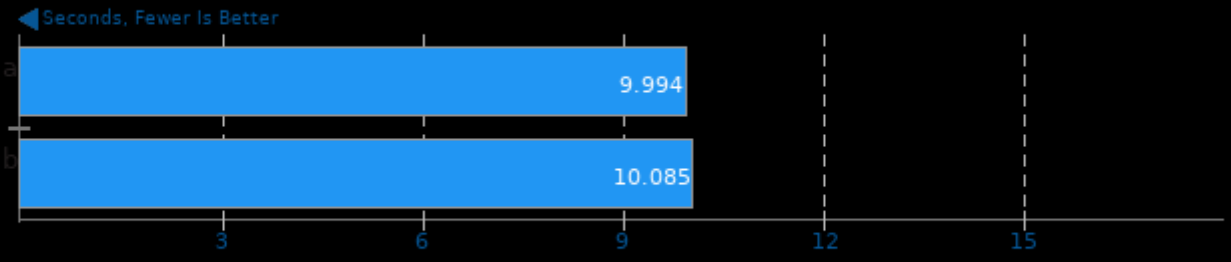
Encode Settings: Quality 100, Highest Compression



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

libavif avifenc 0.11

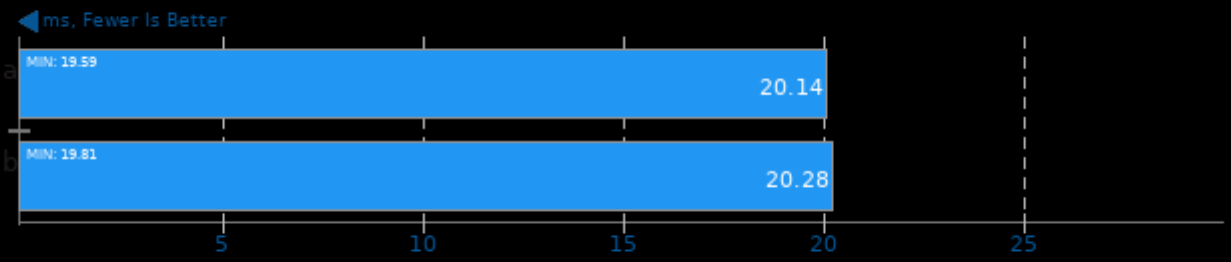
Encoder Speed: 6, Lossless



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

oneDNN 2.7

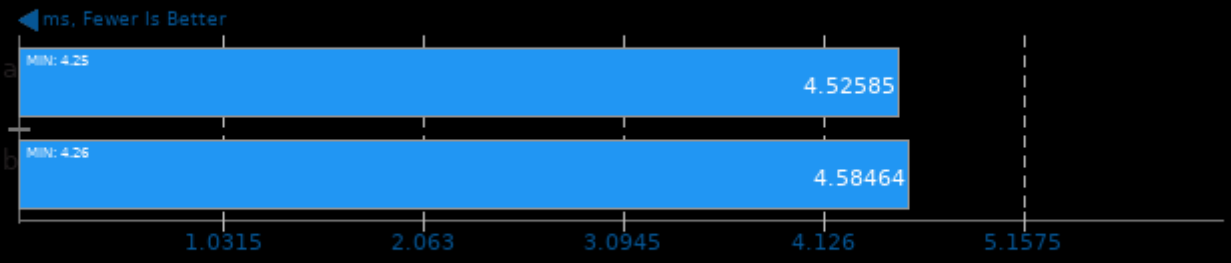
Harness: IP Shapes 3D - Data Type: f32 - Engine: CPU



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

oneDNN 2.7

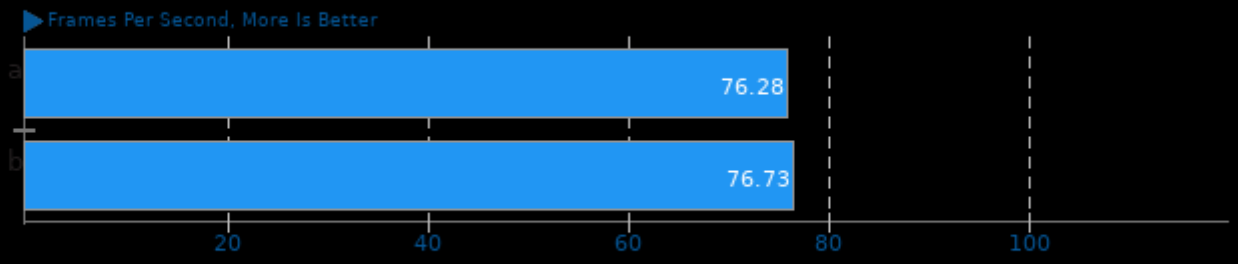
Harness: IP Shapes 3D - Data Type: u8s8f32 - Engine: CPU



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

SVT-AV1 1.2

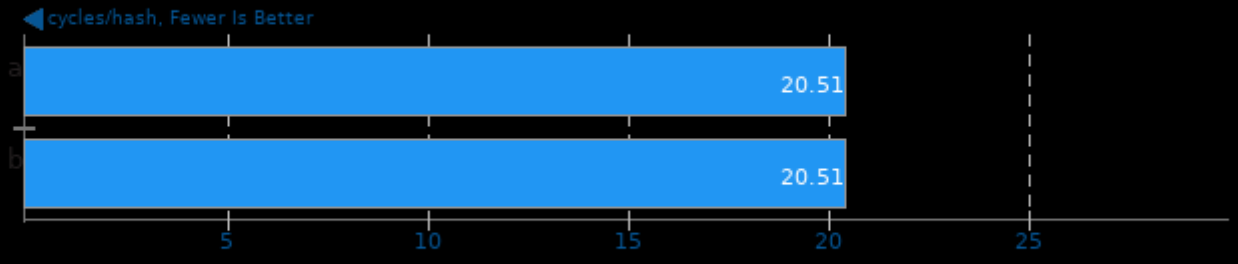
Encoder Mode: Preset 8 - Input: Bosphorus 1080p



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

SMHasher 2022-08-22

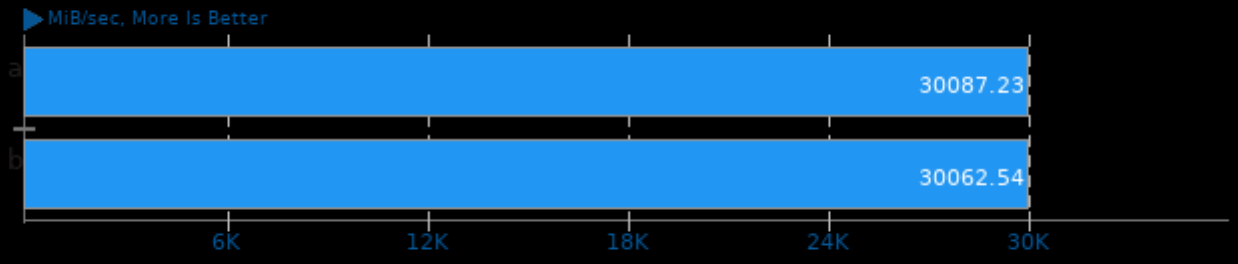
Hash: wyhash



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

SMHasher 2022-08-22

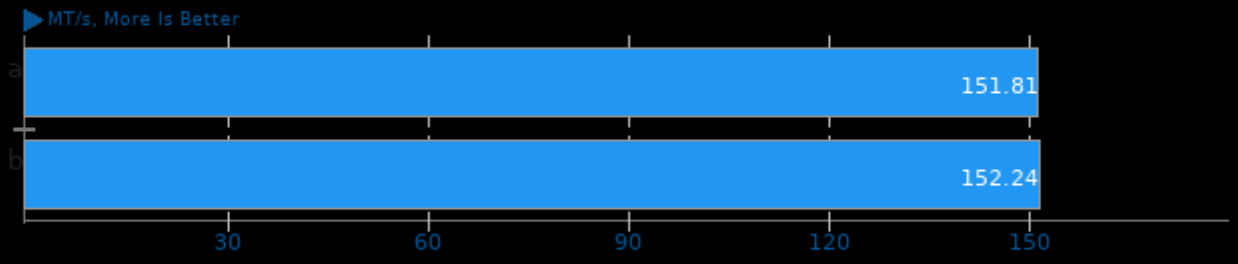
Hash: wyhash



1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects

ASTC Encoder 4.0

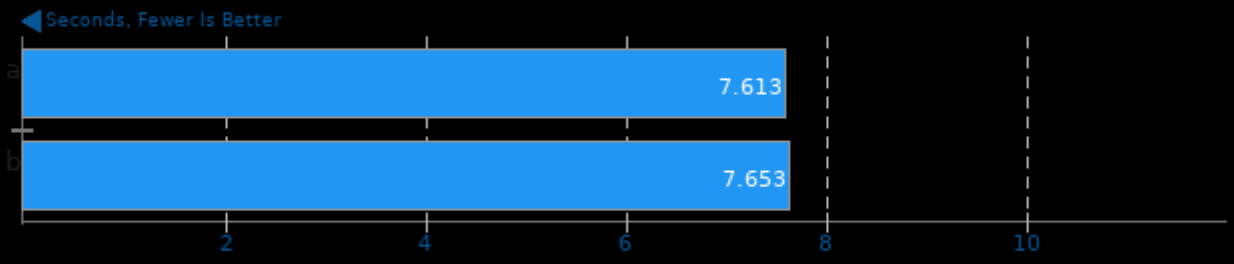
Preset: Medium



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

libavif avifenc 0.11

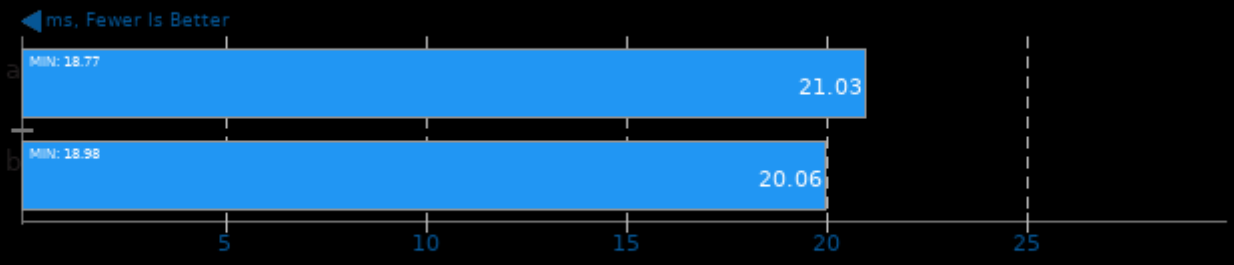
Encoder Speed: 10, Lossless



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

oneDNN 2.7

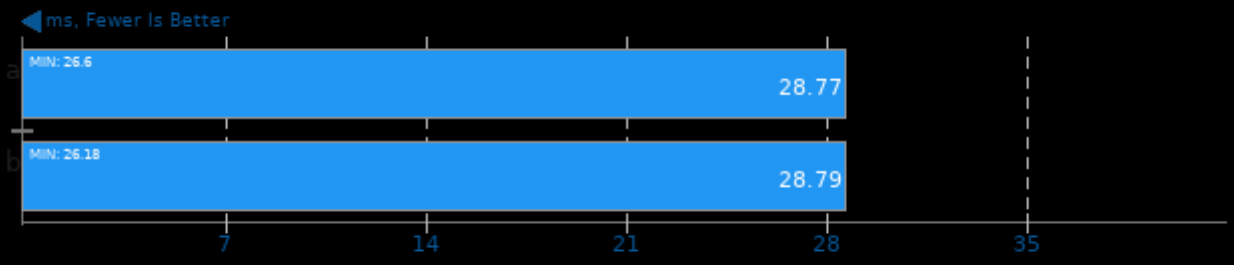
Harness: Convolution Batch Shapes Auto - Data Type: f32 - Engine: CPU



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

oneDNN 2.7

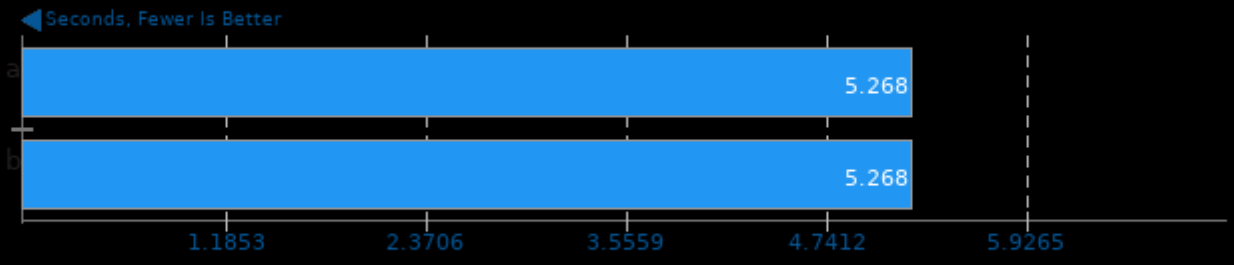
Harness: Convolution Batch Shapes Auto - Data Type: u8s8f32 - Engine: CPU



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

libavif avifenc 0.11

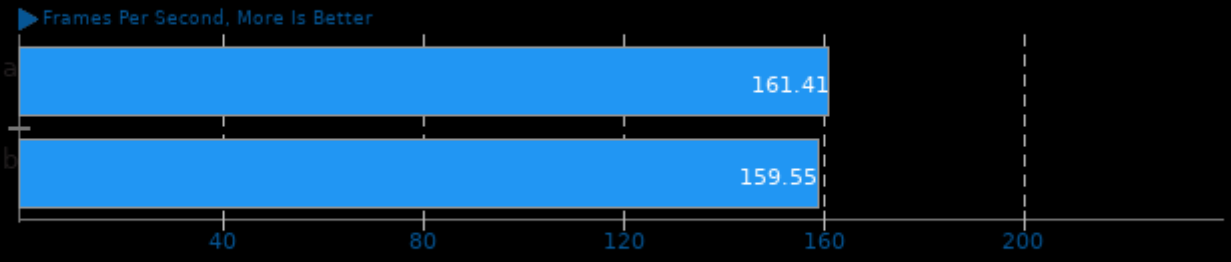
Encoder Speed: 6



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

SVT-AV1 1.2

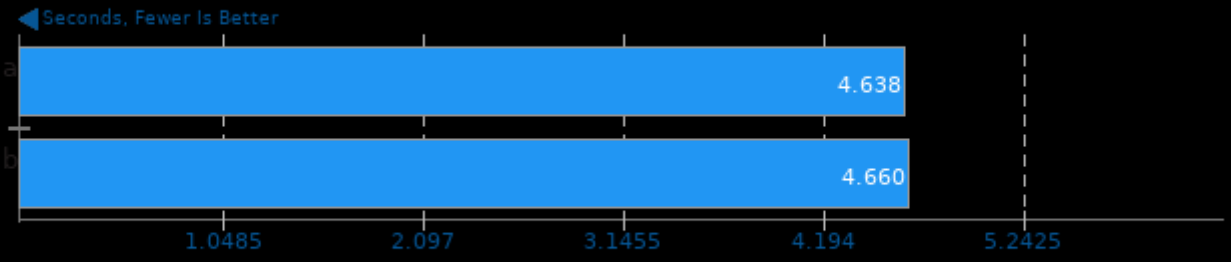
Encoder Mode: Preset 10 - Input: Bosphorus 1080p



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

Primesieve 8.0

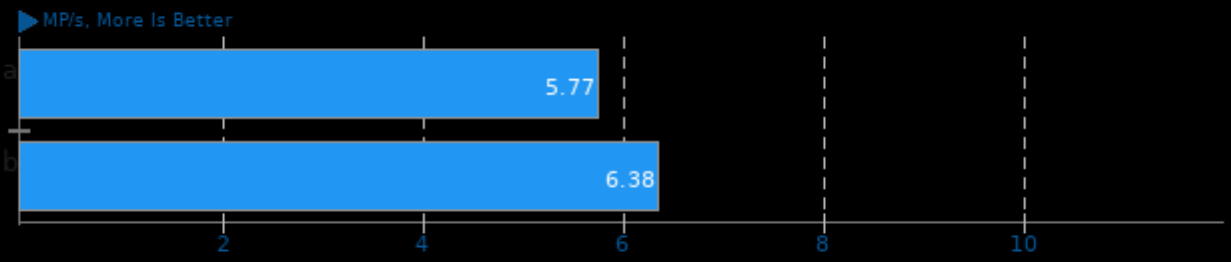
Length: 1e12



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

WebP2 Image Encode 20220823

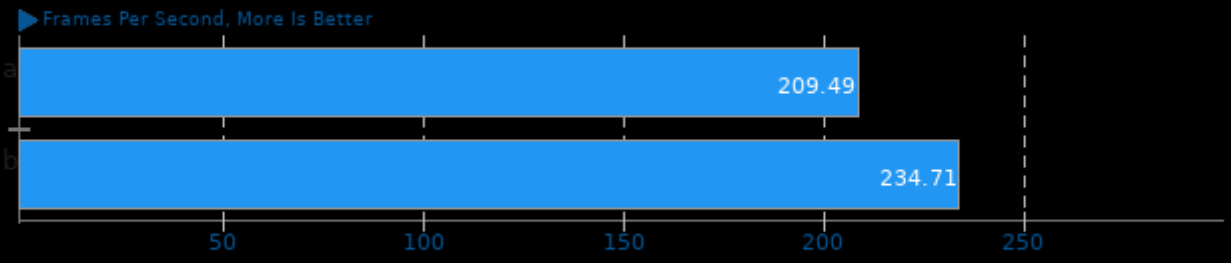
Encode Settings: Default



1. (CXX) g++ options: -msse4.2 -fno-rtti -O3 -ldl

SVT-AV1 1.2

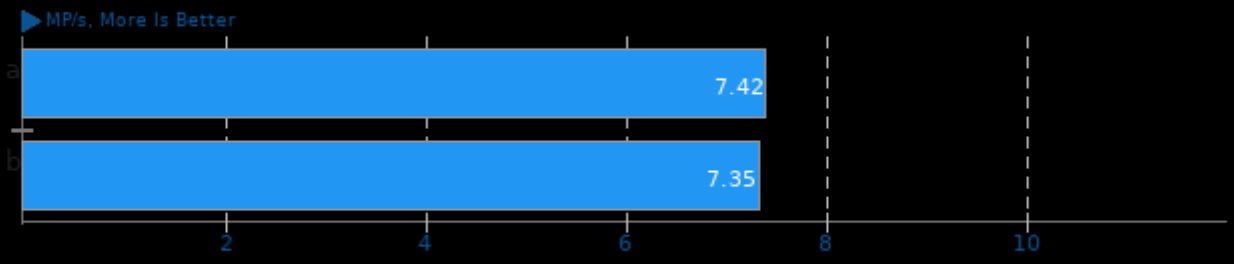
Encoder Mode: Preset 12 - Input: Bosphorus 1080p



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

WebP2 Image Encode 20220823

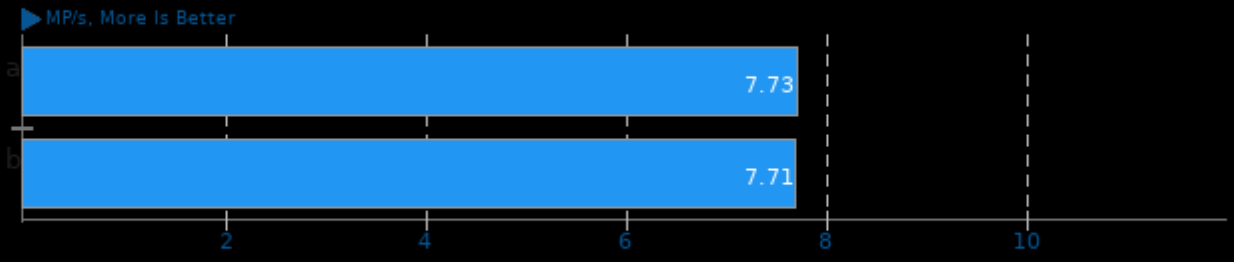
Encode Settings: Quality 100, Compression Effort 5



1. (CXX) g++ options: -msse4.2 -fno-rtti -O3 -ldl

WebP Image Encode 1.2.4

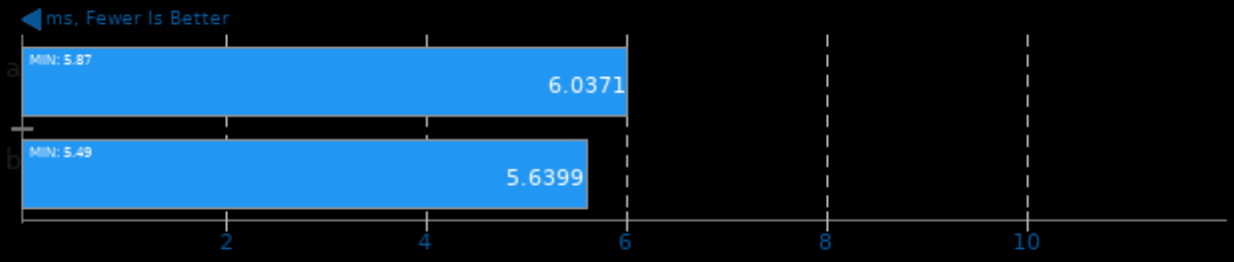
Encode Settings: Quality 100



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

oneDNN 2.7

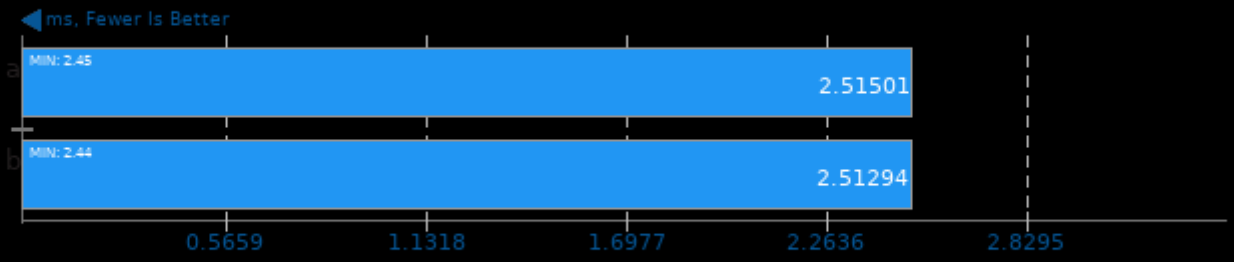
Harness: Deconvolution Batch shapes_3d - Data Type: f32 - Engine: CPU



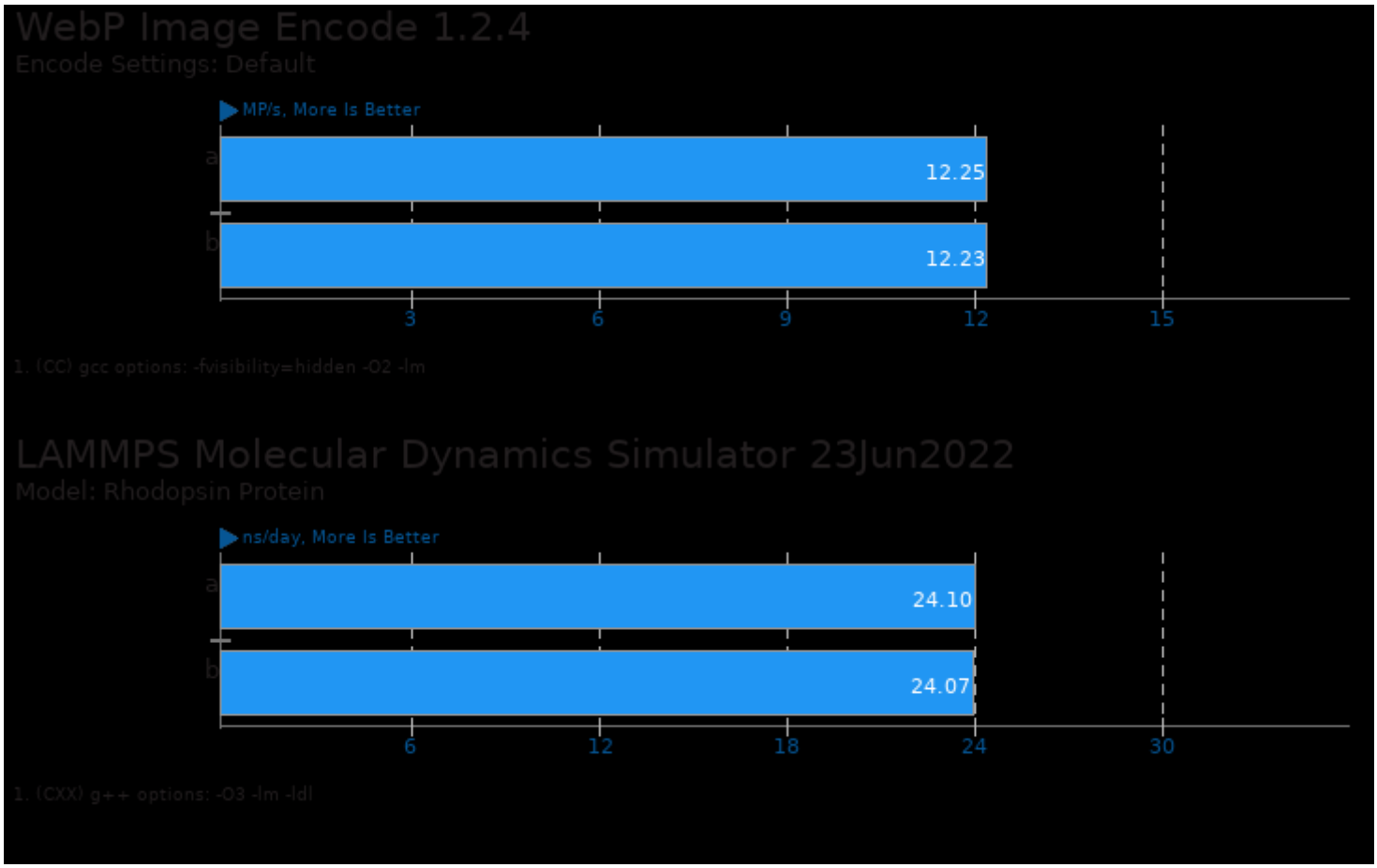
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -ldl -lpthread

oneDNN 2.7

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



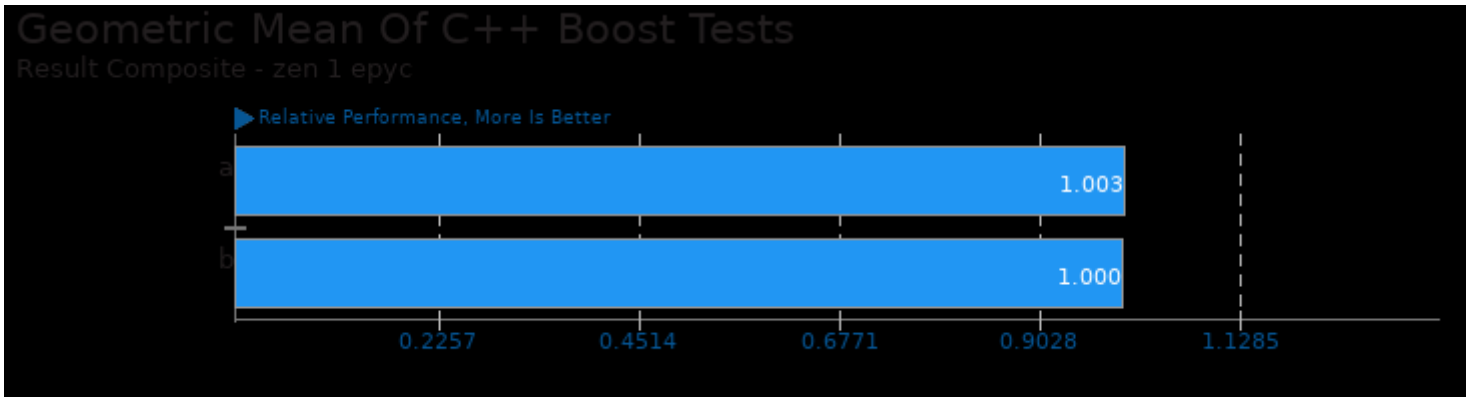
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -ldl -lpthread


WebP Image Encode 1.2.4
Encode Settings: Default
MP/s, More Is Better
a
12.25
b
12.23
3
6
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12
15
1. (CC) gcc options: -fvisibility=hidden -O2 -lm
LAMMPS Molecular Dynamics Simulator 23Jun2022
Model: Rhodopsin Protein
ns/day, More Is Better
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1. (CXX) g++ options: -O3 -lm -ldl

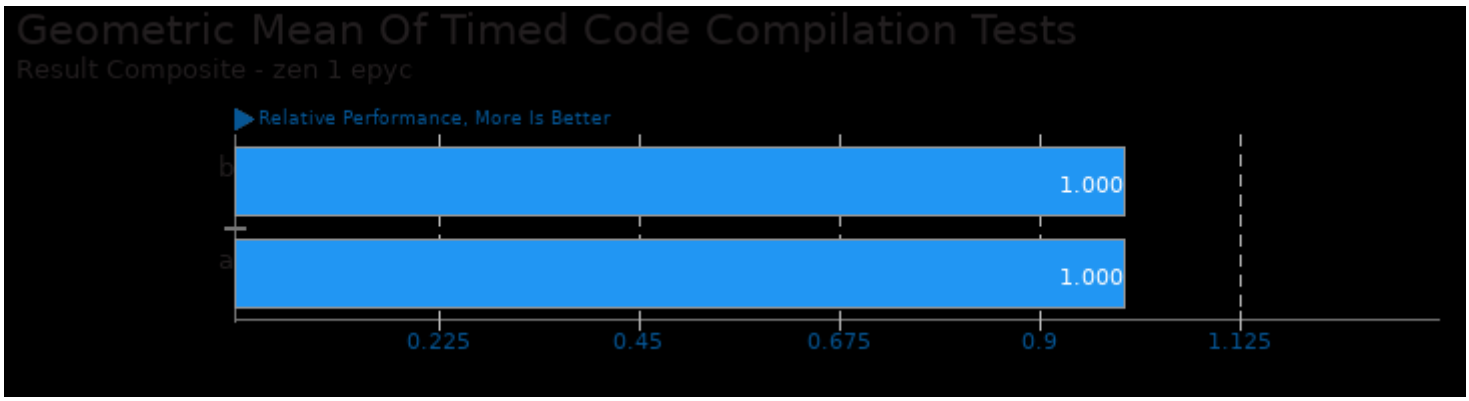
These geometric means are based upon test groupings / test suites for this result file.



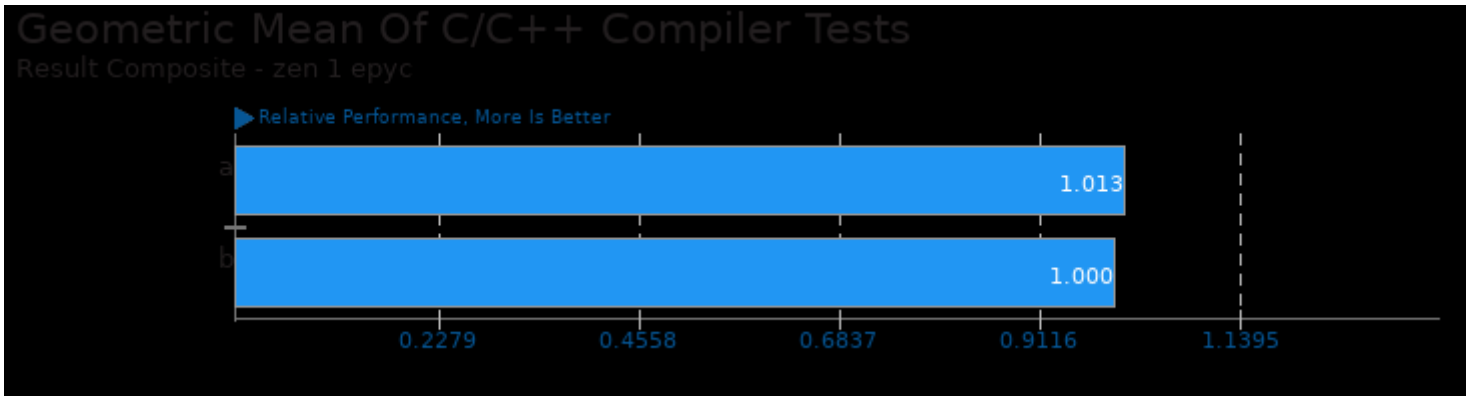
Geometric mean based upon tests: pts/aom-av1, pts/svt-av1 and pts/avifenc



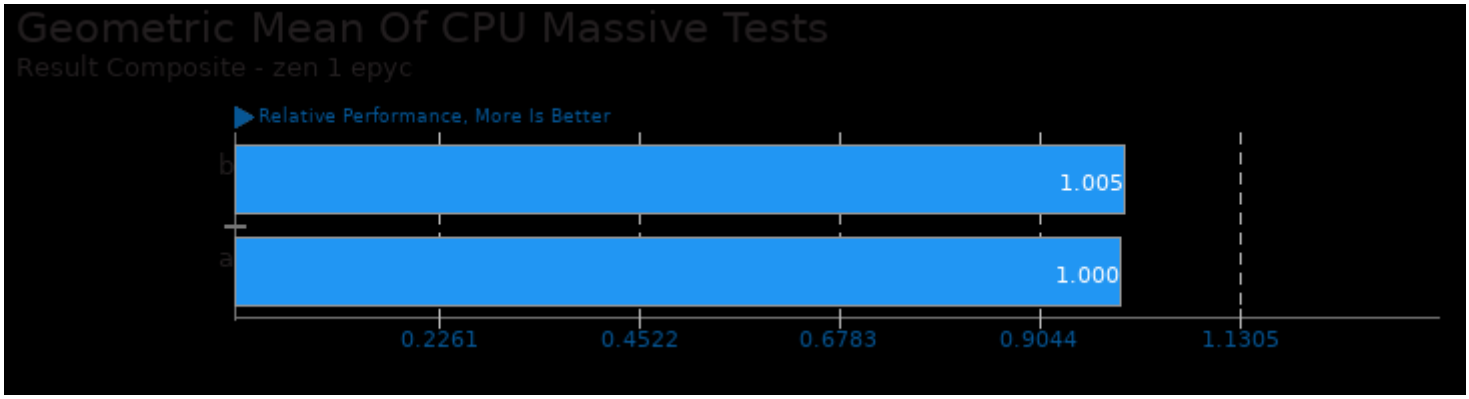
Geometric mean based upon tests: pts/openfoam and pts/srsran



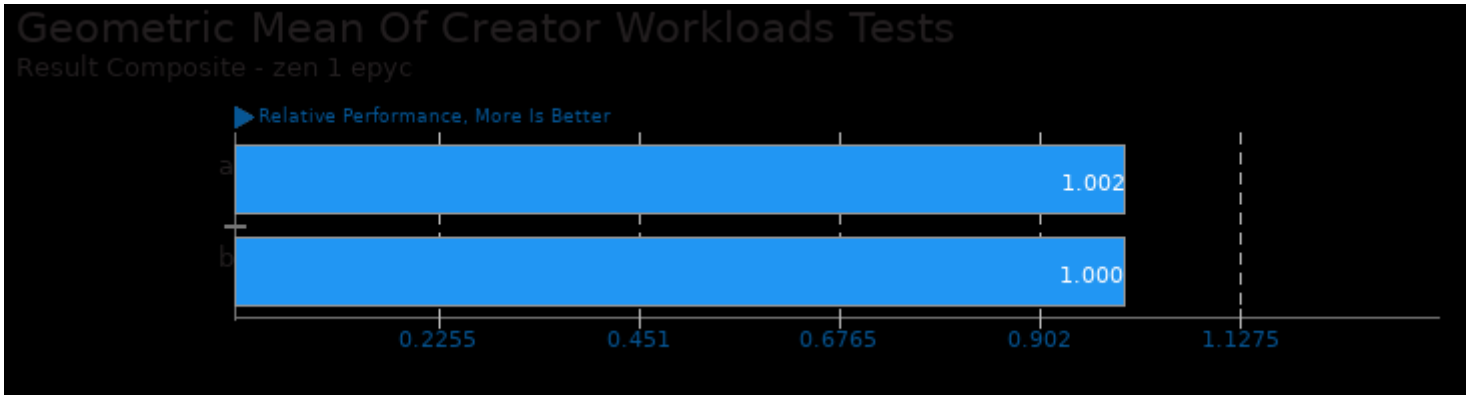
Geometric mean based upon tests: pts/build-php, pts/build-python, pts/build-erlang, pts/build-wasmer and pts/build-nodejs



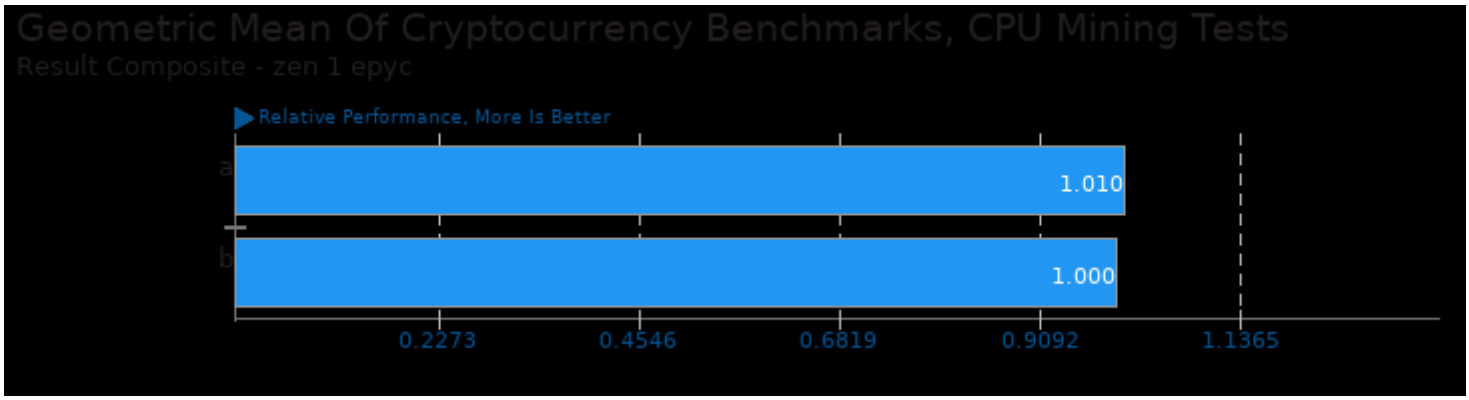
Geometric mean based upon tests: pts/graphics-magick, pts/build-php, pts/encode-flac, pts/nginx, pts/lammps, pts/aircrack-ng, pts/aom-av1, pts/svt-av1 and pts/smhasher



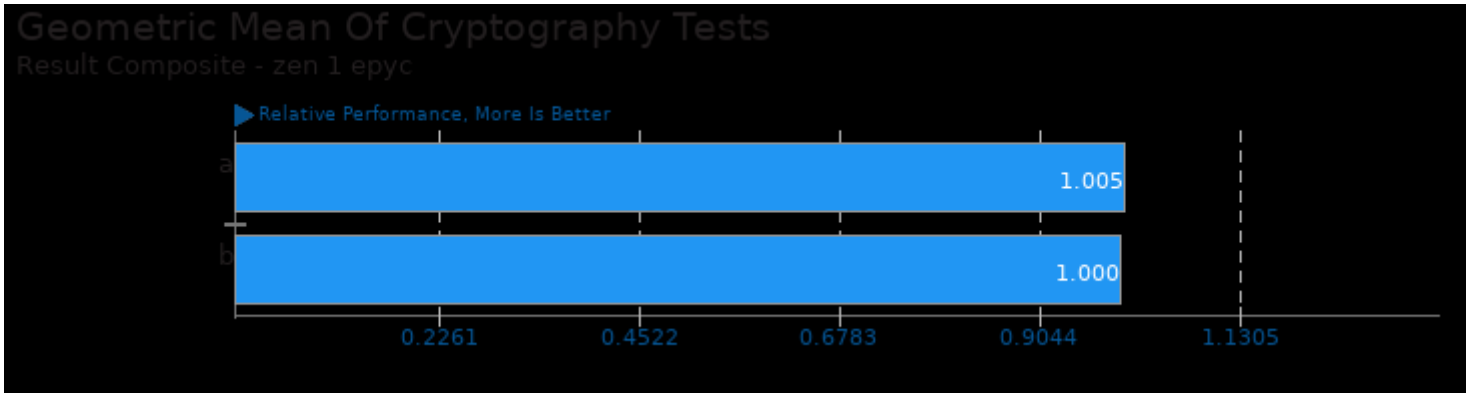
Geometric mean based upon tests: pts/brl-cad, pts/build-php, pts/svt-av1, pts/encode-flac, pts/graphics-magick, pts/lammps, pts/onednn, pts/nginx, pts/primesieve, pts/stress-ng, pts/tensorflow, pts/blender and pts/cpuminer-opt



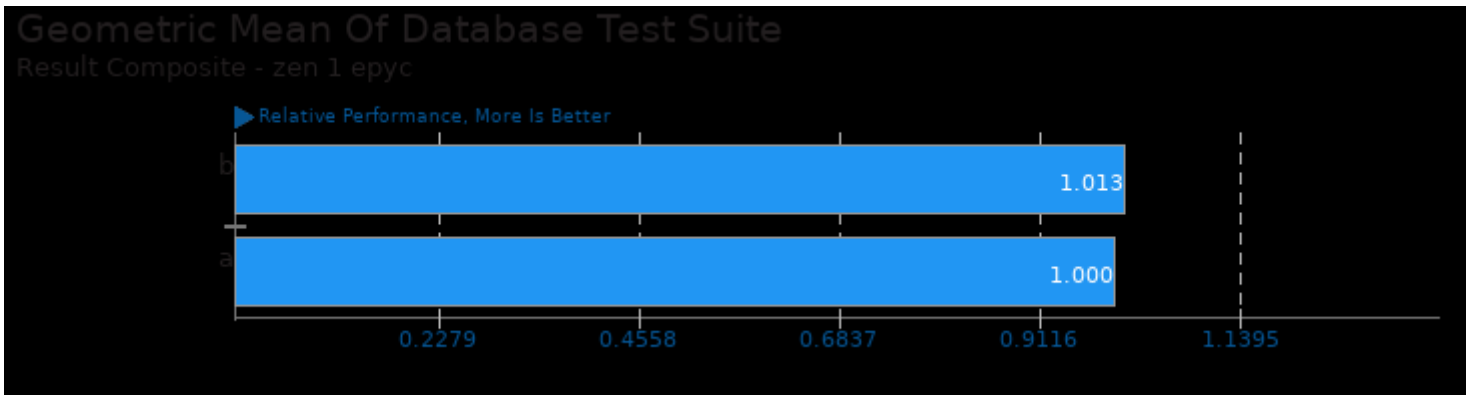
Geometric mean based upon tests: pts/ospray-studio, pts/blender, pts/natron, pts/ffmpeg, pts/aom-av1, pts/svt-av1, pts/avifenc, pts/encode-flac, pts/graphics-magick, pts/webp, pts/webp2, pts/jpegxl, pts/jpegxl-decode, pts/onednn, pts/openvino, pts/astcenc and pts/brl-cad



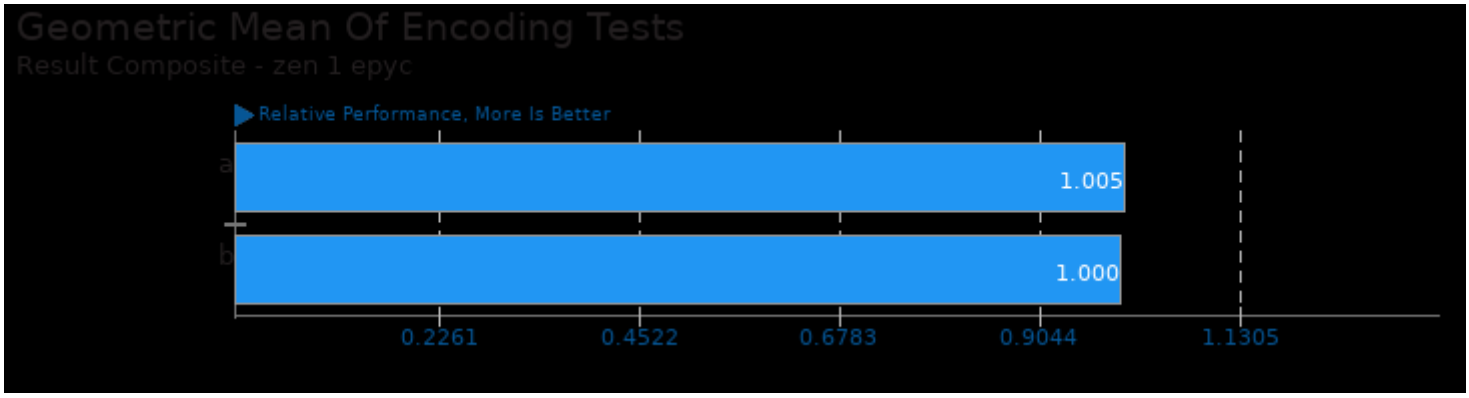
Geometric mean based upon tests: pts/cpuminer-opt and pts/xmrig



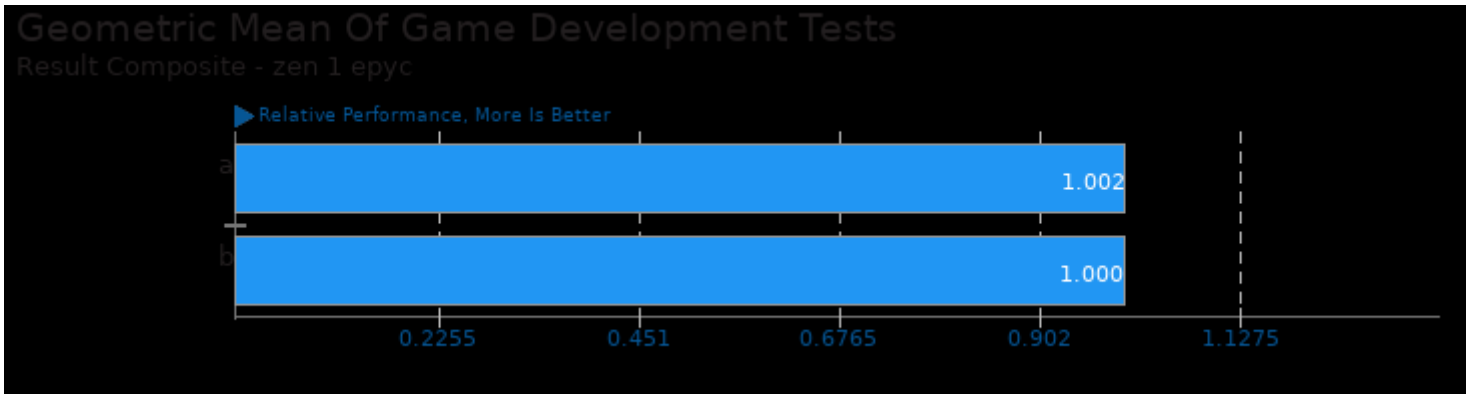
Geometric mean based upon tests: pts/smhasher, pts/aircrack-ng, pts/cpuminer-opt and pts/xmrig



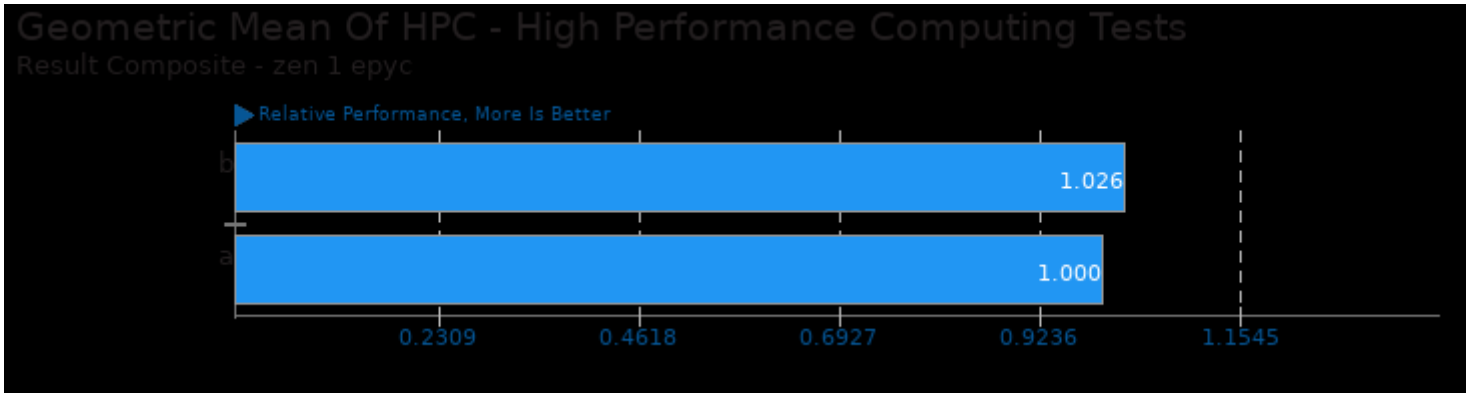
Geometric mean based upon tests: pts/rocksdb and pts/clickhouse



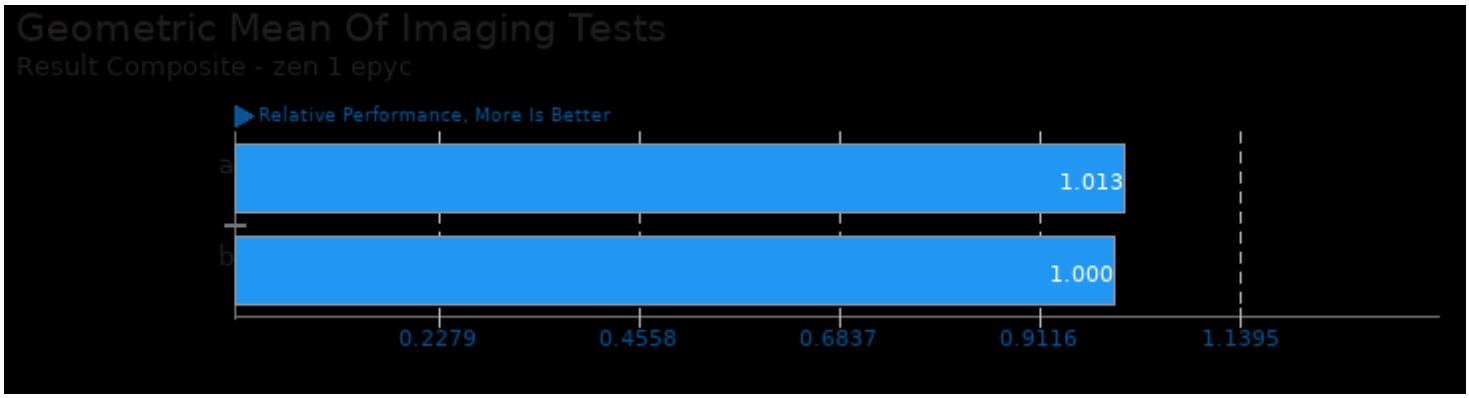
Geometric mean based upon tests: pts/encode-flac, pts/ffmpeg, pts/aom-av1, pts/svt-av1 and pts/avifenc



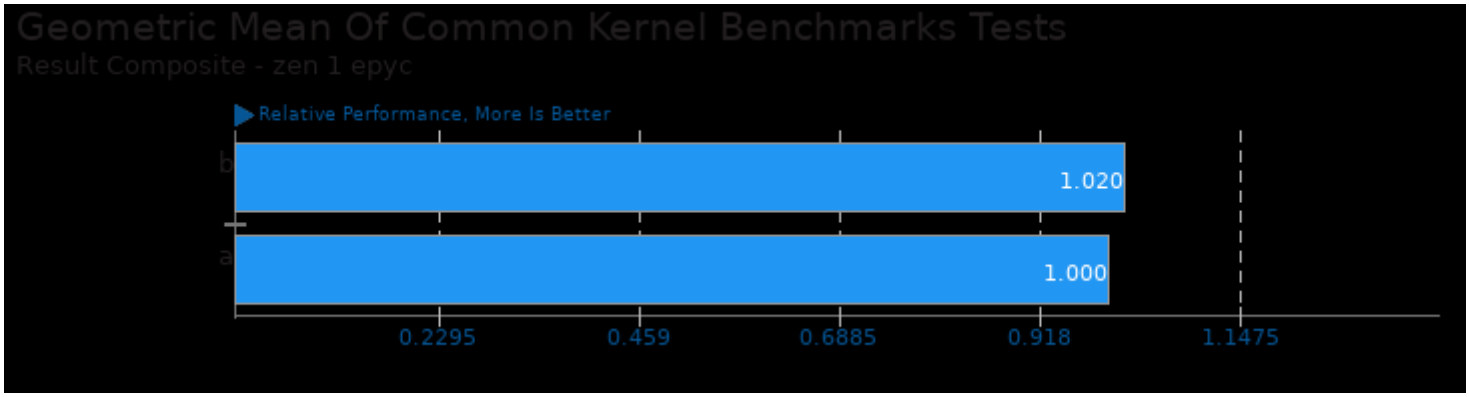
Geometric mean based upon tests: pts/astcenc and pts/blender



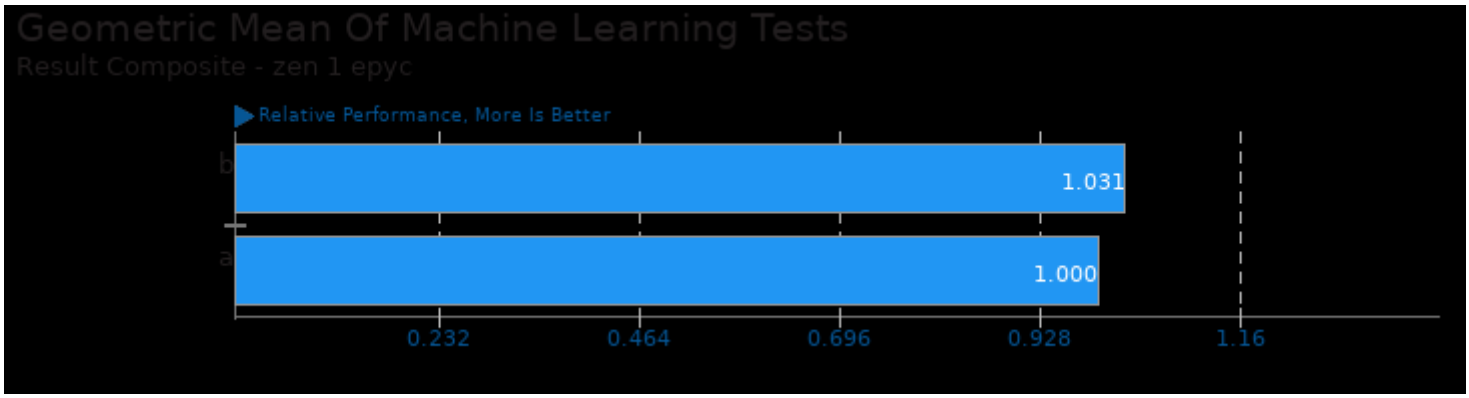
Geometric mean based upon tests: pts/lammps, pts/openfoam, pts/mnn, pts/ncnn, pts/ai-benchmark, pts/tensorflow, pts/onednn, pts/openvino, pts/spacy, pts/deepsparse, pts/openradioss, pts/nekrs and pts/minibude



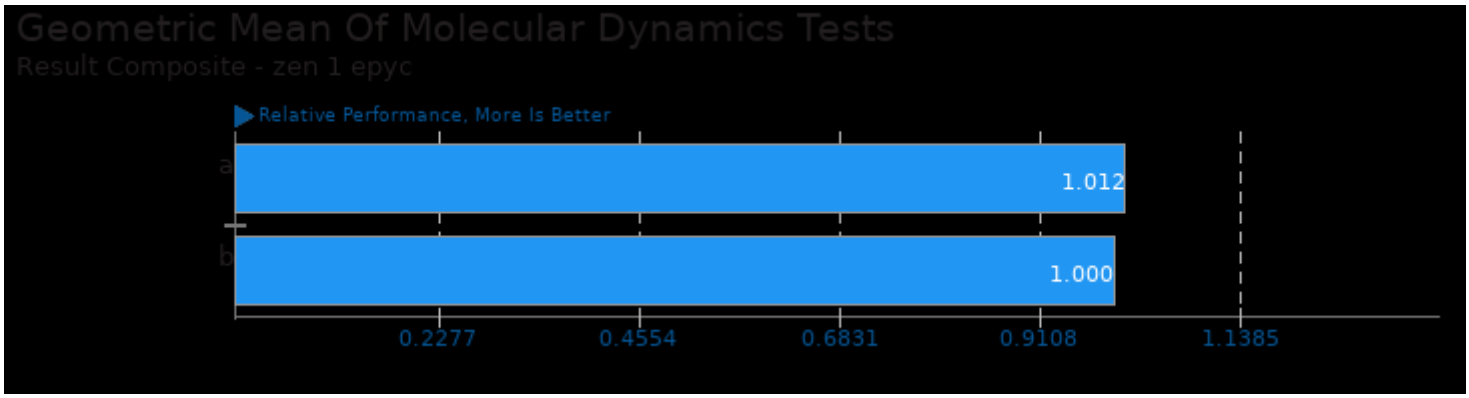
Geometric mean based upon tests: pts/graphics-magick, pts/webp, pts/webp2, pts/jpegxl, pts/jpegxl-decode and pts/avifenc



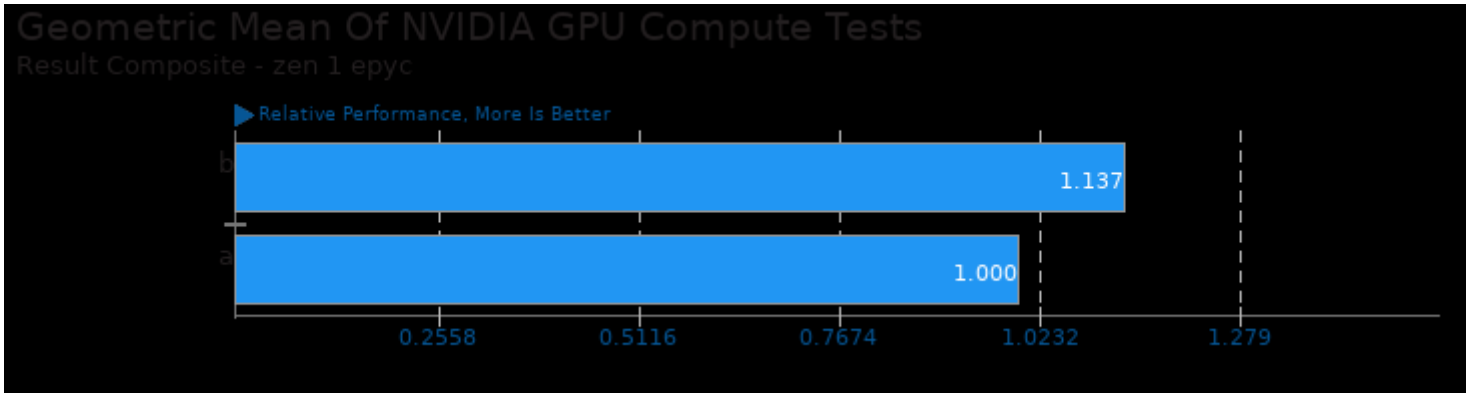
Geometric mean based upon tests: pts/stress-ng and pts/rocksdb



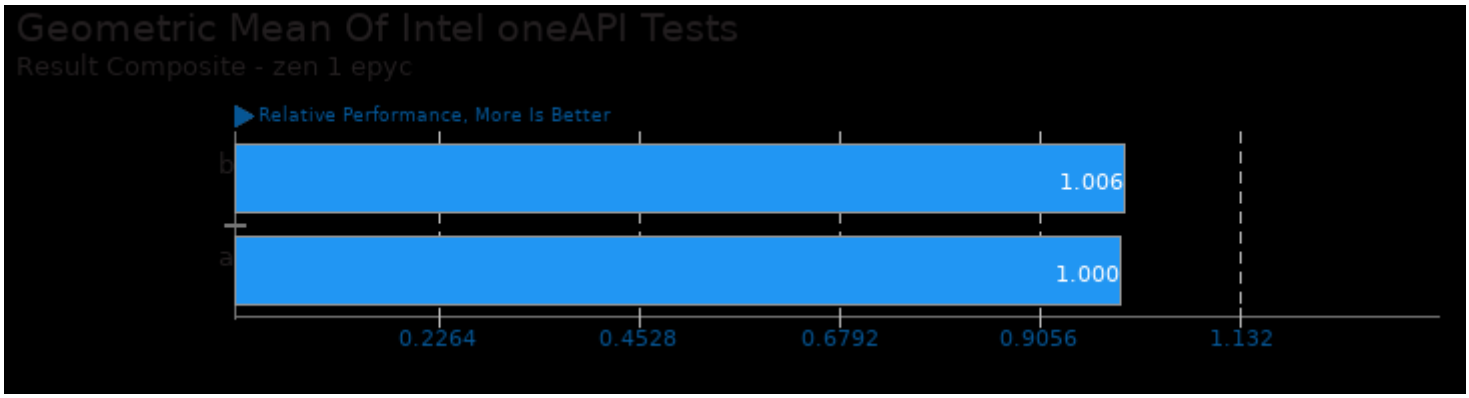
Geometric mean based upon tests: pts/mnn, pts/ncnn, pts/ai-benchmark, pts/tensorflow, pts/onednn, pts/openvino, pts/spacy and pts/deepsparse



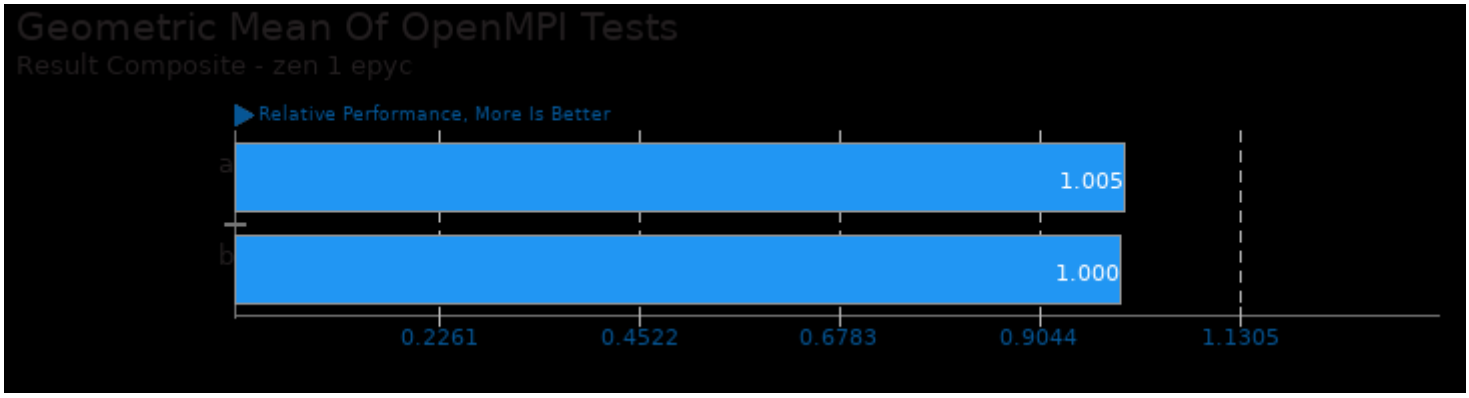
Geometric mean based upon tests: pts/lammps and pts/openfoam



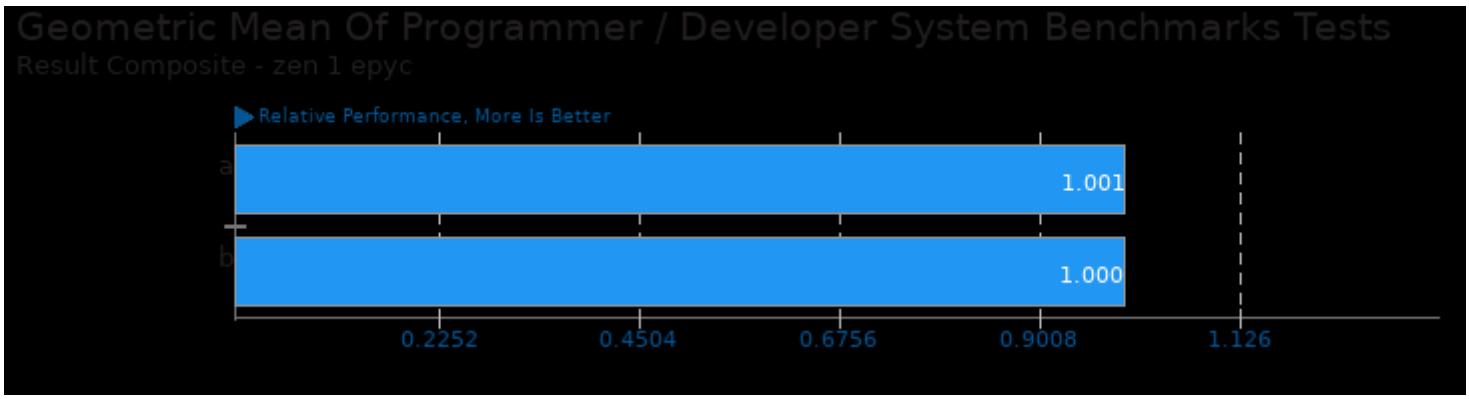
Geometric mean based upon tests: pts/blender and pts/ncnn



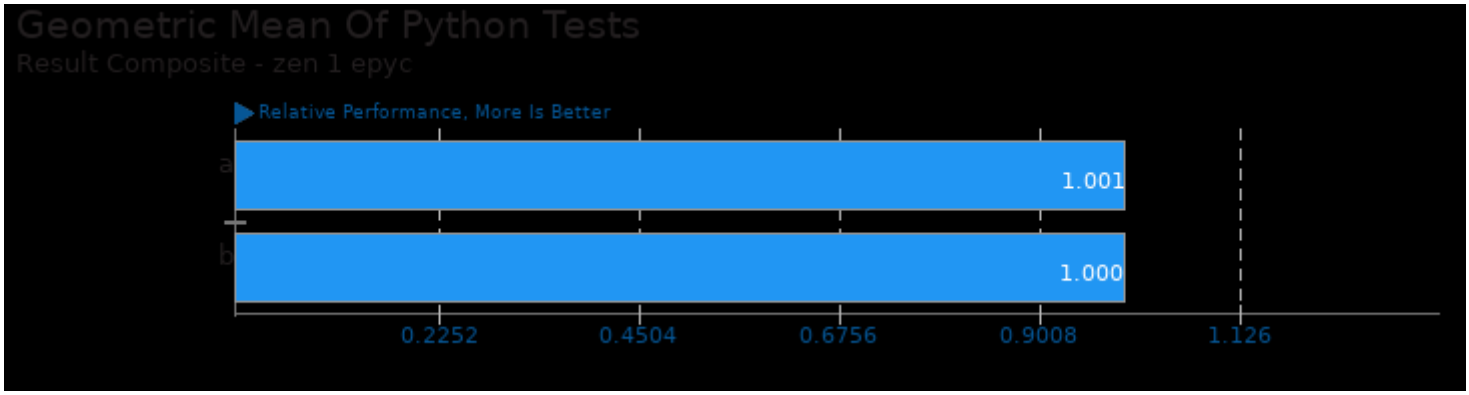
Geometric mean based upon tests: pts/onednn, pts/ospray-studio and pts/openvino



Geometric mean based upon tests: pts/openfoam, pts/lammps, pts/openradioss and pts/nekrs

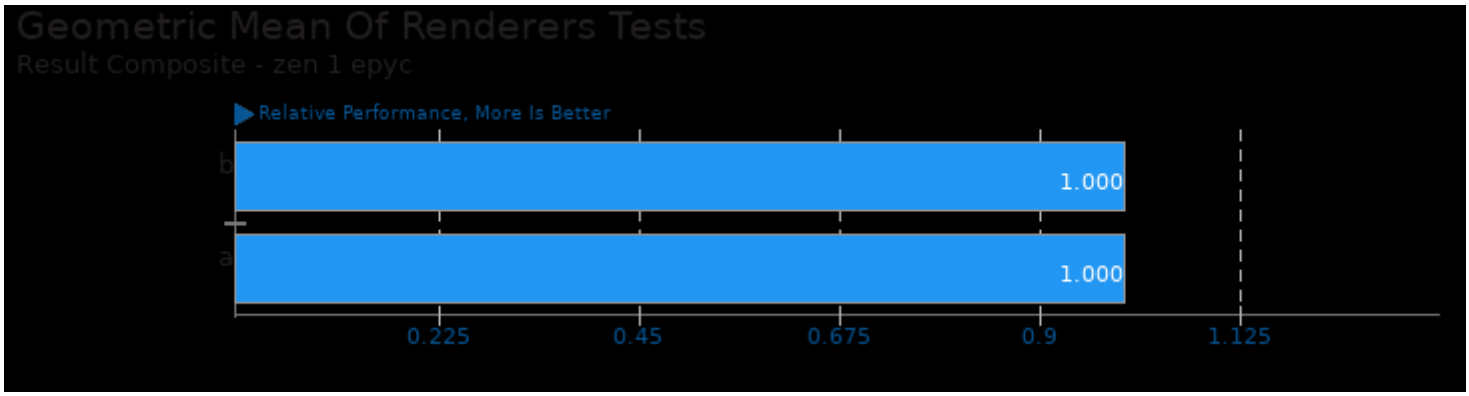


Geometric mean based upon tests: pts/node-web-tooling, pts/blosc, pts/build-php, pts/build-python, pts/build-erlang, pts/build-wasmer and pts/build-nodejs

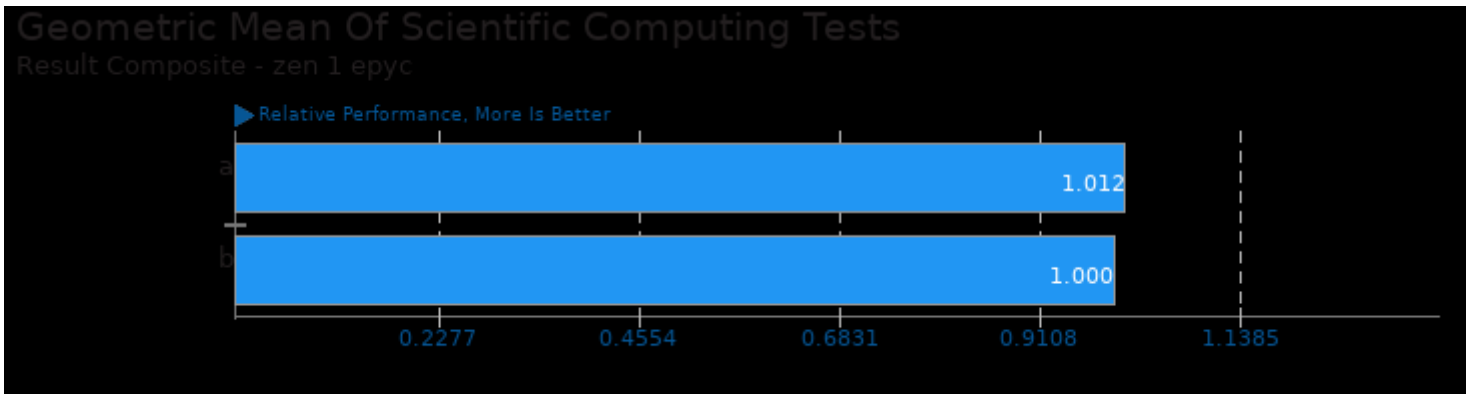


Geometric mean based upon tests: pts/tensorflow, pts/ai-benchmark, pts/ffmpeg, pts/build-nodejs, pts/spacy,

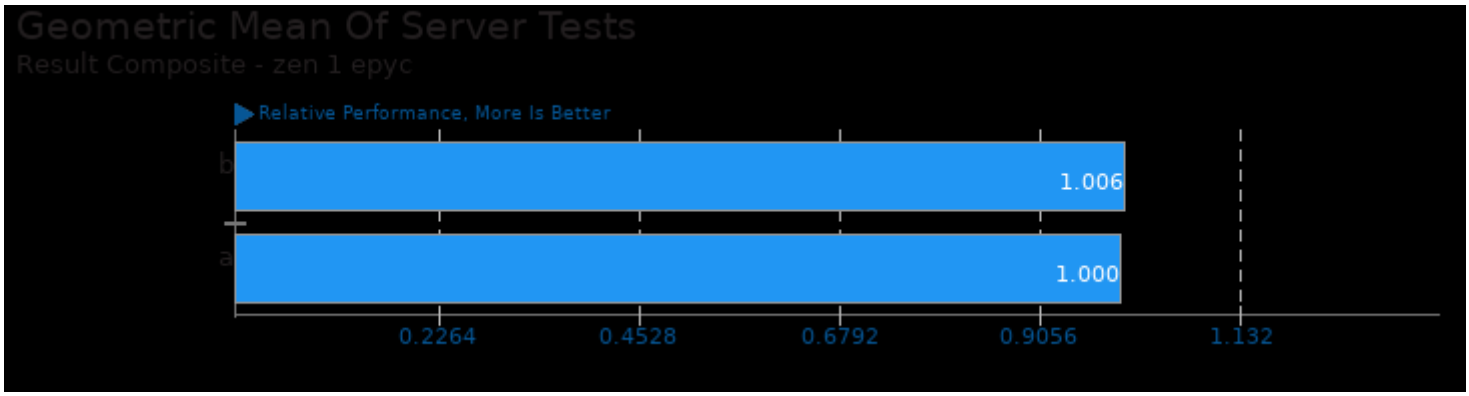
pts/deepsparse, pts/openvino and pts/encodec



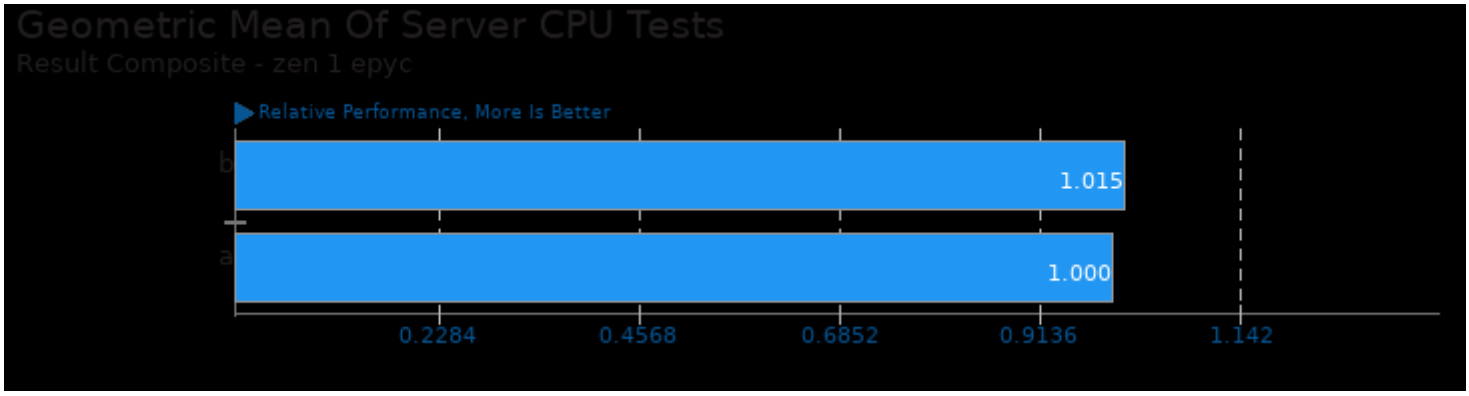
Geometric mean based upon tests: pts/ospray-studio, pts/blender and pts/natron



Geometric mean based upon tests: pts/lammps and pts/openfoam

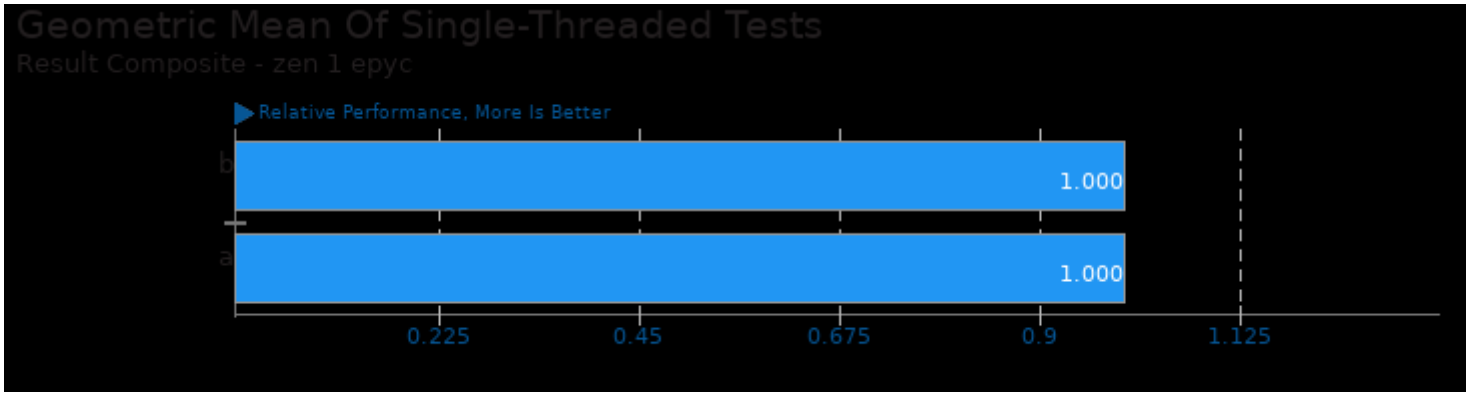


Geometric mean based upon tests: pts/nginx, pts/rocksdb, pts/node-web-tooling and pts/clickhouse

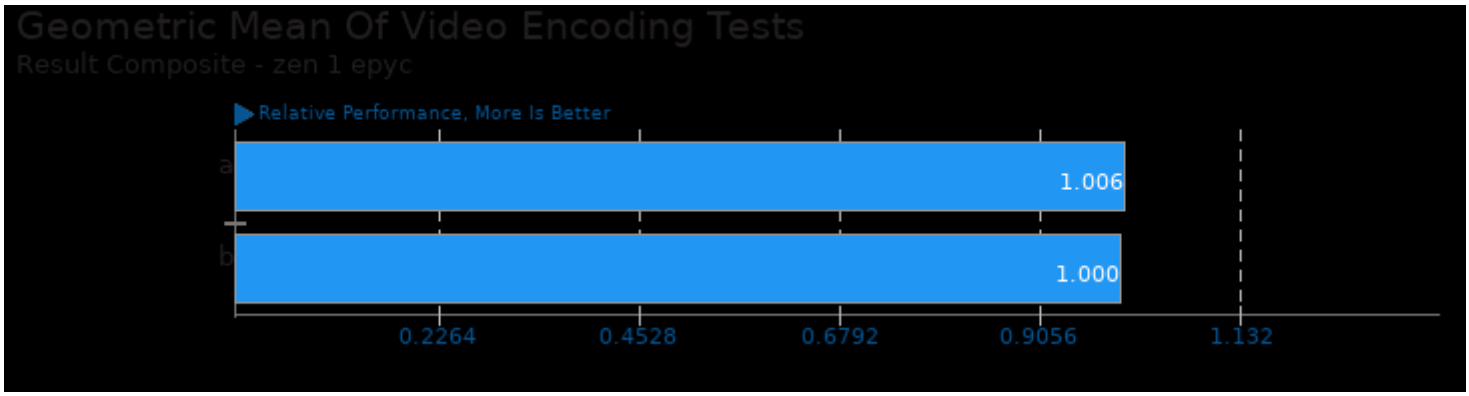


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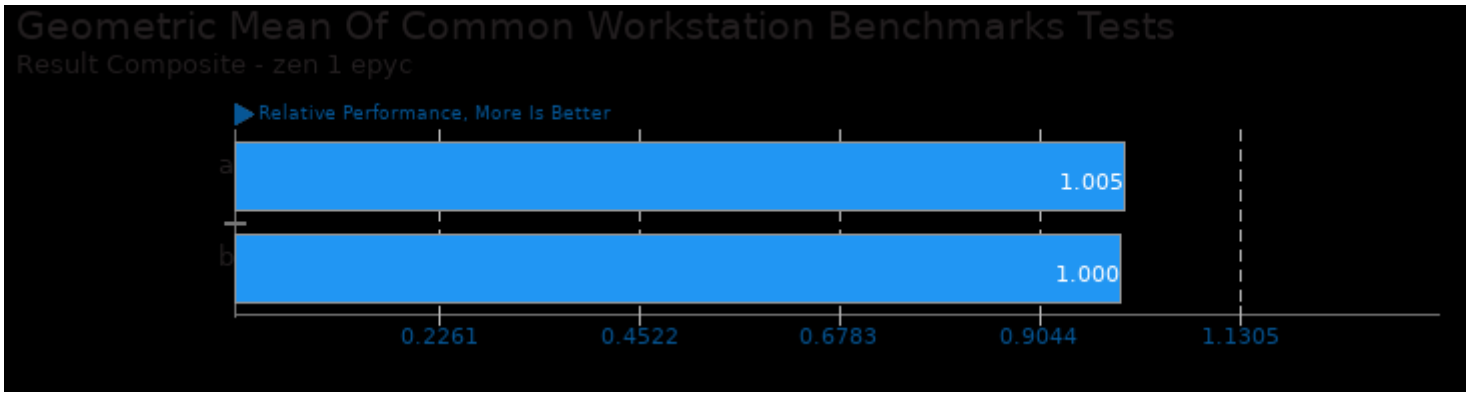
Geometric mean based upon tests: pts/onednn, pts/svt-av1, pts/build-php, pts/stress-ng, pts/blender and pts/cpuminer-opt



Geometric mean based upon tests: pts/encode-flac and pts/nginx



Geometric mean based upon tests: pts/ffmpeg, pts/aom-av1, pts/svt-av1 and pts/avifenc



Geometric mean based upon tests: pts/blender and pts/brl-cad

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 17:09.