

www.phoronix-test-suite.com

cpumem16102021homelab-2

lxc testing on Ubuntu 20.04 via the Phoronix Test Suite.

Test Systems:

officelab-cpumem

Processor: 2 x Intel Xeon E5-2643 v4 @ 3.70GHz (12 Cores / 24 Threads), Motherboard: HP ProLiant ML350 Gen9 (P92 BIOS), Chipset: Intel Xeon E7 v4/Xeon, Memory: 16GB, Disk: 2 x 1024GB Samsung SSD 860 + 2 x 300GB EH0300JDXBA + 600GB EH0600JEDHE, Graphics: Matrox MGA G200EH, Monitor: TFT1980, Network: 4 x Broadcom NetXtreme BCM5719 PCIe

OS: Ubuntu 20.04, Kernel: 5.11.22-5-pve (x86_64), Vulkan: 1.0.2, Compiler: GCC 9.3.0, File-System: zfs, Screen Resolution: 1280x1024, System Layer: lxc

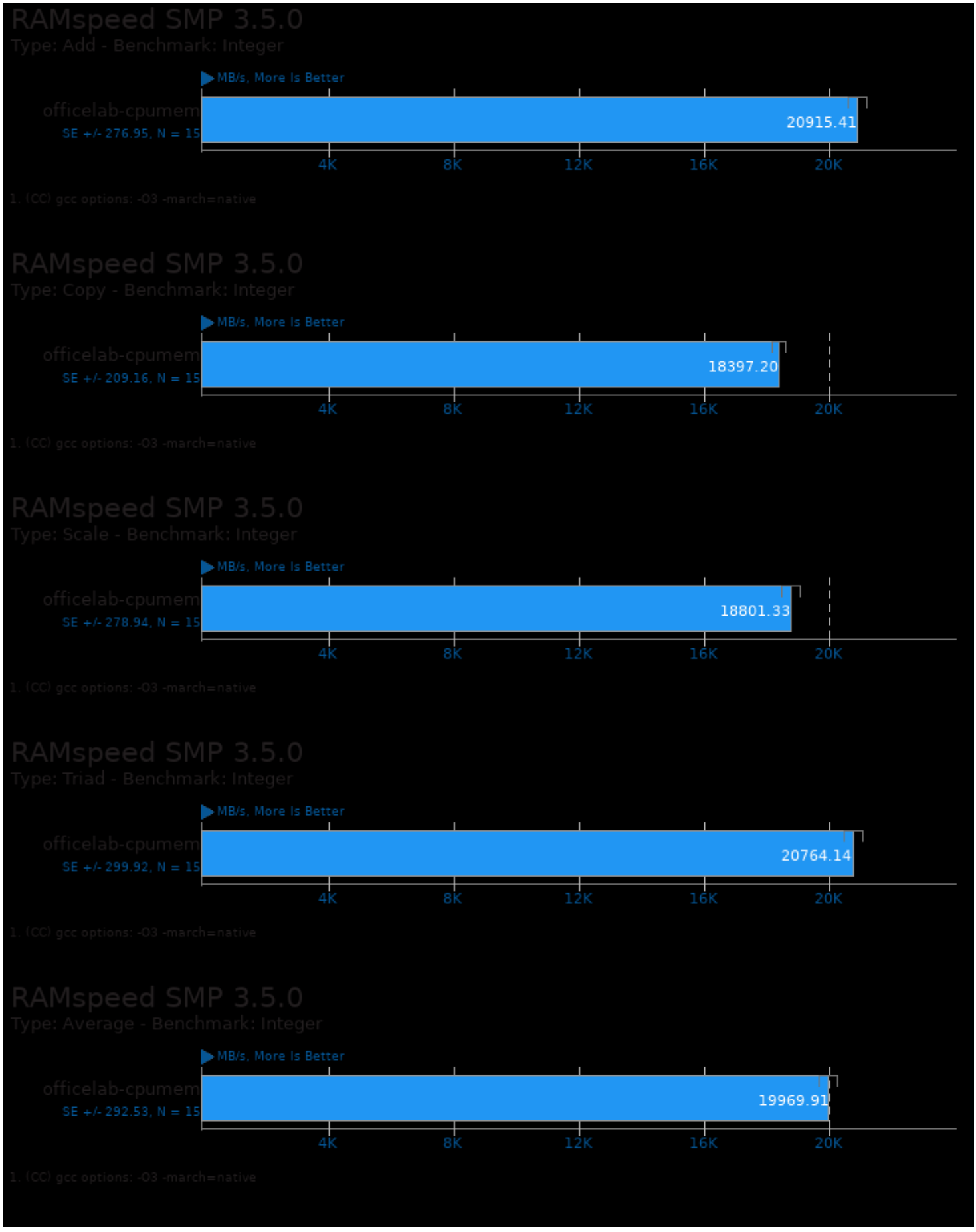
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686

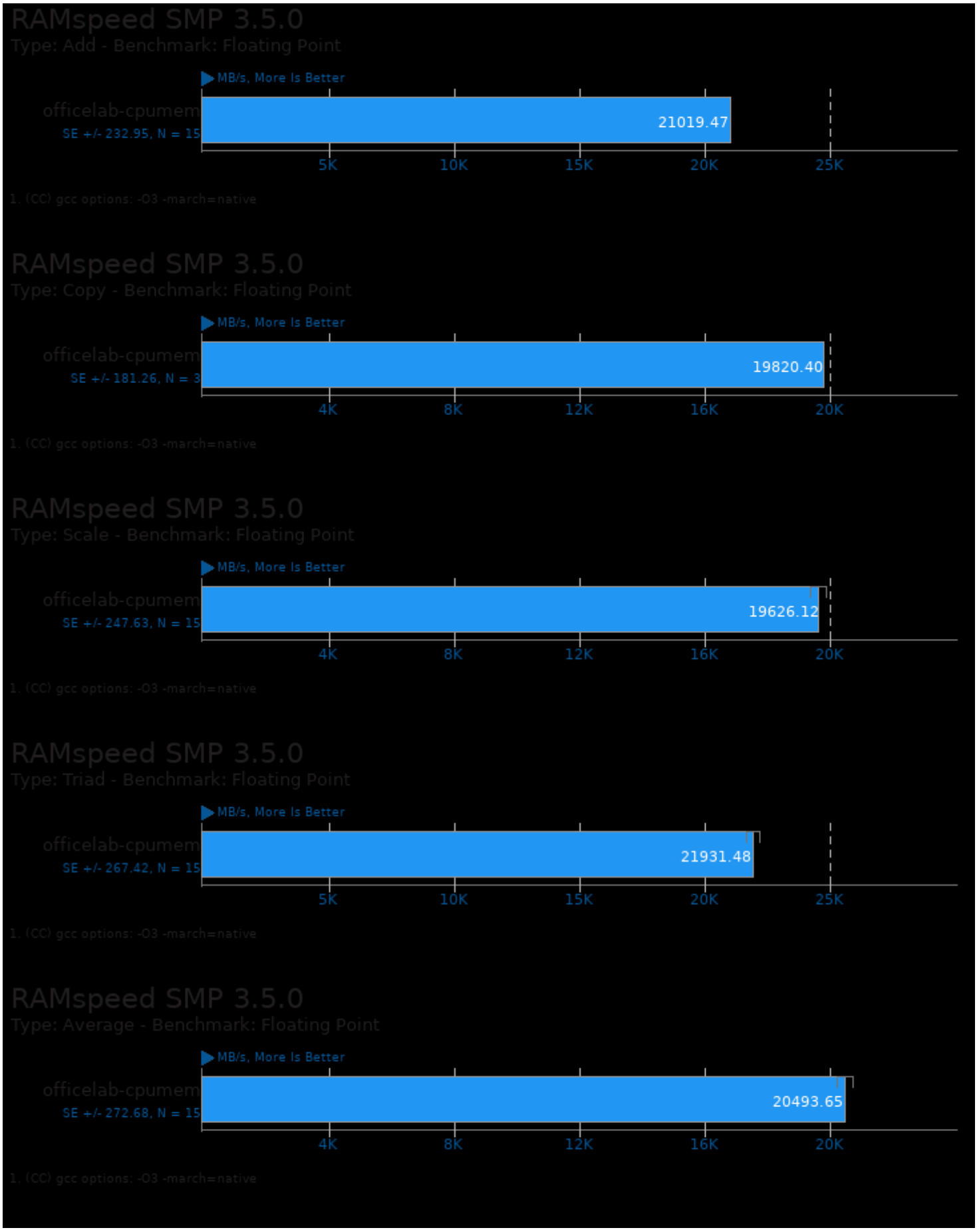
cpumem16102021homelab-2

--with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0xb00003a
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Mitigation of Clear buffers; SMT vulnerable

	officelab-cpumem
RAMspeed SMP - Add - Integer (MB/s)	20915
Standard Deviation	5.1%
RAMspeed SMP - Copy - Integer (MB/s)	18397
Standard Deviation	4.4%
RAMspeed SMP - Scale - Integer (MB/s)	18801
Standard Deviation	5.7%
RAMspeed SMP - Triad - Integer (MB/s)	20764
Standard Deviation	5.6%
RAMspeed SMP - Average - Integer (MB/s)	19970
Standard Deviation	5.7%
RAMspeed SMP - Add - Floating Point (MB/s)	21019
Standard Deviation	4.3%
RAMspeed SMP - Copy - Floating Point (MB/s)	19820
Standard Deviation	1.6%
RAMspeed SMP - Scale - Floating Point (MB/s)	19626
Standard Deviation	4.9%
RAMspeed SMP - Triad - Floating Point (MB/s)	21931
Standard Deviation	4.7%
RAMspeed SMP - Average - Floating Point (MB/s)	20494
Standard Deviation	5.2%
Stream - Copy (MB/s)	69728
Standard Deviation	0.7%
Stream - Scale (MB/s)	54163
Standard Deviation	0.4%
Stream - Triad (MB/s)	62624
Standard Deviation	1.9%
Stream - Add (MB/s)	61401
Standard Deviation	1.7%
Tinymembench - Standard Memcpy (MB/s)	10352
Standard Deviation	2%
Tinymembench - Standard Memset (MB/s)	6504
Standard Deviation	6.8%
MBW - Memory Copy - 1024 MiB (MiB/s)	8901
Standard Deviation	0.1%
MBW - M.C.F.B.S - 1024 MiB (MiB/s)	4546
Standard Deviation	0.3%
t-test1 - 1 (sec)	24.309
Standard Deviation	0.9%
t-test1 - 2 (sec)	8.376
Standard Deviation	0.7%
Rodinia - OpenMP LavaMD (sec)	32.793
Standard Deviation	1.6%
Rodinia - OpenMP CFD Solver (sec)	22.209

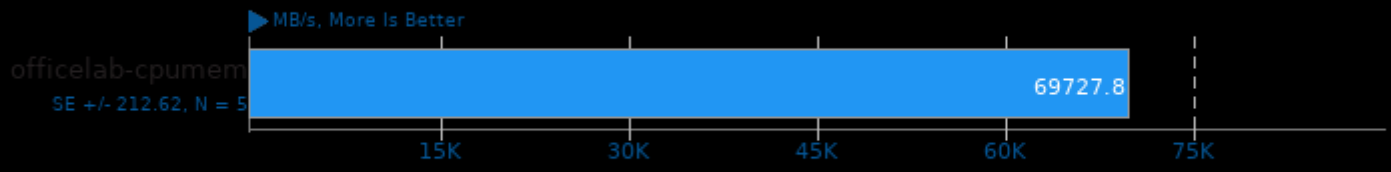
Standard Deviation	1.2%
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	1.44819
Standard Deviation	1.8%
CacheBench - Read Cache (MB/s)	3112
Standard Deviation	0.1%
CacheBench - Write Cache (MB/s)	24007
Standard Deviation	0.8%
Kvazaar - Bosphorus 4K - Slow (FPS)	6.57
Standard Deviation	0.3%
Kvazaar - Bosphorus 4K - Medium (FPS)	6.74
Standard Deviation	0.1%
Kvazaar - Bosphorus 1080p - Slow (FPS)	27.78
Standard Deviation	0.3%
Kvazaar - Bosphorus 1080p - Medium (FPS)	28.76
Standard Deviation	0.2%
Kvazaar - Bosphorus 4K - Very Fast (FPS)	14.83
Standard Deviation	0.2%
Kvazaar - Bosphorus 4K - Ultra Fast (FPS)	25.39
Standard Deviation	0.3%
Kvazaar - Bosphorus 1080p - Very Fast (FPS)	52.85
Standard Deviation	0.1%
Kvazaar - Bosphorus 1080p - Ultra Fast (FPS)	94.89
Standard Deviation	0.6%
x264 - H.2.V.E (FPS)	95.86
Standard Deviation	0.4%
x265 - Bosphorus 4K (FPS)	13.89
Standard Deviation	0.2%
x265 - Bosphorus 1080p (FPS)	45.20
Standard Deviation	0.3%
7-Zip Compression - C.S.T (MIPS)	57803
Standard Deviation	0.9%
Stockfish - Total Time (Nodes/s)	28191911
Standard Deviation	1.6%
asmFish - 1.H.M.2.D (Nodes/s)	32555447
Standard Deviation	1%
Timed Linux Kernel Compilation - Time To Compile (sec)	82.141
Standard Deviation	1.8%
POV-Ray - Trace Time (sec)	50.654
Standard Deviation	0.2%
Radiance Benchmark - Serial (sec)	861.297
Radiance Benchmark - SMP Parallel (sec)	263.603
OpenSSL - R.4.b.P (Signs/sec)	3113
Standard Deviation	0%
ctx_clock - C.S.T (Clocks)	1313
Standard Deviation	0.3%
Sysbench - CPU (Events/sec)	22415
Standard Deviation	0.2%
Blender - Barbershop - CPU-Only (sec)	976.01


RAMspeed SMP 3.5.0
Type: Add - Benchmark: Integer
MB/s, More Is Better
officelab-cpumem
SE +/- 276.95, N = 15
20915.41
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Integer
MB/s, More Is Better
officelab-cpumem
SE +/- 209.16, N = 15
18397.20
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Scale - Benchmark: Integer
MB/s, More Is Better
officelab-cpumem
SE +/- 278.94, N = 15
18801.33
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Triad - Benchmark: Integer
MB/s, More Is Better
officelab-cpumem
SE +/- 299.92, N = 15
20764.14
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Average - Benchmark: Integer
MB/s, More Is Better
officelab-cpumem
SE +/- 292.53, N = 15
19969.91
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native


RAMspeed SMP 3.5.0
Type: Add - Benchmark: Floating Point
MB/s, More Is Better
officelab-cpumem
SE +/- 232.95, N = 15
21019.47
5K
10K
15K
20K
25K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Floating Point
MB/s, More Is Better
officelab-cpumem
SE +/- 181.26, N = 3
19820.40
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Scale - Benchmark: Floating Point
MB/s, More Is Better
officelab-cpumem
SE +/- 247.63, N = 15
19626.12
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Triad - Benchmark: Floating Point
MB/s, More Is Better
officelab-cpumem
SE +/- 267.42, N = 15
21931.48
5K
10K
15K
20K
25K
1. (CC) gcc options: -O3 -march=native
RAMspeed SMP 3.5.0
Type: Average - Benchmark: Floating Point
MB/s, More Is Better
officelab-cpumem
SE +/- 272.68, N = 15
20493.65
4K
8K
12K
16K
20K
1. (CC) gcc options: -O3 -march=native

Stream 2013-01-17

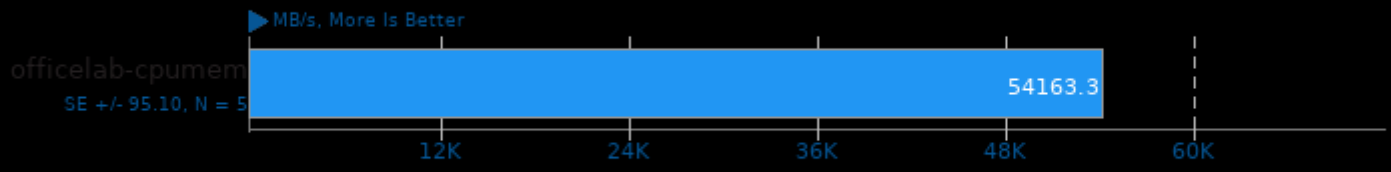
Type: Copy



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

Stream 2013-01-17

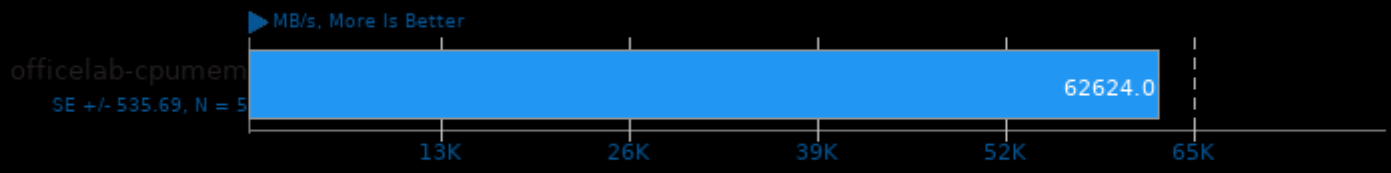
Type: Scale



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

Stream 2013-01-17

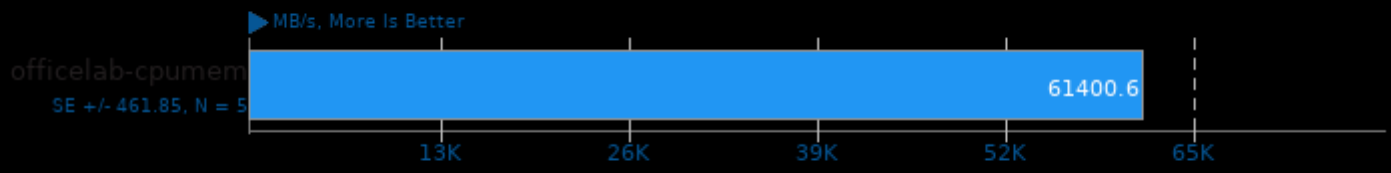
Type: Triad



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

Stream 2013-01-17

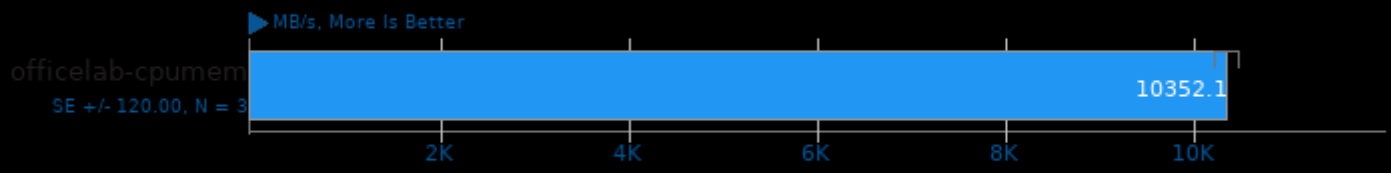
Type: Add



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

Tinymembench 2018-05-28

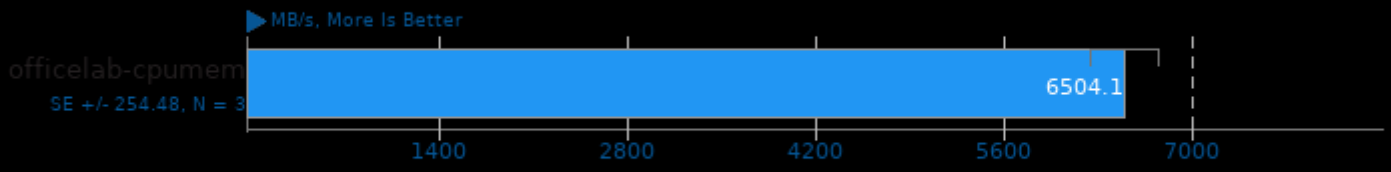
Standard Memcpy



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

Tinymembench 2018-05-28

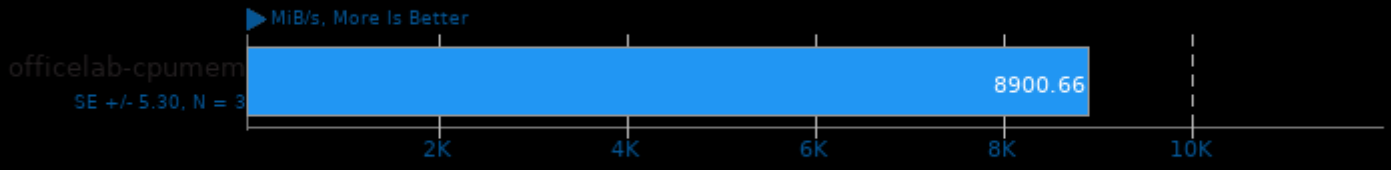
Standard Memset



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

MBW 2018-09-08

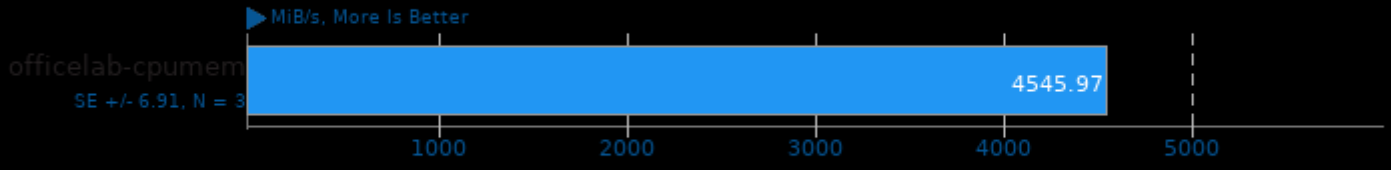
Test: Memory Copy - Array Size: 1024 MiB



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

MBW 2018-09-08

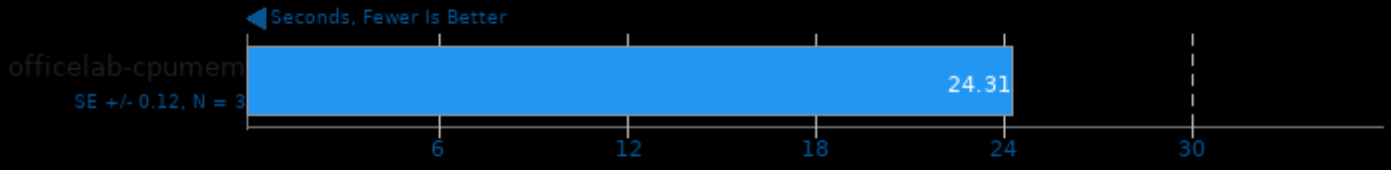
Test: Memory Copy, Fixed Block Size - Array Size: 1024 MiB



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

t-test1 2017-01-13

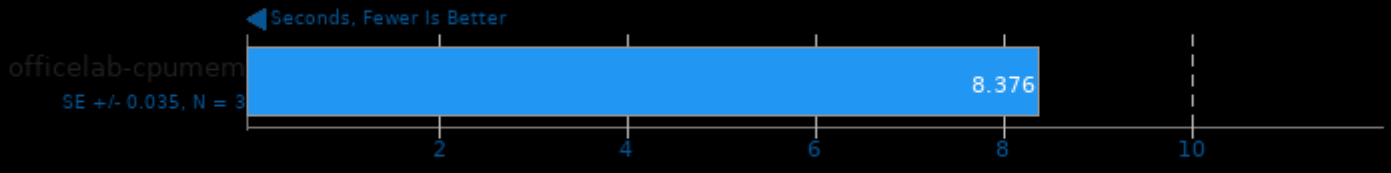
Threads: 1



1. (CC) gcc options: -pthread

t-test1 2017-01-13

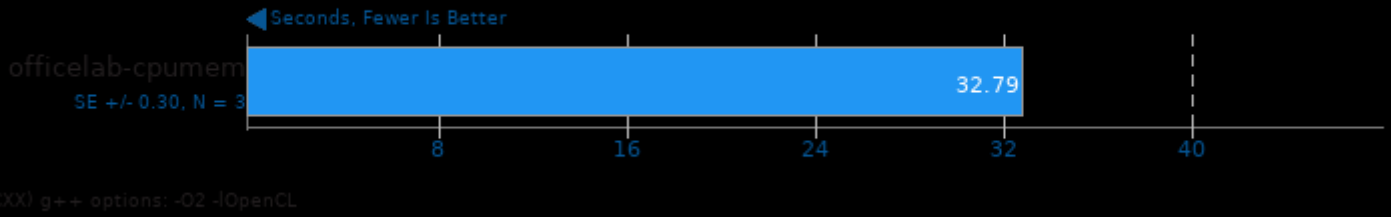
Threads: 2



1. (CC) gcc options: -pthread

Rodinia 2.4

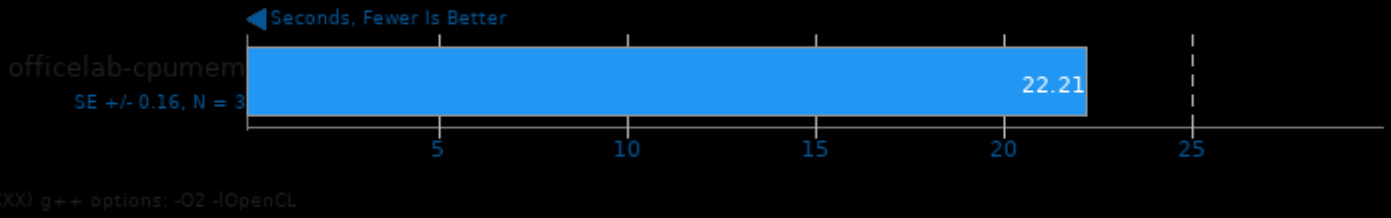
Test: OpenMP LavaMD



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

Rodinia 2.4

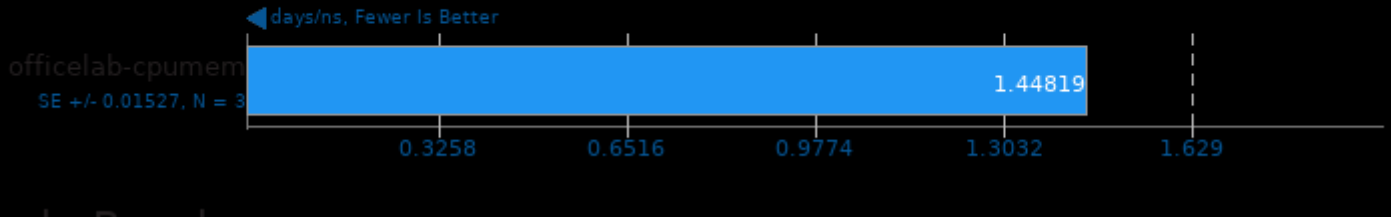
Test: OpenMP CFD Solver



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

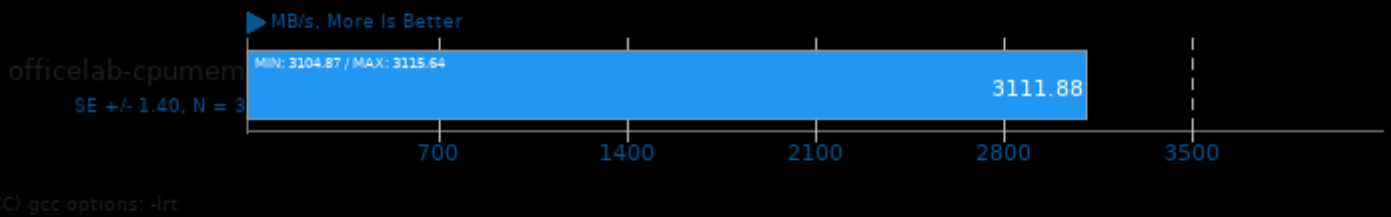
NAMD 2.13b1

ATPase Simulation - 327,506 Atoms



CacheBench

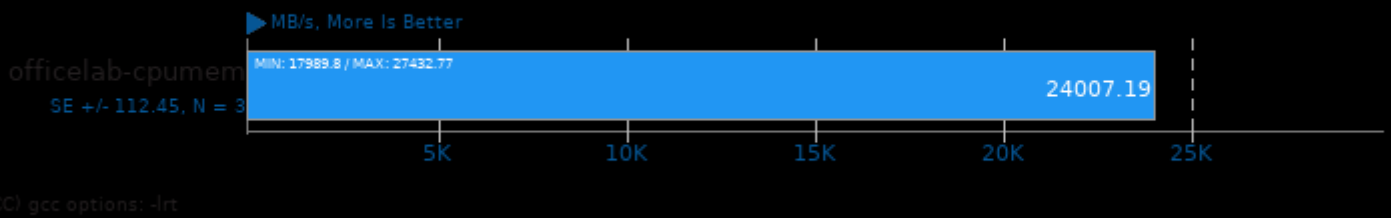
Read Cache



1. (CC) gcc options: -lrt

CacheBench

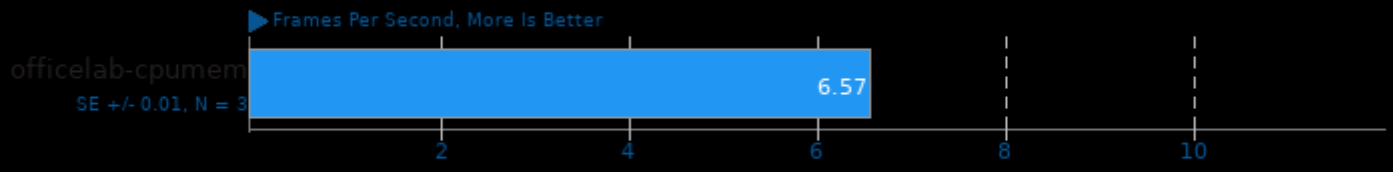
Write Cache



1. (CC) gcc options: -lrt

Kvazaar 2.1

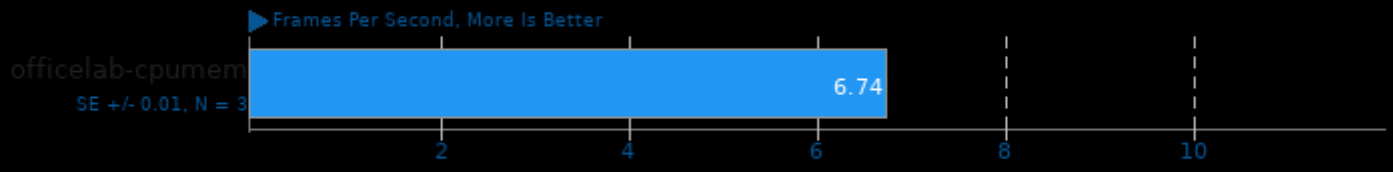
Video Input: Bosphorus 4K - Video Preset: Slow



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

Kvazaar 2.1

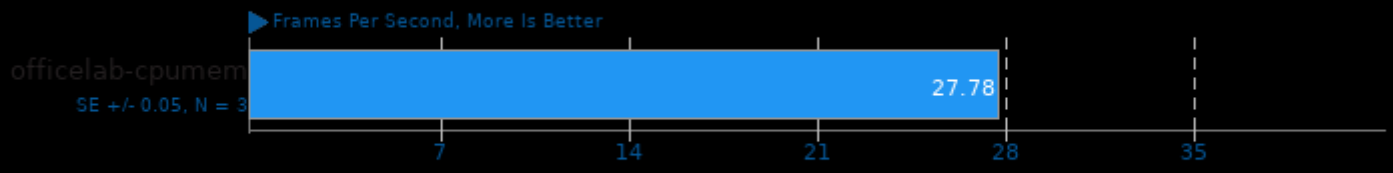
Video Input: Bosphorus 4K - Video Preset: Medium



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

Kvazaar 2.1

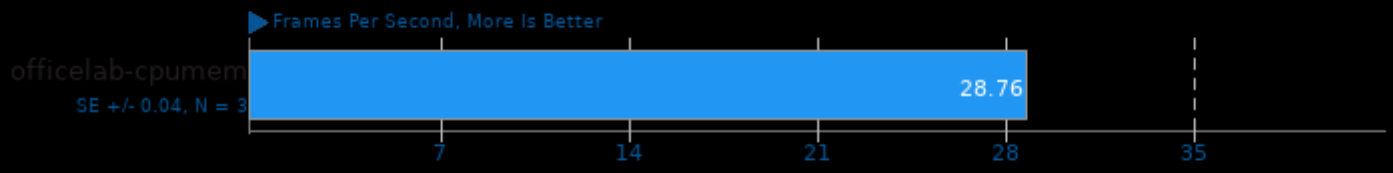
Video Input: Bosphorus 1080p - Video Preset: Slow



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

Kvazaar 2.1

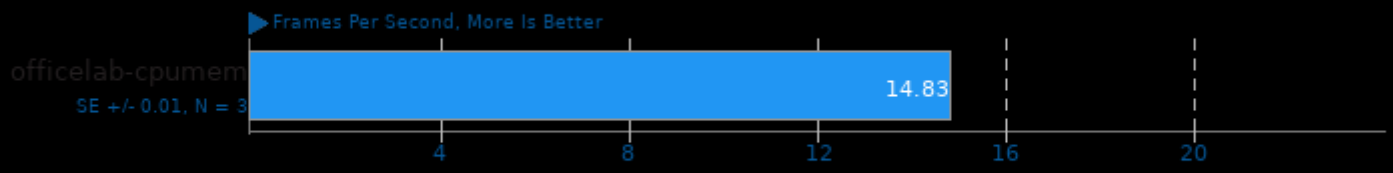
Video Input: Bosphorus 1080p - Video Preset: Medium



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

Kvazaar 2.1

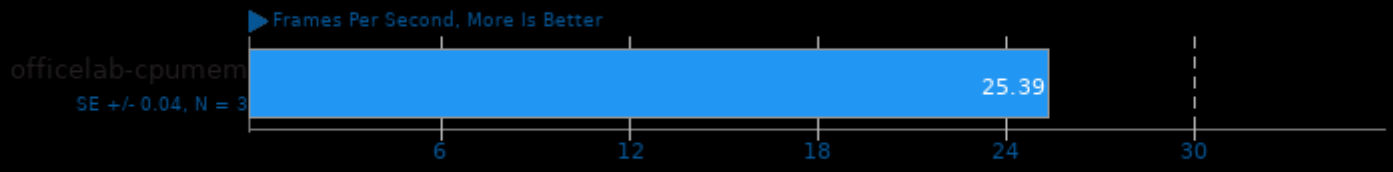
Video Input: Bosphorus 4K - Video Preset: Very Fast



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

Kvazaar 2.1

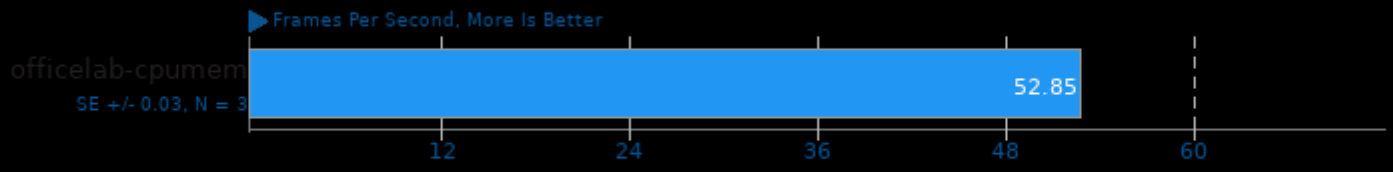
Video Input: Bosphorus 4K - Video Preset: Ultra Fast



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

Kvazaar 2.1

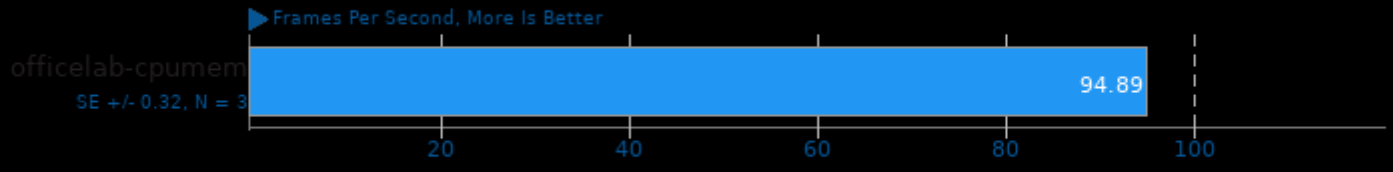
Video Input: Bosphorus 1080p - Video Preset: Very Fast



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

Kvazaar 2.1

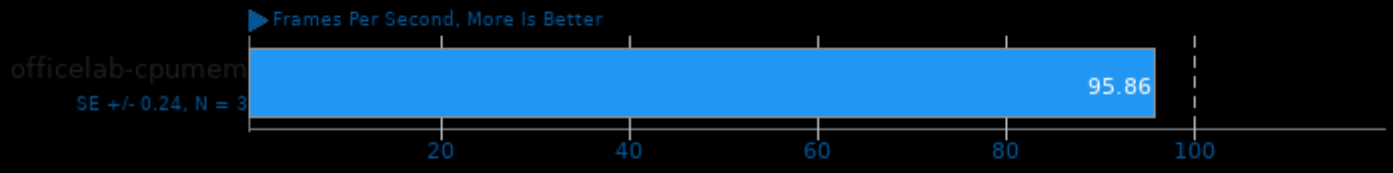
Video Input: Bosphorus 1080p - Video Preset: Ultra Fast



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

x264 2018-09-25

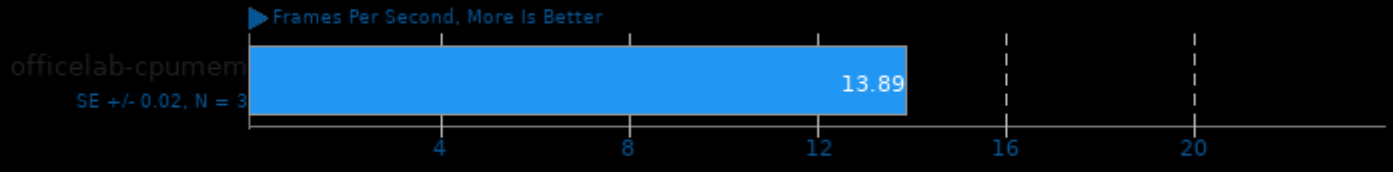
H.264 Video Encoding



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

x265 3.4

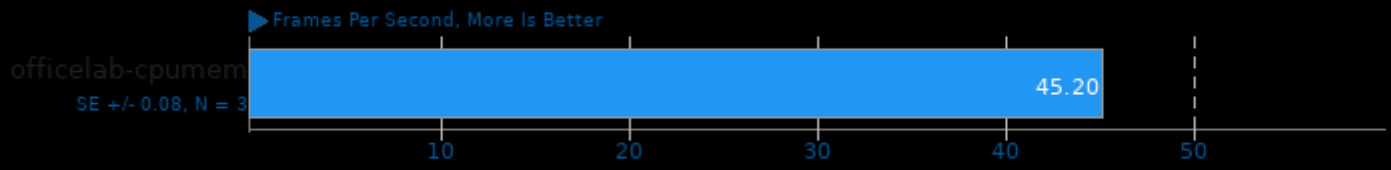
Video Input: Bosphorus 4K



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

x265 3.4

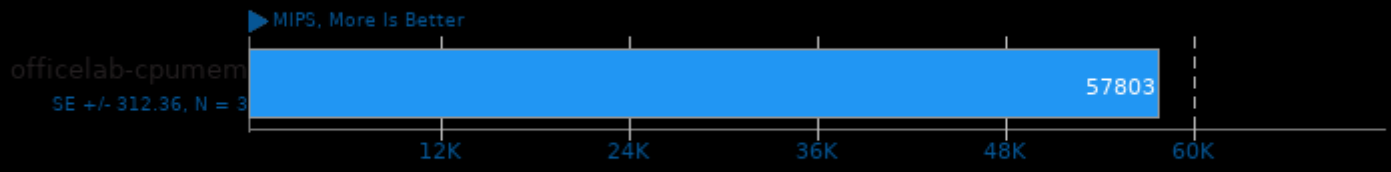
Video Input: Bosphorus 1080p



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

7-Zip Compression 16.02

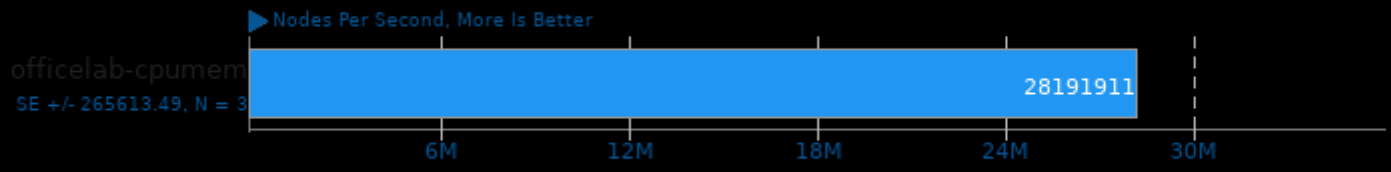
Compress Speed Test



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

Stockfish 9

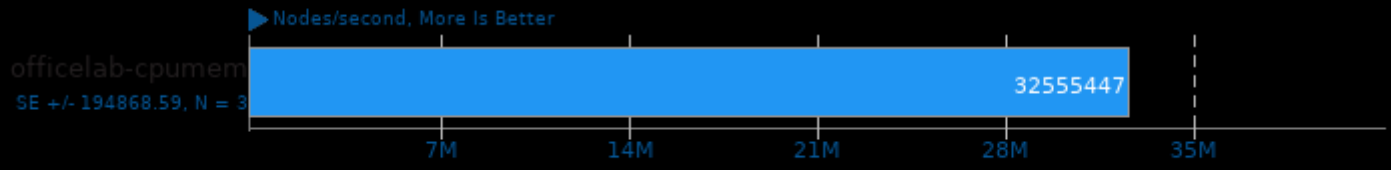
Total Time



1. (CXX) g++ options: -m64 -lpthread -fno-exceptions -std=c++11 -pedantic -O3 -msse -msse3 -mpopcnt -flto

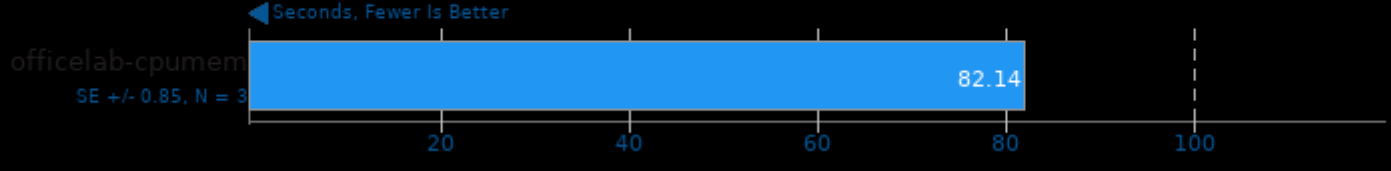
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



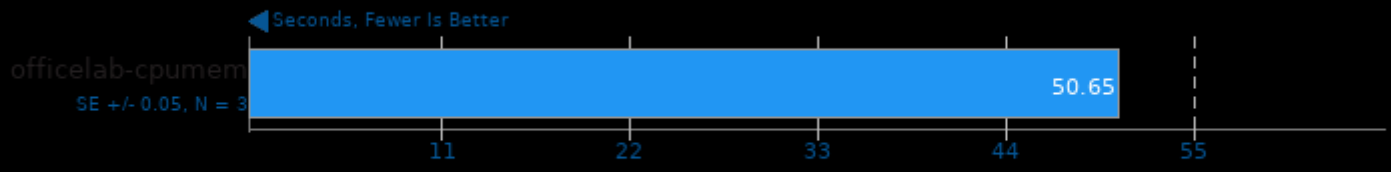
Timed Linux Kernel Compilation 4.18

Time To Compile



POV-Ray 3.7.0.7

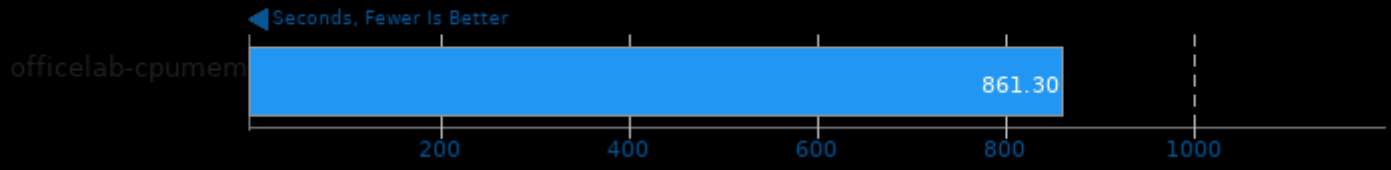
Trace Time



1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -pthread -lXpm -lSM -lICE -lX11 -ltiff -ljpeg -lpng -lz -lrt -lm -lboost_thread -lboost_system

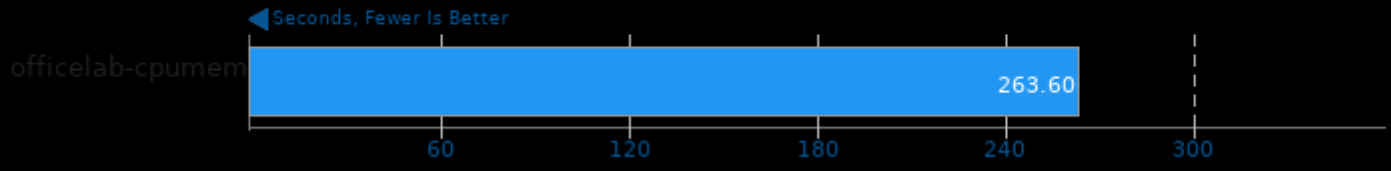
Radiance Benchmark 5.0

Test: Serial



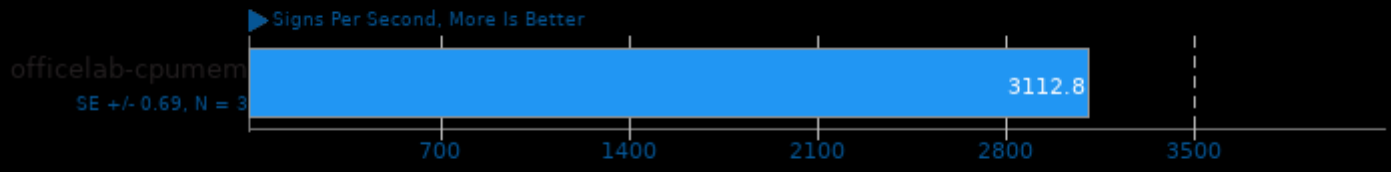
Radiance Benchmark 5.0

Test: SMP Parallel



OpenSSL 1.1.1

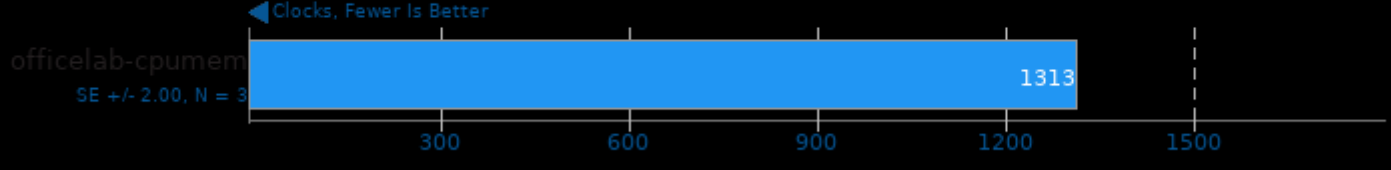
RSA 4096-bit Performance



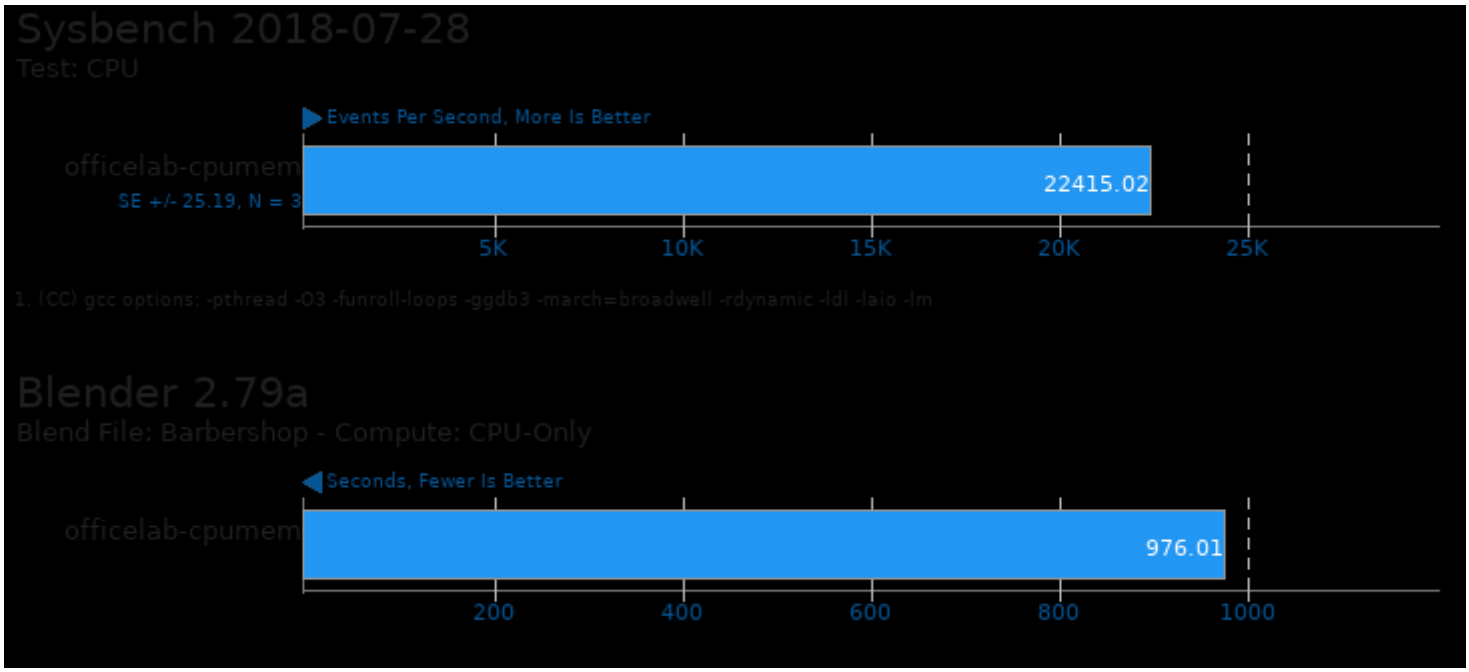
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

ctx_clock

Context Switch Time



cpumem16102021homelab-2



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 06:40.