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2024-07-25-1926

2 x AMD EPYC 73F3 16-Core testing with a Supermicro H12DST-B (2.4a BIOS) and ASPEED on AlmaLinux 9.4 via the Phoronix Test Suite.

Test Systems:

SAMSUNG MZ7LH960 - 16 x 64 GB DDR4-3200MT

Processor: 2 x AMD EPYC 73F3 16-Core @ 3.50GHz (32 Cores / 64 Threads), Motherboard: Supermicro H12DST-B (2.4a BIOS), Chipset: AMD Starship/Matisse, Memory: 16 x 64 GB DDR4-3200MT/s 36ASF8G72PZ-3G2E1, Disk: 960GB SAMSUNG MZ7LH960, Graphics: ASPEED, Network: 2 x Intel XXV710 for 25GbE SFP28

OS: AlmaLinux 9.4, Kernel: 5.14.0-427.26.1.el9_4.x86_64 (x86_64), Display Server: X Server, Compiler: GCC 11.4.1 20231218, File-System: xfs, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-host-bind-now --enable-host-pie --enable-initfini-array --enable-languages=c,c++,fortran,lto --enable-link-serialization=1 --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=x86-64 --with-arch_64=x86-64-v2 --with-build-config=bootstrap-lto --with-gcc-major-version-only --with-linker-hash-style=gnu --with-tune=generic

--without-cuda-driver --without-isl
Disk Notes: MQ-DEADLINE / attr2,inode64,logbsize=32k,logbufs=8,noquota,relatime,rw,seclabel / Block Size: 4096
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0xa0011d3
Java Notes: OpenJDK Runtime Environment (Red_Hat-11.0.24.0.8-2) (build 11.0.24+8-LTS)
Python Notes: Python 3.12.1
Security Notes: SELinux + gather_data_sampling: Not affected + itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + retbleed: Not affected + spec_rstack_overflow: Mitigation of Safe RET + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: always-on RSB filling PBRSB-eIBRS: Not affected + srbds: Not affected + tsx_async_abort: Not affected

	SAMSUNG MZ7LH960 - 16 x 64 GB DDR4-3200MT
LevelDB - Hot Read (us/Op)	84.468
LevelDB - Fill Sync (MB/s)	10.8
LevelDB - Fill Sync (us/Op)	649.574
LevelDB - Overwrite (MB/s)	17.5
LevelDB - Overwrite (us/Op)	403.268
LevelDB - Rand Fill (MB/s)	18.5
LevelDB - Rand Fill (us/Op)	382.224
LevelDB - Rand Read (us/Op)	85.08
LevelDB - Seek Rand (us/Op)	159.307
LevelDB - Rand Delete (us/Op)	395.139
LevelDB - Seq Fill (MB/s)	17.5
LevelDB - Seq Fill (us/Op)	403.131
SQLite - 1 (sec)	3.896
SQLite - 2 (sec)	4.821
SQLite - 4 (sec)	6.702
SQLite - 8 (sec)	12.05
SQLite - 16 (sec)	19.773
SQLite - 32 (sec)	33.841
SQLite - 64 (sec)	64.05
FS-Mark - 1.F.1.S (Files/s)	321.4
FS-Mark - 5.F.1.S.4.T (Files/s)	424.8
FS-Mark - 4.F.3.S.D.1.S (Files/s)	319.8
FS-Mark - 1.F.1.S.N.S.F (Files/s)	2097
BlogBench - Read (Final Score)	1292270
BlogBench - Write (Final Score)	12623
Dbench - 1 (MB/s)	626.209
Dbench - 6 (MB/s)	2294
Dbench - 12 (MB/s)	3109
Dbench - 48 (MB/s)	5377
Dbench - 128 (MB/s)	5656
Dbench - 256 (MB/s)	5726
IOR - 2MB - / (MB/s)	236.05
IOR - 4MB - / (MB/s)	224.07
IOR - 8MB - / (MB/s)	225.92
IOR - 16MB - / (MB/s)	223.43
IOR - 32MB - / (MB/s)	214.33

IOR - 64MB - / (MB/s)	213.64
IOR - 256MB - / (MB/s)	214.4
IOR - 512MB - / (MB/s)	216.48
IOR - 1024MB - / (MB/s)	216.74
IOR - 2MB - /home (MB/s)	243.83
IOR - 4MB - /home (MB/s)	229.37
IOR - 8MB - /home (MB/s)	225.66
IOR - 16MB - /home (MB/s)	224.42
IOR - 32MB - /home (MB/s)	216.67
IOR - 64MB - /home (MB/s)	214.69
IOR - 256MB - /home (MB/s)	215.59
IOR - 512MB - /home (MB/s)	217.2
IOR - 1024MB - /home (MB/s)	216.83
IOR - 2MB (MB/s)	247.5
IOR - 4MB (MB/s)	230.24
IOR - 8MB (MB/s)	228.63
IOR - 16MB (MB/s)	230.13
IOR - 32MB (MB/s)	221.89
IOR - 64MB (MB/s)	221.08
IOR - 256MB (MB/s)	223.34
IOR - 512MB (MB/s)	218.53
IOR - 1024MB (MB/s)	214.85
RAMspeed SMP - Add - Integer (MB/s)	80876
RAMspeed SMP - Copy - Integer (MB/s)	81718
RAMspeed SMP - Scale - Integer (MB/s)	70831
RAMspeed SMP - Triad - Integer (MB/s)	79461
RAMspeed SMP - Average - Integer (MB/s)	79210
RAMspeed SMP - Add - Floating Point (MB/s)	81018
RAMspeed SMP - Copy - Floating Point (MB/s)	83394
RAMspeed SMP - Scale - Floating Point (MB/s)	80849
RAMspeed SMP - Triad - Floating Point (MB/s)	81496
RAMspeed SMP - Average - Floating Point (MB/s)	81068
Stream - Copy (MB/s)	242377
Stream - Scale (MB/s)	202883
Stream - Triad (MB/s)	228779
Stream - Add (MB/s)	218286
Tinymembench - Standard Memcpy (MB/s)	25320
Tinymembench - Standard Memset (MB/s)	83183
MBW - Memory Copy - 128 MiB (MiB/s)	23221
MBW - Memory Copy - 512 MiB (MiB/s)	22052
MBW - Memory Copy - 1024 MiB (MiB/s)	21774
MBW - Memory Copy - 4096 MiB (MiB/s)	21844
MBW - Memory Copy - 8192 MiB (MiB/s)	20116
MBW - M.C.F.B.S - 128 MiB (MiB/s)	15457
MBW - M.C.F.B.S - 512 MiB (MiB/s)	16531
MBW - M.C.F.B.S - 1024 MiB (MiB/s)	16588
MBW - M.C.F.B.S - 4096 MiB (MiB/s)	16646
MBW - M.C.F.B.S - 8192 MiB (MiB/s)	16606

t-test1 - 1 (sec)	22.626
t-test1 - 2 (sec)	7.339
pmbench - 1 - 50% (us - Page Latency)	0.086
pmbench - 2 - 50% (us - Page Latency)	0.097
pmbench - 4 - 50% (us - Page Latency)	0.1539
pmbench - 8 - 50% (us - Page Latency)	0.1226
pmbench - 16 - 50% (us - Page Latency)	0.1333
pmbench - 32 - 50% (us - Page Latency)	0.1326
pmbench - 64 - 50% (us - Page Latency)	0.1606
pmbench - 1 - 100% Reads (us - Page Latency)	0.0433
pmbench - 2 - 100% Reads (us - Page Latency)	0.0437
pmbench - 4 - 100% Reads (us - Page Latency)	0.0442
pmbench - 8 - 100% Reads (us - Page Latency)	0.0443
pmbench - 1 - 100% Writes (us - Page Latency)	0.0451
pmbench - 16 - 100% Reads (us - Page Latency)	0.0454
pmbench - 2 - 100% Writes (us - Page Latency)	0.0558
pmbench - 32 - 100% Reads (us - Page Latency)	0.0466
pmbench - 4 - 100% Writes (us - Page Latency)	0.0912
pmbench - 64 - 100% Reads (us - Page Latency)	0.0531
pmbench - 8 - 100% Writes (us - Page Latency)	0.0705
pmbench - 16 - 100% Writes (us - Page Latency)	0.0671
pmbench - 32 - 100% Writes (us - Page Latency)	0.0693
pmbench - 64 - 100% Writes (us - Page Latency)	0.1104
pmbench - 1 - 8.R.2.W (us - Page Latency)	0.1136
pmbench - 2 - 8.R.2.W (us - Page Latency)	0.141
pmbench - 4 - 8.R.2.W (us - Page Latency)	0.2084
pmbench - 8 - 8.R.2.W (us - Page Latency)	0.2021
pmbench - 16 - 8.R.2.W (us - Page Latency)	0.1642
pmbench - 32 - 8.R.2.W (us - Page Latency)	0.1657
pmbench - 64 - 8.R.2.W (us - Page Latency)	0.1792
WireGuard + Linux Networking Stack Stress Test (sec)	510.437
perf-bench - Epoll Wait (ops/sec)	4391
perf-bench - Futex Hash (ops/sec)	1945033
perf-bench - Memcpy 1MB (GB/sec)	41.145048
perf-bench - Memset 1MB (GB/sec)	76.791289
perf-bench - Sched Pipe (ops/sec)	208642
perf-bench - Futex Lock-Pi (ops/sec)	247
perf-bench - Syscall Basic (ops/sec)	5893858
OSBench - Create Files (us/Event)	50.466534
OSBench - Create Threads (us/Event)	28.92971
OSBench - Launch Programs (us/Event)	120.129585
OSBench - Create Processes (us/Event)	88.741779
OSBench - Memory Allocations (Ns/Event)	79.782963
C-Blosc - blosclz shuffle - 8MB (MB/s)	20716
C-Blosc - blosclz shuffle - 16MB (MB/s)	24507
C-Blosc - blosclz shuffle - 32MB (MB/s)	25555
C-Blosc - blosclz shuffle - 64MB (MB/s)	21828
C-Blosc - blosclz noshuffle - 8MB (MB/s)	15201

C-Blosc - blosclz shuffle - 128MB (MB/s)	16086
C-Blosc - blosclz shuffle - 256MB (MB/s)	11498
C-Blosc - blosclz bitshuffle - 8MB (MB/s)	18574
C-Blosc - blosclz noshuffle - 16MB (MB/s)	17758
C-Blosc - blosclz noshuffle - 32MB (MB/s)	16976
C-Blosc - blosclz noshuffle - 64MB (MB/s)	13638
C-Blosc - blosclz bitshuffle - 16MB (MB/s)	20374
C-Blosc - blosclz bitshuffle - 32MB (MB/s)	22141
C-Blosc - blosclz bitshuffle - 64MB (MB/s)	19722
C-Blosc - blosclz noshuffle - 128MB (MB/s)	10364
C-Blosc - blosclz noshuffle - 256MB (MB/s)	8012
C-Blosc - blosclz bitshuffle - 128MB (MB/s)	14808
C-Blosc - blosclz bitshuffle - 256MB (MB/s)	10443
IPC_benchmark - TCP Socket - 128 (Messages/sec)	1263718
IPC_benchmark - TCP Socket - 256 (Messages/sec)	1238987
IPC_benchmark - TCP Socket - 512 (Messages/sec)	1196204
IPC_benchmark - TCP Socket - 1024 (Messages/sec)	1084472
IPC_benchmark - TCP Socket - 2048 (Messages/sec)	899853
IPC_benchmark - TCP Socket - 4096 (Messages/sec)	643579
IPC_benchmark - Unnamed Pipe - 128 (Messages/sec)	2162330
IPC_benchmark - Unnamed Pipe - 256 (Messages/sec)	2103478
IPC_benchmark - Unnamed Pipe - 512 (Messages/sec)	2213275
IPC_benchmark - Unnamed Pipe - 1024 (Messages/sec)	2085283
IPC_benchmark - Unnamed Pipe - 2048 (Messages/sec)	1953373
IPC_benchmark - Unnamed Pipe - 4096 (Messages/sec)	1414248
IPC_benchmark - FIFO Named Pipe - 128 (Messages/sec)	2308548
IPC_benchmark - FIFO Named Pipe - 256 (Messages/sec)	2312978
IPC_benchmark - FIFO Named Pipe - 512 (Messages/sec)	2401722
IPC_benchmark - FIFO Named Pipe - 1024 (Messages/sec)	2214247
IPC_benchmark - FIFO Named Pipe - 2048 (Messages/sec)	2076429
IPC_benchmark - FIFO Named Pipe - 4096 (Messages/sec)	1745710
IPC_benchmark - U.U.D.S - 128 (Messages/sec)	757692
IPC_benchmark - U.U.D.S - 256 (Messages/sec)	750110
IPC_benchmark - U.U.D.S - 512 (Messages/sec)	744159
IPC_benchmark - U.U.D.S - 1024 (Messages/sec)	706851
IPC_benchmark - U.U.D.S - 2048 (Messages/sec)	689425
IPC_benchmark - U.U.D.S - 4096 (Messages/sec)	485424
Crypto++ - All Algorithms (MiB/s)	1751
Crypto++ - Keyed Algorithms (MiB/s)	643.881111
Crypto++ - Unkeyed Algorithms (MiB/s)	457.524981
Etcpak - Multi-Threaded - DXT1 (Mpx/s)	7902
Etcpak - Multi-Threaded - ETC2 (Mpx/s)	7924
Etcpak - Single-Threaded - DXT1 (Mpx/s)	267.12
Etcpak - Single-Threaded - ETC2 (Mpx/s)	264.622
High Performance Conjugate Gradient - 104 104 104 - 60 (GFLOP/s)	38.1399
High Performance Conjugate Gradient - 144 144 144 - 60 (GFLOP/s)	37.1471
High Performance Conjugate Gradient - 160 160 160 - 60 (GFLOP/s)	36.1881
High Performance Conjugate Gradient - 192 192 192 - 60 (GFLOP/s)	36.2692

High Performance Conjugate Gradient - 104 104 104 - 1800	38.2269
High Performance Conjugate Gradient - 144 144 144 - 1800	36.8268
High Performance Conjugate Gradient - 160 160 160 - 1800	36.4244
High Performance Conjugate Gradient - 192 192 192 - 1800	36.5669
NAS Parallel Benchmarks - BT.C (Mop/s)	19680
NAS Parallel Benchmarks - CG.C (Mop/s)	12039
NAS Parallel Benchmarks - EP.C (Mop/s)	1836
NAS Parallel Benchmarks - EP.D (Mop/s)	1774
NAS Parallel Benchmarks - FT.C (Mop/s)	21897
NAS Parallel Benchmarks - IS.D (Mop/s)	1631
NAS Parallel Benchmarks - LU.C (Mop/s)	22341
NAS Parallel Benchmarks - MG.C (Mop/s)	25956
NAS Parallel Benchmarks - SP.B (Mop/s)	9597
NAS Parallel Benchmarks - SP.C (Mop/s)	9498
Quicksilver - CTS2 (Figure Of Merit)	8555000
Quicksilver - CORAL2 P1 (Figure Of Merit)	9667000
Quicksilver - CORAL2 P2 (Figure Of Merit)	8539000
miniBUDE - OpenMP - BM1 (GFInst/s)	1183
miniBUDE - OpenMP - BM1 (Billion Interactions/s)	47.318
miniBUDE - OpenMP - BM2 (GFInst/s)	1247
miniBUDE - OpenMP - BM2 (Billion Interactions/s)	49.895
CloverLeaf - clover_bm (sec)	42.14
CloverLeaf - clover_bm16 (sec)	355.54
CloverLeaf - clover_bm64_short (sec)	38.88
NAMD - A.w.3.5.A (ns/day)	1.87853
NAMD - S.w.1.0.6.A (ns/day)	0.57982
Dolfyn - C.F.D (sec)	15.385
lzbench - XZ 0 - Compression (MB/s)	45
lzbench - XZ 0 - Decompression (MB/s)	142
lzbench - Zstd 1 - Compression (MB/s)	573
lzbench - Zstd 1 - Decompression (MB/s)	1932
lzbench - Zstd 8 - Compression (MB/s)	109
lzbench - Zstd 8 - Decompression (MB/s)	2200
lzbench - Crush 0 - Compression (MB/s)	157
lzbench - Crush 0 - Decompression (MB/s)	580
lzbench - Brotli 0 - Compression (MB/s)	537
lzbench - Brotli 0 - Decompression (MB/s)	674
lzbench - Brotli 2 - Compression (MB/s)	224
lzbench - Brotli 2 - Decompression (MB/s)	802
lzbench - Libdeflate 1 - Compression (MB/s)	275
lzbench - Libdeflate 1 - Decompression (MB/s)	1333
SMHasher - wyhash (MiB/sec)	22829
SMHasher - wyhash (cycles/hash)	19.125
SMHasher - SHA3-256 (MiB/sec)	164.27
SMHasher - SHA3-256 (cycles/hash)	2360
SMHasher - Spooky32 (MiB/sec)	15340
SMHasher - Spooky32 (cycles/hash)	36.159
SMHasher - fasthash32 (MiB/sec)	6574

SMHasher - fasthash32 (cycles/hash)	30.059
SMHasher - FarmHash128 (MiB/sec)	15083
SMHasher - FarmHash128 (cycles/hash)	64.759
SMHasher - t1ha2_atonce (MiB/sec)	14941
SMHasher - t1ha2_atonce (cycles/hash)	27.833
SMHasher - F.x.A (MiB/sec)	28848
SMHasher - F.x.A (cycles/hash)	35.278
SMHasher - t.x (MiB/sec)	67572
SMHasher - t.x (cycles/hash)	27.832
SMHasher - M.x.A.N (MiB/sec)	39466
SMHasher - M.x.A.N (cycles/hash)	59.114
Algebraic Multi-Grid Benchmark (Figure Of Merit)	1985028000
libxsmm - 128 (GFLOPS/s)	1036
libxsmm - 256 (GFLOPS/s)	782.2
libxsmm - 32 (GFLOPS/s)	579.9
libxsmm - 64 (GFLOPS/s)	976.8
FFTE - N.2.3.C.F.R (MFLOPS)	200351
Laghos - T.P.P (Major Kernels Rate)	166.08
Laghos - S.B.W.u.m (Major Kernels Rate)	220.11
FFTW - Stock - 1D FFT Size 32 (Mflops)	11065
FFTW - Stock - 1D FFT Size 64 (Mflops)	10053
FFTW - Stock - 2D FFT Size 32 (Mflops)	11781
FFTW - Stock - 2D FFT Size 64 (Mflops)	9987
FFTW - Stock - 1D FFT Size 128 (Mflops)	10192
FFTW - Stock - 1D FFT Size 256 (Mflops)	10012
FFTW - Stock - 1D FFT Size 512 (Mflops)	10537
FFTW - Stock - 2D FFT Size 128 (Mflops)	9789
FFTW - Stock - 2D FFT Size 256 (Mflops)	9348
FFTW - Stock - 2D FFT Size 512 (Mflops)	9310
FFTW - Stock - 1D FFT Size 1024 (Mflops)	10520
FFTW - Stock - 1D FFT Size 2048 (Mflops)	10050
FFTW - Stock - 1D FFT Size 4096 (Mflops)	9644
FFTW - Stock - 2D FFT Size 1024 (Mflops)	9408
FFTW - Stock - 2D FFT Size 2048 (Mflops)	8916
FFTW - Stock - 2D FFT Size 4096 (Mflops)	7343
FFTW - Float + SSE - 1D FFT Size 32 (Mflops)	17589
FFTW - Float + SSE - 1D FFT Size 64 (Mflops)	25578
FFTW - Float + SSE - 2D FFT Size 32 (Mflops)	48305
FFTW - Float + SSE - 2D FFT Size 64 (Mflops)	49466
FFTW - Float + SSE - 1D FFT Size 128 (Mflops)	30189
FFTW - Float + SSE - 1D FFT Size 256 (Mflops)	50602
FFTW - Float + SSE - 1D FFT Size 512 (Mflops)	56872
FFTW - Float + SSE - 2D FFT Size 128 (Mflops)	48913
FFTW - Float + SSE - 2D FFT Size 256 (Mflops)	45454
FFTW - Float + SSE - 2D FFT Size 512 (Mflops)	40453
FFTW - Float + SSE - 1D FFT Size 1024 (Mflops)	61781
FFTW - Float + SSE - 1D FFT Size 2048 (Mflops)	65175
FFTW - Float + SSE - 1D FFT Size 4096 (Mflops)	57766

FFTW - Float + SSE - 2D FFT Size 1024 (Mflops)	44589
FFTW - Float + SSE - 2D FFT Size 2048 (Mflops)	40754
FFTW - Float + SSE - 2D FFT Size 4096 (Mflops)	30387
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - float - 128 (GFLOP/s)	79.3973
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - float - 256 (GFLOP/s)	96.9026
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - float - 512 (GFLOP/s)	35.4765
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - float - 128 (GFLOP/s)	127.019
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - float - 256 (GFLOP/s)	182.327
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - float - 512 (GFLOP/s)	107.269
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - double - 128 (GFLOP/s)	44.5283
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - double - 256 (GFLOP/s)	39.5084
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - double - 512 (GFLOP/s)	32.3183
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - float - 1024 (GFLOP/s)	83.2676
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - float - 128 (GFLOP/s)	58.2858
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - float - 256 (GFLOP/s)	95.1352
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - float - 512 (GFLOP/s)	33.3004
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - double - 128 (GFLOP/s)	72.7366
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - double - 256 (GFLOP/s)	85.0291
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - double - 512 (GFLOP/s)	59.8082
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - float - 1024 (GFLOP/s)	101.059
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - float - 128 (GFLOP/s)	99.2595
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - float - 256 (GFLOP/s)	164.349
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - float - 512 (GFLOP/s)	94.7724
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - double - 1024 (GFLOP/s)	46.0693
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - double - 128 (GFLOP/s)	34.1922

HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - double - 256 (GFLOP/s)	42.4887
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - double - 512 (GFLOP/s)	29.1157
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - float - 1024 (GFLOP/s)	81.6319
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - double - 1024 (GFLOP/s)	84.9632
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - double - 128 (GFLOP/s)	58.6601
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - double - 256 (GFLOP/s)	100.256
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - double - 512 (GFLOP/s)	52.9653
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - float - 1024 (GFLOP/s)	101.847
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - double - 1024 (GFLOP/s)	44.0651
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - double - 1024 (GFLOP/s)	84.0886
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - float-long - 128 (GFLOP/s)	75.4518
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - float-long - 256 (GFLOP/s)	100.586
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - float-long - 512 (GFLOP/s)	35.5166
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - float-long - 128 (GFLOP/s)	127.049
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - float-long - 256 (GFLOP/s)	161.937
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - float-long - 512 (GFLOP/s)	108.782
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - double-long - 128 (GFLOP/s)	47.0298
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - double-long - 256 (GFLOP/s)	40.5303
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - double-long - 512 (GFLOP/s)	32.5779
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - float-long - 1024 (GFLOP/s)	83.3802
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - float-long - 128 (GFLOP/s)	60.695
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - float-long - 256 (GFLOP/s)	94.9783
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - float-long - 512 (GFLOP/s)	33.6823

HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - double-long - 128 (GFLOP/s)	72.0331
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - double-long - 256 (GFLOP/s)	85.1394
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - double-long - 512 (GFLOP/s)	60.3264
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - float-long - 1024 (GFLOP/s)	100.117
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - float-long - 128 (GFLOP/s)	99.5577
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - float-long - 256 (GFLOP/s)	182.366
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - float-long - 512 (GFLOP/s)	95.3202
HeFFTe - Highly Efficient FFT for Exascale - c2c - FFTW - double-long - 1024 (GFLOP/s)	45.9741
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - double-long - 128 (GFLOP/s)	34.6695
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - double-long - 256 (GFLOP/s)	43.7171
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - double-long - 512 (GFLOP/s)	29.3916
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - float-long - 1024 (GFLOP/s)	81.8475
HeFFTe - Highly Efficient FFT for Exascale - r2c - FFTW - double-long - 1024 (GFLOP/s)	84.8438
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - double-long - 128 (GFLOP/s)	57.6071
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - double-long - 256 (GFLOP/s)	102.521
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - double-long - 512 (GFLOP/s)	53.7967
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - float-long - 1024 (GFLOP/s)	102.215
HeFFTe - Highly Efficient FFT for Exascale - c2c - Stock - double-long - 1024 (GFLOP/s)	43.9524
HeFFTe - Highly Efficient FFT for Exascale - r2c - Stock - double-long - 1024 (GFLOP/s)	84.0554
Pennant - sedovbig (Hydro Cycle Time - sec)	13.3329
Pennant - leblancbig (Hydro Cycle Time - sec)	7.749037
Timed MrBayes Analysis - P.P.A (sec)	112.917
QMCPACK - H4_ae (Execution Time - sec)	13.85
QMCPACK - Li2_STO_ae (Execution Time - sec)	142.47
QMCPACK - LiH_ae_MSD (Execution Time - sec)	122.53
QMCPACK - simple-H2O (Execution Time - sec)	28.866
QMCPACK - O_ae_pyscf_UHF (Execution Time - sec)	204.23
QMCPACK - FeCO6_b3lyp_gms (Execution Time - sec)	195.08
Timed HMMer Search - P.D.S (sec)	123.089

Timed MAFFT Alignment - M.S.A - LSU RNA (sec)	10.678
Monte Carlo Simulations of Ionised Nebulae - Gas HII40 (sec)	13.494
Monte Carlo Simulations of Ionised Nebulae - Dust 2D tau100.0	185.512
Quantum ESPRESSO - AUSURF112 (sec)	367.48
Remhos - S.R.E (sec)	22.167
nekRS - Kershaw (flops/rank)	9426280000
nekRS - TurboPipe Periodic (flops/rank)	5410360000
LAMMPS Molecular Dynamics Simulator - 20k Atoms (ns/day)	15.397
LAMMPS Molecular Dynamics Simulator - Rhodopsin Protein	17.348
LULESH (z/s)	30648
BLAKE2 (Cycles/Byte)	5.45
FFmpeg - libx264 - Live (FPS)	210.32
FFmpeg - libx265 - Live (FPS)	99.88
FFmpeg - libx264 - Upload (FPS)	13.03
FFmpeg - libx265 - Upload (FPS)	23.08
FFmpeg - libx264 - Platform (FPS)	49.38
FFmpeg - libx265 - Platform (FPS)	45.46
FFmpeg - libx264 - Video On Demand (FPS)	49.01
FFmpeg - libx265 - Video On Demand (FPS)	45.46
libgav1 - Chimera 1080p (FPS)	84.62
libgav1 - Summer Nature 4K (FPS)	41.36
libgav1 - S.N.1 (FPS)	79.62
libgav1 - C.1.1.b (FPS)	42.37
Bork File Encrypter - F.E.T (sec)	8.162
DaCapo Benchmark - Jython (msec)	5461
DaCapo Benchmark - Eclipse (msec)	11748
DaCapo Benchmark - GraphChi (msec)	2910
DaCapo Benchmark - Tradesoap (msec)	6177
DaCapo Benchmark - Tradebeans (msec)	14808
DaCapo Benchmark - Spring Boot (msec)	3173
DaCapo Benchmark - Apache Kafka (msec)	5191
DaCapo Benchmark - Apache Tomcat (msec)	2198
DaCapo Benchmark - jMonkeyEngine (msec)	6910
DaCapo Benchmark - Apache Cassandra (msec)	6337
DaCapo Benchmark - Apache Xalan XSLT (msec)	1066
DaCapo Benchmark - Batik SVG Toolkit (msec)	1608
DaCapo Benchmark - H2 Database Engine (msec)	3255
DaCapo Benchmark - F.P.F (msec)	595
DaCapo Benchmark - P.S.C.A (msec)	1891
DaCapo Benchmark - A.L.S.I (msec)	3690
DaCapo Benchmark - A.L.S.E (msec)	1916
DaCapo Benchmark - A.A.S.F (msec)	5302
DaCapo Benchmark - B.B.D.F (msec)	6812
DaCapo Benchmark - Z.1.2.B.I.P (msec)	508
DaCapo Benchmark - H.I.M.P.F.M.L (msec)	4299
Renaissance - Scala Dotty (ms)	822.8
Renaissance - Rand Forest (ms)	710.4
Renaissance - Apache Spark Bayes (ms)	546.8

Renaissance - Savina Reactors.IO (ms)	9163
Renaissance - A.S.P (ms)	3485
Renaissance - F.H.R (ms)	5895
Renaissance - I.M.D.S (ms)	5685
Renaissance - A.U.C.T (ms)	26024
Renaissance - G.A.U.J.F (ms)	2753
CacheBench - Read (MB/s)	10217
CacheBench - Write (MB/s)	57312
CacheBench - R.M.W (MB/s)	113467
LZ4 Compression - 1 - Compression Speed (MB/s)	742.96
LZ4 Compression - 1 - D.S (MB/s)	4592
LZ4 Compression - 2 - Compression Speed (MB/s)	339.38
LZ4 Compression - 2 - D.S (MB/s)	3964
LZ4 Compression - 3 - Compression Speed (MB/s)	118.71
LZ4 Compression - 3 - D.S (MB/s)	4195
LZ4 Compression - 9 - Compression Speed (MB/s)	42.61
LZ4 Compression - 9 - D.S (MB/s)	4418
LZ4 Compression - 12 - Compression Speed (MB/s)	13.55
LZ4 Compression - 12 - D.S (MB/s)	4504
Zstd Compression - 3 - Compression Speed (MB/s)	2669
Zstd Compression - 8 - Compression Speed (MB/s)	1068
Zstd Compression - 8 - D.S (MB/s)	1663
Zstd Compression - 12 - Compression Speed (MB/s)	312.1
Zstd Compression - 12 - D.S (MB/s)	1707
Zstd Compression - 19 - Compression Speed (MB/s)	19.5
Zstd Compression - 19 - D.S (MB/s)	1518
Zstd Compression - 3, Long Mode - Compression Speed (MB/s)	747.7
Zstd Compression - 3, Long Mode - D.S (MB/s)	1528
Zstd Compression - 8, Long Mode - Compression Speed (MB/s)	712.5
Zstd Compression - 8, Long Mode - D.S (MB/s)	1680
Zstd Compression - 19, Long Mode - Compression Speed (MB/s)	9.35
Zstd Compression - 19, Long Mode - D.S (MB/s)	1415
JPEG-XL libjxl - PNG - 80 (MP/s)	45.006
JPEG-XL libjxl - PNG - 90 (MP/s)	41.978
JPEG-XL libjxl - JPEG - 80 (MP/s)	45.636
JPEG-XL libjxl - JPEG - 90 (MP/s)	42.196
JPEG-XL libjxl - PNG - 100 (MP/s)	30.253
JPEG-XL libjxl - JPEG - 100 (MP/s)	30.622
JPEG-XL Decoding libjxl - 1 (MP/s)	65.806
JPEG-XL Decoding libjxl - All (MP/s)	617.61
WebP Image Encode - Default (MP/s)	18.71
WebP Image Encode - Quality 100 (MP/s)	11.90
WebP Image Encode - Q.1.L (MP/s)	1.62
WebP Image Encode - Q.1.H.C (MP/s)	3.84
WebP Image Encode - Q.1.L.H.C (MP/s)	0.64
WebP2 Image Encode - Default (MP/s)	9.14
WebP2 Image Encode - Q.7.C.E.7 (MP/s)	0.39
WebP2 Image Encode - Q.9.C.E.7 (MP/s)	0.18

WebP2 Image Encode - Q.1.C.E.5 (MP/s)	9.04
WebP2 Image Encode - Q.1.L.C (MP/s)	0.04
srsRAN Project - P.P.B.T.T (Mbps)	12678
srsRAN Project - P.P.B.T.T (Mbps)	1816
srsRAN Project - P.P.B.T.T (Mbps)	488
srsRAN Project - P.P.B.T.T (Mbps)	112
Nettle - aes256 (Mbyte/s)	6177
Nettle - chacha (Mbyte/s)	1016
Nettle - sha512 (Mbyte/s)	628.33
Nettle - poly1305-aes (Mbyte/s)	2897
LuaJIT - Composite (Mflops)	1612
LuaJIT - Monte Carlo (Mflops)	499.52
LuaJIT - F.F.T (Mflops)	319.45
LuaJIT - S.M.M (Mflops)	1436
LuaJIT - D.L.M.F (Mflops)	3778
LuaJIT - J.S.O.R (Mflops)	2029
Botan - KASUMI (MiB/s)	95.59
Botan - KASUMI - Decrypt (MiB/s)	91.96
Botan - AES-256 (MiB/s)	6104
Botan - AES-256 - Decrypt (MiB/s)	6202
Botan - Twofish (MiB/s)	355.547
Botan - Twofish - Decrypt (MiB/s)	375.715
Botan - Blowfish (MiB/s)	423.312
Botan - Blowfish - Decrypt (MiB/s)	421.766
Botan - CAST-256 (MiB/s)	144.236
Botan - CAST-256 - Decrypt (MiB/s)	144.232
Botan - ChaCha20Poly1305 (MiB/s)	815.62
Botan - ChaCha20Poly1305 - Decrypt (MiB/s)	800.666
LuaRadio - F.B.t.B.F.F (MiB/s)	541.4
LuaRadio - F.D.F (MiB/s)	259.4
LuaRadio - Hilbert Transform (MiB/s)	496.1
LuaRadio - Complex Phase (MiB/s)	662.5
LibRaw - P.P.B (Mpix/sec)	42.13
Crafty - Elapsed Time (Nodes/s)	10492908
TSCP - A.C.P (Nodes/s)	1737470
John The Ripper - bcrypt (Real C/S)	65568
John The Ripper - WPA PSK (Real C/S)	139605
John The Ripper - Blowfish (Real C/S)	62014
John The Ripper - HMAC-SHA512 (Real C/S)	69826000
John The Ripper - MD5 (Real C/S)	3644000
LuxCoreRender - DLSC - CPU (M samples/sec)	5.66
LuxCoreRender - Danish Mood - CPU (M samples/sec)	3.84
LuxCoreRender - Orange Juice - CPU (M samples/sec)	8.85
LuxCoreRender - LuxCore Benchmark - CPU (M samples/sec)	4.14
LuxCoreRender - R.C.a.P - CPU (M samples/sec)	7.77
GraphicsMagick - Swirl (Iterations/min)	392
GraphicsMagick - Rotate (Iterations/min)	157
GraphicsMagick - Sharpen (Iterations/min)	88

GraphicsMagick - Enhanced (Iterations/min)	138
GraphicsMagick - Resizing (Iterations/min)	609
GraphicsMagick - Noise-Gaussian (Iterations/min)	159
GraphicsMagick - HWB Color Space (Iterations/min)	373
easyWave - e.G.B.S - 240 (sec)	2.505
easyWave - e.G.B.S - 1200 (sec)	36.348
easyWave - e.G.B.S - 2400 (sec)	92.672
dav1d - Chimera 1080p (FPS)	480.56
dav1d - Summer Nature 4K (FPS)	285.95
dav1d - S.N.1 (FPS)	720.27
dav1d - C.1.1.b (FPS)	443.23
Kvazaar - Bosphorus 4K - Slow (FPS)	21.71
Kvazaar - Bosphorus 4K - Medium (FPS)	21.94
Kvazaar - Bosphorus 1080p - Slow (FPS)	65.78
Kvazaar - Bosphorus 1080p - Medium (FPS)	69.37
Kvazaar - Bosphorus 4K - Very Fast (FPS)	45.65
Kvazaar - Bosphorus 4K - Super Fast (FPS)	55.99
Kvazaar - Bosphorus 4K - Ultra Fast (FPS)	58.06
Kvazaar - Bosphorus 1080p - Very Fast (FPS)	148.1
Kvazaar - Bosphorus 1080p - Super Fast (FPS)	198.4
Kvazaar - Bosphorus 1080p - Ultra Fast (FPS)	230.42
rav1e - 1 (FPS)	0.918
rav1e - 5 (FPS)	3.449
rav1e - 6 (FPS)	4.526
rav1e - 10 (FPS)	9.86
SVT-HEVC - 1 - Bosphorus 4K (FPS)	7.46
SVT-HEVC - 7 - Bosphorus 4K (FPS)	124.33
SVT-HEVC - 10 - Bosphorus 4K (FPS)	189.39
SVT-HEVC - 1 - Bosphorus 1080p (FPS)	29.57
SVT-HEVC - 7 - Bosphorus 1080p (FPS)	334.08
SVT-HEVC - 10 - Bosphorus 1080p (FPS)	555.04
SVT-VP9 - VMAF Optimized - Bosphorus 4K (FPS)	163.88
SVT-VP9 - VMAF Optimized - Bosphorus 1080p (FPS)	448.27
SVT-VP9 - P.S.O - Bosphorus 4K (FPS)	166.74
SVT-VP9 - P.S.O - Bosphorus 1080p (FPS)	445.37
SVT-VP9 - V.Q.O - Bosphorus 4K (FPS)	140.55
SVT-VP9 - V.Q.O - Bosphorus 1080p (FPS)	372.74
uvg266 - Bosphorus 4K - Slow (FPS)	13.66
uvg266 - Bosphorus 4K - Medium (FPS)	14.57
uvg266 - Bosphorus 1080p - Slow (FPS)	38.63
uvg266 - Bosphorus 1080p - Medium (FPS)	43.48
uvg266 - Bosphorus 4K - Very Fast (FPS)	34.99
uvg266 - Bosphorus 4K - Super Fast (FPS)	34.4
uvg266 - Bosphorus 4K - Ultra Fast (FPS)	36.64
uvg266 - Bosphorus 1080p - Very Fast (FPS)	114.97
uvg266 - Bosphorus 1080p - Super Fast (FPS)	121.57
uvg266 - Bosphorus 1080p - Ultra Fast (FPS)	132.01
VP9 libvpx Encoding - Speed 0 - Bosphorus 4K (FPS)	6.78

VP9 libvpx Encoding - Speed 5 - Bosphorus 4K (FPS)	16.77
VP9 libvpx Encoding - Speed 0 - Bosphorus 1080p (FPS)	12.36
VP9 libvpx Encoding - Speed 5 - Bosphorus 1080p (FPS)	23.85
VVenC - Bosphorus 4K - Fast (FPS)	6.157
VVenC - Bosphorus 4K - Faster (FPS)	12.564
VVenC - Bosphorus 1080p - Fast (FPS)	16.307
VVenC - Bosphorus 1080p - Faster (FPS)	34.058
x264 - Bosphorus 4K (FPS)	70.58
x264 - Bosphorus 1080p (FPS)	210.28
x265 - Bosphorus 4K (FPS)	24.68
x265 - Bosphorus 1080p (FPS)	71.43
ACES DGEMM - S.F.P.R (GFLOP/s)	13.53502
Intel Open Image Denoise - RT.hdr_alb_nrm.3840x2160 - CPU-Only (Images / Sec)	1.18
Intel Open Image Denoise - RT.ldr_alb_nrm.3840x2160 - CPU-Only (Images / Sec)	1.17
Intel Open Image Denoise - RTLightmap.hdr.4096x4096 - CPU-Only (Images / Sec)	0.57
OpenVKL - v.I (Items / Sec)	568
OpenVKL - v.S (Items / Sec)	309
OSPRay - particle_volume/ao/real_time (Items/sec)	10.6969
OSPRay - particle_volume/scivis/real_time (Items/sec)	10.7531
OSPRay - particle_volume/pathtracer/real_time (Items/sec)	131.705
OSPRay - gravity_spheres_volume/dim_512/ao/real_time	5.16569
OSPRay - gravity_spheres_volume/dim_512/scivis/real_time	4.82767
OSPRay - gravity_spheres_volume/dim_512/pathtracer/real_time (Items/sec)	7.57619
Himeno Benchmark - P.P.S (MFLOPS)	4558
7-Zip Compression - Compression Rating (MIPS)	286519
7-Zip Compression - D.R (MIPS)	250400
Stockfish - Chess Benchmark (Nodes/s)	74949025
asmFish - 1.H.M.2.D (Nodes/s)	91508382
Stargate Digital Audio Workstation - 44100 - 512 (Render Ratio)	5.127756
Stargate Digital Audio Workstation - 96000 - 512 (Render Ratio)	3.66907
Stargate Digital Audio Workstation - 192000 - 512 (Render Ratio)	2.365724
Stargate Digital Audio Workstation - 44100 - 1024 (Render Ratio)	5.845907
Stargate Digital Audio Workstation - 480000 - 512 (Render Ratio)	5.188774
Stargate Digital Audio Workstation - 96000 - 1024 (Render Ratio)	4.087926
Stargate Digital Audio Workstation - 192000 - 1024 (Render Ratio)	2.66621
Stargate Digital Audio Workstation - 480000 - 1024 (Render Ratio)	5.642152
PJSIP - INVITE (Responses/sec)	3721
PJSIP - OPTIONS, Stateful (Responses/sec)	7111
PJSIP - OPTIONS, Stateless (Responses/sec)	27491
Timed Apache Compilation - Time To Compile (sec)	19.369
Timed FFmpeg Compilation - Time To Compile (sec)	28.101
Timed GCC Compilation - Time To Compile (sec)	966.593
Timed GDB GNU Debugger Compilation - Time To Compile (sec)	51.979
Timed Gem5 Compilation - Time To Compile (sec)	307.91

Timed ImageMagick Compilation - Time To Compile (sec)	12.422
Timed Linux Kernel Compilation - defconfig (sec)	46.43
Timed Linux Kernel Compilation - allmodconfig (sec)	545.232
Timed LLVM Compilation - Ninja (sec)	247.428
Timed LLVM Compilation - Unix Makefiles (sec)	308.53
Timed MPlayer Compilation - Time To Compile (sec)	12.356
Timed Node.js Compilation - Time To Compile (sec)	294.11
Timed PHP Compilation - Time To Compile (sec)	40.75
Timed CPython Compilation - Default (sec)	14.647
Timed CPython Compilation - R.B.P.L.O (sec)	252.546
Build2 - Time To Compile (sec)	70.898
C-Ray - 4K - 16 (sec)	77.407
C-Ray - 5K - 16 (sec)	142.257
C-Ray - 1080p - 16 (sec)	19.768
Parallel BZIP2 Compression - F.1.0.R.a.m.i.C (sec)	2.761081
POV-Ray - Trace Time (sec)	14.237
Smallpt - G.I.R.1.S (sec)	2.759
rays1bench - Large Scene (mrays/s)	254.19
oneDNN - IP Shapes 1D - CPU (ms)	1.62765
oneDNN - IP Shapes 3D - CPU (ms)	0.789097
oneDNN - C.B.S.A - CPU (ms)	1.08781
oneDNN - D.B.s - CPU (ms)	6.0665
oneDNN - D.B.s - CPU (ms)	2.72386
oneDNN - R.N.N.T - CPU (ms)	1501
oneDNN - R.N.N.I - CPU (ms)	1073
AOBench - 2048 x 2048 - Total Time (sec)	33.848
Timed Eigen Compilation - Time To Compile (sec)	74.96
Timed Erlang/OTP Compilation - Time To Compile (sec)	87.934
Timed Wasmer Compilation - Time To Compile (sec)	32.948
Gzip Compression - L.S.T.A.T.t.g (sec)	36.996
XZ Compression - C.u.1.0.3.s.i.i.C.L.9 (sec)	18.341
dcraw - R.T.P.I.C (sec)	40.719
DeepSpeech - CPU (sec)	100.35808
Monkey Audio Encoding - WAV To APE (sec)	11.729
FLAC Audio Encoding - WAV To FLAC (sec)	17.939
LAME MP3 Encoding - WAV To MP3 (sec)	6.752
Opus Codec Encoding - WAV To Opus Encode (sec)	27.42
eSpeak-NG Speech Engine - T.T.S.S (sec)	26.701
Gcrypt Library (sec)	214.019
Hackbench - 1 - Thread (sec)	3.515
Hackbench - 2 - Thread (sec)	4.067
Hackbench - 4 - Thread (sec)	7.194
Hackbench - 8 - Thread (sec)	13.23
Hackbench - 1 - Process (sec)	4.117
Hackbench - 16 - Thread (sec)	28.128
Hackbench - 2 - Process (sec)	3.876
Hackbench - 4 - Process (sec)	7.445
Hackbench - 8 - Process (sec)	12.87

Hackbench - 16 - Process (sec)	22.823
Hackbench - 32 - Process (sec)	52.084
m-queens - Time To Solve (sec)	17.311
Ngspice - C2670 (sec)	124.95
Ngspice - C7552 (sec)	96.765
Perl Benchmarks - Pod2html (sec)	0.10799629
Perl Benchmarks - Interpreter (sec)	0.00160719
Radiance Benchmark - Serial (sec)	501.383
Radiance Benchmark - SMP Parallel (sec)	157.666
R Benchmark (sec)	0.1297
RNNoise - 2.M.L.T.S (sec)	10.743
System GZIP Decompression (sec)	2.88
System XZ Decompression (sec)	3.144
Tachyon - Total Time (sec)	40.5051
Google SynthMark - VoiceMark_100 (Voices)	949.377
Aircrack-ng (k/s)	113198
SecureMark - SecureMark-TLS (marks)	272632
OpenJPEG - N.C.P.M (ms)	82248
ArrayFire - BLAS CPU FP16 (GFLOPS)	96.8544
ArrayFire - BLAS CPU FP32 (GFLOPS)	120.206
ArrayFire - Black Scholes CPU (ms)	53.431779
ArrayFire - C.G.C (ms)	37.05
ArrayFire - N.N.C.F (s)	14.1725
OpenSSL - SHA256 (byte/s)	46142086610
OpenSSL - SHA512 (byte/s)	14538080890
OpenSSL - RSA4096 (sign/s)	8420
OpenSSL - RSA4096 (verify/s)	539365
OpenSSL - ChaCha20 (byte/s)	135647678460
OpenSSL - AES-128-GCM (byte/s)	147503087070
OpenSSL - AES-256-GCM (byte/s)	134757226360
OpenSSL - ChaCha20-Poly1305 (byte/s)	91296493020
Node.js V8 Web Tooling Benchmark (runs/s)	10.57
Liquid-DSP - 1 - 256 - 32 (samples/s)	38659000
Liquid-DSP - 1 - 256 - 57 (samples/s)	49260000
Liquid-DSP - 2 - 256 - 32 (samples/s)	77315000
Liquid-DSP - 2 - 256 - 57 (samples/s)	97788000
Liquid-DSP - 4 - 256 - 32 (samples/s)	154440000
Liquid-DSP - 4 - 256 - 57 (samples/s)	193650000
Liquid-DSP - 8 - 256 - 32 (samples/s)	308730000
Liquid-DSP - 8 - 256 - 57 (samples/s)	391320000
Liquid-DSP - 1 - 256 - 512 (samples/s)	9702300
Liquid-DSP - 16 - 256 - 32 (samples/s)	609370000
Liquid-DSP - 16 - 256 - 57 (samples/s)	771070000
Liquid-DSP - 2 - 256 - 512 (samples/s)	19359000
Liquid-DSP - 32 - 256 - 32 (samples/s)	1181000000
Liquid-DSP - 32 - 256 - 57 (samples/s)	1479300000
Liquid-DSP - 4 - 256 - 512 (samples/s)	38631000
Liquid-DSP - 64 - 256 - 32 (samples/s)	2338400000

Liquid-DSP - 64 - 256 - 57 (samples/s)	2006800000
Liquid-DSP - 8 - 256 - 512 (samples/s)	76772000
Liquid-DSP - 16 - 256 - 512 (samples/s)	149850000
Liquid-DSP - 32 - 256 - 512 (samples/s)	293170000
Liquid-DSP - 64 - 256 - 512 (samples/s)	484120000
etcd - PUT - 50 - 100 (Reqs/sec)	55823
etcd - PUT - 50 - 100 - Average Latency (ms)	1.8
etcd - PUT - 100 - 100 (Reqs/sec)	53091
etcd - PUT - 100 - 100 - Average Latency (ms)	1.9
etcd - PUT - 50 - 1000 (Reqs/sec)	57818
etcd - PUT - 50 - 1000 - Average Latency (ms)	17.2
etcd - PUT - 500 - 100 (Reqs/sec)	54358
etcd - PUT - 500 - 100 - Average Latency (ms)	1.8
etcd - PUT - 100 - 1000 (Reqs/sec)	57779
etcd - PUT - 100 - 1000 - Average Latency (ms)	17.3
etcd - PUT - 500 - 1000 (Reqs/sec)	57772
etcd - PUT - 500 - 1000 - Average Latency (ms)	17.3
etcd - RANGE - 50 - 100 (Reqs/sec)	55826
etcd - RANGE - 50 - 100 - Average Latency (ms)	1.8
etcd - RANGE - 100 - 100 (Reqs/sec)	52759
etcd - RANGE - 100 - 100 - Average Latency (ms)	1.9
etcd - RANGE - 50 - 1000 (Reqs/sec)	58038
etcd - RANGE - 50 - 1000 - Average Latency (ms)	17.2
etcd - RANGE - 500 - 100 (Reqs/sec)	54342
etcd - RANGE - 500 - 100 - Average Latency (ms)	1.8
etcd - RANGE - 100 - 1000 (Reqs/sec)	57230
etcd - RANGE - 100 - 1000 - Average Latency (ms)	17.4
etcd - RANGE - 500 - 1000 (Reqs/sec)	56834
etcd - RANGE - 500 - 1000 - Average Latency (ms)	17.6
CockroachDB - MoVR - 128 (ops/s)	782.4
CockroachDB - MoVR - 256 (ops/s)	778.7
CockroachDB - MoVR - 512 (ops/s)	777
CockroachDB - MoVR - 1024 (ops/s)	778
CockroachDB - KV, 10% Reads - 128 (ops/s)	51275
CockroachDB - KV, 10% Reads - 256 (ops/s)	54343
CockroachDB - KV, 10% Reads - 512 (ops/s)	52145
CockroachDB - KV, 50% Reads - 128 (ops/s)	65526
CockroachDB - KV, 50% Reads - 256 (ops/s)	69750
CockroachDB - KV, 50% Reads - 512 (ops/s)	65154
CockroachDB - KV, 60% Reads - 128 (ops/s)	69898
CockroachDB - KV, 60% Reads - 256 (ops/s)	70445
CockroachDB - KV, 60% Reads - 512 (ops/s)	68076
CockroachDB - KV, 95% Reads - 128 (ops/s)	84653
CockroachDB - KV, 95% Reads - 256 (ops/s)	85064
CockroachDB - KV, 95% Reads - 512 (ops/s)	83369
CockroachDB - KV, 10% Reads - 1024 (ops/s)	50142
CockroachDB - KV, 50% Reads - 1024 (ops/s)	63063
CockroachDB - KV, 60% Reads - 1024 (ops/s)	65985

CockroachDB - KV, 95% Reads - 1024 (ops/s)	81763
Dragonflydb - 10 - 1:1 (Ops/sec)	9116314
Dragonflydb - 10 - 1:5 (Ops/sec)	8843864
Dragonflydb - 10 - 5:1 (Ops/sec)	8631058
Dragonflydb - 20 - 1:1 (Ops/sec)	12021139
Dragonflydb - 20 - 1:5 (Ops/sec)	11008429
Dragonflydb - 20 - 5:1 (Ops/sec)	10984232
Dragonflydb - 50 - 1:1 (Ops/sec)	14573601
Dragonflydb - 50 - 1:5 (Ops/sec)	12968671
Dragonflydb - 50 - 5:1 (Ops/sec)	13479187
Dragonflydb - 10 - 1:10 (Ops/sec)	9432493
Dragonflydb - 20 - 1:10 (Ops/sec)	13034439
Dragonflydb - 50 - 1:10 (Ops/sec)	14428690
Dragonflydb - 10 - 1:100 (Ops/sec)	9166077
Dragonflydb - 20 - 1:100 (Ops/sec)	11382527
Dragonflydb - 50 - 1:100 (Ops/sec)	13328810
Redis - GET - 50 (Reqs/sec)	3496999
Redis - SET - 50 (Reqs/sec)	2516877
Redis - GET - 500 (Reqs/sec)	2681588
Redis - LPOP - 50 (Reqs/sec)	3534132
Redis - SADD - 50 (Reqs/sec)	2658586
Redis - SET - 500 (Reqs/sec)	2338567
Redis - GET - 1000 (Reqs/sec)	2337037
Redis - LPOP - 500 (Reqs/sec)	2760803
Redis - LPUSH - 50 (Reqs/sec)	2183028
Redis - SADD - 500 (Reqs/sec)	2208911
Redis - SET - 1000 (Reqs/sec)	2368588
Redis - LPOP - 1000 (Reqs/sec)	1960666
Redis - LPUSH - 500 (Reqs/sec)	1982275
Redis - SADD - 1000 (Reqs/sec)	2475782
Redis - LPUSH - 1000 (Reqs/sec)	1954000
FinanceBench - Repo OpenMP (ms)	31600
FinanceBench - Bonds OpenMP (ms)	46276
ASTC Encoder - Fast (MT/s)	548.4363
ASTC Encoder - Medium (MT/s)	213.1554
ASTC Encoder - Thorough (MT/s)	28.2533
ASTC Encoder - Exhaustive (MT/s)	2.398
ASTC Encoder - Very Thorough (MT/s)	3.8219
libjpeg-turbo tjbench - D.T (Megapixels/sec)	221.873289
MariaDB - oltp_read_only - 1 (Queries/sec)	20276
MariaDB - oltp_read_only - 16 (Queries/sec)	22233
MariaDB - oltp_read_only - 32 (Queries/sec)	19410
MariaDB - oltp_read_only - 64 (Queries/sec)	19137
MariaDB - oltp_read_write - 1 (Queries/sec)	18016
MariaDB - oltp_write_only - 1 (Queries/sec)	19941
MariaDB - oltp_read_only - 128 (Queries/sec)	18780
MariaDB - oltp_read_only - 256 (Queries/sec)	18620
MariaDB - oltp_read_only - 512 (Queries/sec)	18106

MariaDB - oltp_read_only - 768 (Queries/sec)	18092
MariaDB - oltp_read_write - 16 (Queries/sec)	55089
MariaDB - oltp_read_write - 32 (Queries/sec)	67274
MariaDB - oltp_read_write - 64 (Queries/sec)	70092
MariaDB - oltp_write_only - 16 (Queries/sec)	103628
MariaDB - oltp_write_only - 32 (Queries/sec)	117274
MariaDB - oltp_write_only - 64 (Queries/sec)	116122
MariaDB - oltp_point_select - 1 (Queries/sec)	27724
MariaDB - oltp_read_write - 128 (Queries/sec)	84260
MariaDB - oltp_read_write - 256 (Queries/sec)	87974
MariaDB - oltp_read_write - 512 (Queries/sec)	96283
MariaDB - oltp_update_index - 1 (Queries/sec)	7750
MariaDB - oltp_write_only - 128 (Queries/sec)	135281
MariaDB - oltp_write_only - 256 (Queries/sec)	170955
MariaDB - oltp_write_only - 512 (Queries/sec)	181901
MariaDB - oltp_write_only - 768 (Queries/sec)	178869
MariaDB - oltp_point_select - 16 (Queries/sec)	23638
MariaDB - oltp_point_select - 32 (Queries/sec)	21699
MariaDB - oltp_point_select - 64 (Queries/sec)	20697
MariaDB - oltp_update_index - 16 (Queries/sec)	43482
MariaDB - oltp_update_index - 32 (Queries/sec)	54778
MariaDB - oltp_update_index - 64 (Queries/sec)	57104
MariaDB - oltp_point_select - 128 (Queries/sec)	20991
MariaDB - oltp_point_select - 256 (Queries/sec)	20519
MariaDB - oltp_point_select - 512 (Queries/sec)	20599
MariaDB - oltp_point_select - 768 (Queries/sec)	21745
MariaDB - oltp_update_index - 128 (Queries/sec)	54822
MariaDB - oltp_update_index - 256 (Queries/sec)	59033
MariaDB - oltp_update_index - 512 (Queries/sec)	59811
MariaDB - oltp_update_index - 768 (Queries/sec)	71067
MariaDB - oltp_update_non_index - 1 (Queries/sec)	8194
MariaDB - oltp_update_non_index - 16 (Queries/sec)	43616
MariaDB - oltp_update_non_index - 32 (Queries/sec)	56951
MariaDB - oltp_update_non_index - 64 (Queries/sec)	60448
MariaDB - oltp_update_non_index - 128 (Queries/sec)	63630
MariaDB - oltp_update_non_index - 256 (Queries/sec)	67711
MariaDB - oltp_update_non_index - 512 (Queries/sec)	86315
MariaDB - oltp_update_non_index - 768 (Queries/sec)	92049
TensorFlow Lite - SqueezeNet (us)	6512
TensorFlow Lite - Inception V4 (us)	34351
TensorFlow Lite - NASNet Mobile (us)	39517
TensorFlow Lite - Mobilenet Float (us)	5312
TensorFlow Lite - Mobilenet Quant (us)	7560
TensorFlow Lite - I.R.V (us)	47594
MariaDB mariadb-slap - 1 (Queries/sec)	7874
MariaDB mariadb-slap - 32 (Queries/sec)	1379
MariaDB mariadb-slap - 64 (Queries/sec)	783
MariaDB mariadb-slap - 128 (Queries/sec)	417

MariaDB mariadb-slap - 256 (Queries/sec)	213
MariaDB mariadb-slap - 512 (Queries/sec)	106
MariaDB mariadb-slap - 1024 (Queries/sec)	40
MariaDB mariadb-slap - 2048 (Queries/sec)	47
MariaDB mariadb-slap - 4096 (Queries/sec)	57
MariaDB mariadb-slap - 8192 (Queries/sec)	62
KTX-Software toktx - UASTC 3 (sec)	4.592
KTX-Software toktx - Zstd Compression 9 (sec)	2.415
KTX-Software toktx - Z.C.1 (sec)	16.962
KTX-Software toktx - U.3.Z.C.1 (sec)	9.644
KTX-Software toktx - U.4.Z.C.1 (sec)	89.913
GEGL - Crop (sec)	6.835
GEGL - Scale (sec)	5.227
GEGL - Cartoon (sec)	90.238
GEGL - Reflect (sec)	27.91
GEGL - Antialias (sec)	39.959
GEGL - Tile Glass (sec)	31.916
GEGL - Wavelet Blur (sec)	59.371
GEGL - Color Enhance (sec)	47.963
GEGL - Rotate 90 Degrees (sec)	38.546
GNU Octave Benchmark (sec)	5.631
librsvg - SVG Files To PNG (sec)	21.625
Google Draco - Lion (ms)	5147
Google Draco - Church Facade (ms)	6454
BenchmarkMutex - S.M.L.S (ns)	18.2
BenchmarkMutex - M.L.U.s (ns)	21.7
BenchmarkMutex - M.L.U.s.m (ns)	15.2
BenchmarkMutex - M.L.U.s.m (ns)	18.1
BenchmarkMutex - S.R.A.A (ns)	10.2
BenchmarkMutex - M.L.U.s (ns)	34.6
BenchmarkMutex - M.L.U.p (ns)	11.5
BenchmarkMutex - M.L.U.t (ns)	9.96
Stress-NG - Hash (Bogo Ops/s)	7433588
Stress-NG - MMAP (Bogo Ops/s)	44158
Stress-NG - NUMA (Bogo Ops/s)	27.56
Stress-NG - Pipe (Bogo Ops/s)	13109032
Stress-NG - Poll (Bogo Ops/s)	3145062
Stress-NG - Zlib (Bogo Ops/s)	3139
Stress-NG - Futex (Bogo Ops/s)	2128555
Stress-NG - MEMFD (Bogo Ops/s)	2330
Stress-NG - Mutex (Bogo Ops/s)	290299
Stress-NG - Atomic (Bogo Ops/s)	230.2
Stress-NG - Crypto (Bogo Ops/s)	85185
Stress-NG - Malloc (Bogo Ops/s)	339059810
Stress-NG - Cloning (Bogo Ops/s)	2313
Stress-NG - Forking (Bogo Ops/s)	47732
Stress-NG - Pthread (Bogo Ops/s)	105638
Stress-NG - AVL Tree (Bogo Ops/s)	801.26

Stress-NG - SENDFILE (Bogo Ops/s)	437508
Stress-NG - CPU Cache (Bogo Ops/s)	728593
Stress-NG - CPU Stress (Bogo Ops/s)	85249
Stress-NG - Power Math (Bogo Ops/s)	70143
Stress-NG - Semaphores (Bogo Ops/s)	41179083
Stress-NG - Matrix Math (Bogo Ops/s)	150948
Stress-NG - Vector Math (Bogo Ops/s)	221535
Stress-NG - AVX-512 VNNI (Bogo Ops/s)	1510522
Stress-NG - Function Call (Bogo Ops/s)	23863
Stress-NG - x86_64 RdRand (Bogo Ops/s)	10630838
Stress-NG - Floating Point (Bogo Ops/s)	10978
Stress-NG - Matrix 3D Math (Bogo Ops/s)	6846
Stress-NG - Memory Copying (Bogo Ops/s)	9644
Stress-NG - Vector Shuffle (Bogo Ops/s)	21949
Stress-NG - Mixed Scheduler (Bogo Ops/s)	25096
Stress-NG - Socket Activity (Bogo Ops/s)	16085
Stress-NG - Exponential Math (Bogo Ops/s)	157124
Stress-NG - Jpeg Compression (Bogo Ops/s)	47093
Stress-NG - Logarithmic Math (Bogo Ops/s)	212069
Stress-NG - Wide Vector Math (Bogo Ops/s)	1450476
Stress-NG - Context Switching (Bogo Ops/s)	9453147
Stress-NG - Fractal Generator (Bogo Ops/s)	216.23
Stress-NG - Radix String Sort (Bogo Ops/s)	1578
Stress-NG - Fused Multiply-Add (Bogo Ops/s)	26996105
Stress-NG - Trigonometric Math (Bogo Ops/s)	85677
Stress-NG - B.I.S (Bogo Ops/s)	321.67
Stress-NG - V.F.P (Bogo Ops/s)	99833
Stress-NG - G.C.S.F (Bogo Ops/s)	30314200
Stress-NG - G.Q.D.S (Bogo Ops/s)	815.4
Stress-NG - S.V.M.P (Bogo Ops/s)	3217312
Caffe - AlexNet - CPU - 100 (ms)	45395
Caffe - AlexNet - CPU - 200 (ms)	90305
Caffe - AlexNet - CPU - 1000 (ms)	451203
Caffe - GoogleNet - CPU - 100 (ms)	106070
Caffe - GoogleNet - CPU - 200 (ms)	212464
Caffe - GoogleNet - CPU - 1000 (ms)	1062720
Mobile Neural Network - nasnet (ms)	83.537
Mobile Neural Network - mobilenetV3 (ms)	11.795
Mobile Neural Network - squeezenetv1.1 (ms)	18.09
Mobile Neural Network - resnet-v2-50 (ms)	72.541
Mobile Neural Network - SqueezeNetV1.0 (ms)	8.829
Mobile Neural Network - MobileNetV2_224 (ms)	5.705
Mobile Neural Network - mobilenet-v1-1.0 (ms)	4.293
Mobile Neural Network - inception-v3 (ms)	25.375
NCNN - CPU - mobilenet (ms)	56.62
NCNN - CPU-v2-v2 - mobilenet-v2 (ms)	8.19
NCNN - CPU-v3-v3 - mobilenet-v3 (ms)	20.45
NCNN - CPU - shufflenet-v2 (ms)	17.36

NCNN - CPU - mnasnet (ms)	14.14
NCNN - CPU - efficientnet-b0 (ms)	38.28
NCNN - CPU - blazeface (ms)	12.14
NCNN - CPU - googlenet (ms)	23.56
NCNN - CPU - vgg16 (ms)	28.33
NCNN - CPU - resnet18 (ms)	18.37
NCNN - CPU - alexnet (ms)	11.77
NCNN - CPU - resnet50 (ms)	34.45
NCNN - CPU - yolov4-tiny (ms)	30.27
NCNN - CPU - squeezenet_ssd (ms)	70.6
NCNN - CPU - regnety_400m (ms)	58.04
NCNN - CPU - vision_transformer (ms)	65.26
NCNN - CPU - FastestDet (ms)	24.45
NCNN - Vulkan GPU - mobilenet (ms)	18.18
NCNN - Vulkan GPU-v2-v2 - mobilenet-v2 (ms)	23.64
NCNN - Vulkan GPU-v3-v3 - mobilenet-v3 (ms)	19.41
NCNN - Vulkan GPU - shufflenet-v2 (ms)	22.58
NCNN - Vulkan GPU - mnasnet (ms)	18.44
NCNN - Vulkan GPU - efficientnet-b0 (ms)	23.87
NCNN - Vulkan GPU - blazeface (ms)	9.46
NCNN - Vulkan GPU - googlenet (ms)	17.96
NCNN - Vulkan GPU - vgg16 (ms)	29.39
NCNN - Vulkan GPU - resnet18 (ms)	15.78
NCNN - Vulkan GPU - alexnet (ms)	6.99
NCNN - Vulkan GPU - resnet50 (ms)	39.32
NCNN - Vulkan GPU - yolov4-tiny (ms)	36.17
NCNN - Vulkan GPU - squeezenet_ssd (ms)	21.17
NCNN - Vulkan GPU - regnety_400m (ms)	43.31
NCNN - Vulkan GPU - vision_transformer (ms)	63.59
NCNN - Vulkan GPU - FastestDet (ms)	16.45
TNN - CPU - DenseNet (ms)	2680
TNN - CPU - MobileNet v2 (ms)	265.102
TNN - CPU - SqueezeNet v2 (ms)	60.552
TNN - CPU - SqueezeNet v1.1 (ms)	251.03
Blender - BMW27 - CPU-Only (sec)	42.79
Blender - Junkshop - CPU-Only (sec)	62.38
Blender - Classroom - CPU-Only (sec)	126.75
Blender - Fishy Cat - CPU-Only (sec)	60.52
Blender - Barbershop - CPU-Only (sec)	469.59
Blender - Pabellon Barcelona - CPU-Only (sec)	142.48
ctx_clock - C.S.T (Clocks)	455
PETSc - Streams (MB/s)	252333
Apache Cassandra - Writes (Op/s)	190559
Apache Cassandra - Mixed 1:1 (Op/s)	113160
Apache Cassandra - Mixed 1:3 (Op/s)	125408
RocksDB - Overwrite (Op/s)	277950
RocksDB - Rand Fill (Op/s)	277905
RocksDB - Rand Read (Op/s)	164347618

RocksDB - Update Rand (Op/s)	436789
RocksDB - Seq Fill (Op/s)	284788
RocksDB - Rand Fill Sync (Op/s)	134909
RocksDB - Read While Writing (Op/s)	5344891
RocksDB - R.R.W.R (Op/s)	2504599
PyBench - T.F.A.T.T (Milliseconds)	896
nginx - 100 (Reqs/sec)	128250
nginx - 200 (Reqs/sec)	150807
nginx - 500 (Reqs/sec)	148485
nginx - 1000 (Reqs/sec)	148206
NeatBench - All (FPS)	34.3
NeatBench - CPU (FPS)	35.6
Natron - Spaceship (FPS)	6
Apache HTTP Server - 100 (Reqs/sec)	64087
Apache HTTP Server - 200 (Reqs/sec)	111302
Apache HTTP Server - 500 (Reqs/sec)	116328
Apache HTTP Server - 1000 (Reqs/sec)	118088
Appleseed - Emily (sec)	152.764496
Appleseed - Disney Material (sec)	72.217715
Appleseed - Material Tester (sec)	329.427775
PHPBench - P.B.S (Score)	750946
WavPack Audio Encoding - WAV To WavPack (sec)	5.064
Git - T.T.C.C.G.C (sec)	47.397
GnuPG - 2.7.S.F.E (sec)	49.031
PHP Micro Benchmarks - Zend bench (sec)	0.292
PHP Micro Benchmarks - Zend micro_bench (sec)	1.473
Tesseract OCR - T.T.O.7.I (sec)	28.47
Kripke (Throughput FoM)	373868100
BRL-CAD - V.P.M (VGR Performance Metric)	407965
Schbench - 1 (usec, 50.0th Latency Percentile)	37
Schbench - 1 (usec, 75.0th Latency Percentile)	49
Schbench - 1 (usec, 90.0th Latency Percentile)	57
Schbench - 1 (usec, 99.9th Latency Percentile)	1462
Schbench - 2 (usec, 50.0th Latency Percentile)	33
Schbench - 2 (usec, 75.0th Latency Percentile)	45
Schbench - 2 (usec, 90.0th Latency Percentile)	53
Schbench - 2 (usec, 99.9th Latency Percentile)	78
Schbench - 4 (usec, 50.0th Latency Percentile)	34
Schbench - 4 (usec, 75.0th Latency Percentile)	46
Schbench - 4 (usec, 90.0th Latency Percentile)	54
Schbench - 4 (usec, 99.9th Latency Percentile)	1470
Schbench - 8 (usec, 50.0th Latency Percentile)	43
Schbench - 8 (usec, 75.0th Latency Percentile)	60
Schbench - 8 (usec, 90.0th Latency Percentile)	87
Schbench - 8 (usec, 99.9th Latency Percentile)	15280
Schbench - 16 (usec, 50.0th Latency Percentile)	54
Schbench - 16 (usec, 75.0th Latency Percentile)	5416
Schbench - 16 (usec, 90.0th Latency Percentile)	12208

Schbench - 16 (usec, 99.9th Latency Percentile)	51648
Schbench - 32 (usec, 50.0th Latency Percentile)	4152
Schbench - 32 (usec, 75.0th Latency Percentile)	11376
Schbench - 32 (usec, 90.0th Latency Percentile)	21984
Schbench - 32 (usec, 99.9th Latency Percentile)	119680
Schbench - 64 (usec, 50.0th Latency Percentile)	10000
Schbench - 64 (usec, 75.0th Latency Percentile)	21664
Schbench - 64 (usec, 90.0th Latency Percentile)	44224
Schbench - 64 (usec, 99.9th Latency Percentile)	237312
Schbench - 128 (usec, 50.0th Latency Percentile)	16016
Schbench - 128 (usec, 75.0th Latency Percentile)	36032
Schbench - 128 (usec, 90.0th Latency Percentile)	70016
Schbench - 128 (usec, 99.9th Latency Percentile)	416256
Schbench - 256 (usec, 50.0th Latency Percentile)	23968
Schbench - 256 (usec, 75.0th Latency Percentile)	51008
Schbench - 256 (usec, 90.0th Latency Percentile)	102016
Schbench - 256 (usec, 99.9th Latency Percentile)	818176
InfluxDB - 4 - 10000 - 2,5000,1 - 10000 (val/sec)	1163261
InfluxDB - 64 - 10000 - 2,5000,1 - 10000 (val/sec)	1678591
InfluxDB - 1024 - 10000 - 2,5000,1 - 10000 (val/sec)	1698719

LevelDB 1.23
Benchmark: Hot Read

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Fill Sync

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Fill Sync

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Overwrite

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Overwrite

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Random Fill

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Random Fill

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Random Read

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Seek Random

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Random Delete

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Sequential Fill

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

LevelDB 1.23
Benchmark: Sequential Fill

1. (CXX) g++ options: -fno-exceptions -fno-rtti -O3 -lgmock -lgtest -lsnappy -ltcmalloc

SQLite 3.41.2
Threads / Copies: 1

1. (CC) gcc options: -O2 -lreadline -ltermcap -lz -lm

SQLite 3.41.2
Threads / Copies: 2

1. (CC) gcc options: -O2 -lreadline -ltermcap -lz -lm

SQLite 3.41.2
Threads / Copies: 4

1. (CC) gcc options: -O2 -lreadline -ltermcap -lz -lm

SQLite 3.41.2
Threads / Copies: 8

1. (CC) gcc options: -O2 -lreadline -ltermcap -lz -lm

SQLite 3.41.2
Threads / Copies: 16

1. (CC) gcc options: -O2 -lreadline -ltermcap -lz -lm

SQLite 3.41.2
Threads / Copies: 32

1. (CC) gcc options: -O2 -lreadline -ltermcap -lz -lm

SQLite 3.41.2
Threads / Copies: 64

1. (CC) gcc options: -O2 -lreadline -ltermcap -lz -lm

FS-Mark 3.3
Test: 1000 Files, 1MB Size

FS-Mark 3.3

Test: 5000 Files, 1MB Size, 4 Threads

FS-Mark 3.3

Test: 4000 Files, 32 Sub Dirs, 1MB Size

FS-Mark 3.3

Test: 1000 Files, 1MB Size, No Sync/FSync

BlogBench 1.1

Test: Read

1. (CC) gcc options: -O2

BlogBench 1.1

Test: Write

1. (CC) gcc options: -O2

Dbench 4.0
Client Count: 1

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

Dbench 4.0
Client Count: 6

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

Dbench 4.0
Client Count: 12

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

Dbench 4.0
Client Count: 48

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

Dbench 4.0
Client Count: 128

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

Dbench 4.0
Client Count: 256

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

IOR 3.3.0
Block Size: 2MB - Disk Target: /

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

IOR 3.3.0
Block Size: 4MB - Disk Target: /

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

IOR 3.3.0
Block Size: 8MB - Disk Target: /

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

IOR 3.3.0
Block Size: 16MB - Disk Target: /

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

IOR 3.3.0
Block Size: 32MB - Disk Target: /

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

IOR 3.3.0
Block Size: 64MB - Disk Target: /

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

IOR 3.3.0
Block Size: 256MB - Disk Target: /

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

IOR 3.3.0
Block Size: 512MB - Disk Target: /

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

IOR 3.3.0
Block Size: 1024MB - Disk Target: /

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

IOR 3.3.0
Block Size: 2MB - Disk Target: /home

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

IOR 3.3.0
Block Size: 4MB - Disk Target: /home

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

IOR 3.3.0
Block Size: 8MB - Disk Target: /home

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

IOR 3.3.0
Block Size: 16MB - Disk Target: /home

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

IOR 3.3.0
Block Size: 32MB - Disk Target: /home

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

IOR 3.3.0
Block Size: 64MB - Disk Target: /home

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

IOR 3.3.0
Block Size: 256MB - Disk Target: /home

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

IOR 3.3.0
Block Size: 512MB - Disk Target: /home

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

IOR 3.3.0
Block Size: 1024MB - Disk Target: /home

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

IOR 3.3.0
Block Size: 2MB - Disk Target: Default Test Directory

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

IOR 3.3.0

Block Size: 4MB - Disk Target: Default Test Directory

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

IOR 3.3.0

Block Size: 8MB - Disk Target: Default Test Directory

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

IOR 3.3.0

Block Size: 16MB - Disk Target: Default Test Directory

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

IOR 3.3.0

Block Size: 32MB - Disk Target: Default Test Directory

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

IOR 3.3.0

Block Size: 64MB - Disk Target: Default Test Directory

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

IOR 3.3.0
Block Size: 256MB - Disk Target: Default Test Directory

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

IOR 3.3.0
Block Size: 512MB - Disk Target: Default Test Directory

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

IOR 3.3.0
Block Size: 1024MB - Disk Target: Default Test Directory

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

RAMspeed SMP 3.5.0
Type: Add - Benchmark: Integer

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

RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Integer

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

RAMspeed SMP 3.5.0
Type: Scale - Benchmark: Integer

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

RAMspeed SMP 3.5.0
Type: Triad - Benchmark: Integer

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

RAMspeed SMP 3.5.0
Type: Average - Benchmark: Integer

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

RAMspeed SMP 3.5.0
Type: Add - Benchmark: Floating Point

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

RAMspeed SMP 3.5.0
Type: Copy - Benchmark: Floating Point

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

RAMspeed SMP 3.5.0

Type: Scale - Benchmark: Floating Point

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

RAMspeed SMP 3.5.0

Type: Triad - Benchmark: Floating Point

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

RAMspeed SMP 3.5.0

Type: Average - Benchmark: Floating Point

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

Stream 2013-01-17

Type: Copy

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

Stream 2013-01-17

Type: Scale

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

Stream 2013-01-17
Type: Triad

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

Stream 2013-01-17
Type: Add

1. (CC) gcc options: -mcmodel=medium -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: 128 MiB

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

MBW 2018-09-08

Test: Memory Copy - Array Size: 512 MiB

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

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 - Array Size: 4096 MiB

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

MBW 2018-09-08

Test: Memory Copy - Array Size: 8192 MiB

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

MBW 2018-09-08

Test: Memory Copy, Fixed Block Size - Array Size: 128 MiB

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

MBW 2018-09-08

Test: Memory Copy, Fixed Block Size - Array Size: 512 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

MBW 2018-09-08

Test: Memory Copy, Fixed Block Size - Array Size: 4096 MiB

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

MBW 2018-09-08

Test: Memory Copy, Fixed Block Size - Array Size: 8192 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

pmbench

Concurrent Worker Threads: 1 - Read-Write Ratio: 50%

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench

Concurrent Worker Threads: 2 - Read-Write Ratio: 50%

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench

Concurrent Worker Threads: 4 - Read-Write Ratio: 50%

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench

Concurrent Worker Threads: 8 - Read-Write Ratio: 50%

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 16 - Read-Write Ratio: 50%

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 32 - Read-Write Ratio: 50%

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 64 - Read-Write Ratio: 50%

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 1 - Read-Write Ratio: 100% Reads

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 2 - Read-Write Ratio: 100% Reads

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 4 - Read-Write Ratio: 100% Reads

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 8 - Read-Write Ratio: 100% Reads

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 1 - Read-Write Ratio: 100% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 16 - Read-Write Ratio: 100% Reads

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 2 - Read-Write Ratio: 100% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 32 - Read-Write Ratio: 100% Reads

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 4 - Read-Write Ratio: 100% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 64 - Read-Write Ratio: 100% Reads

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 8 - Read-Write Ratio: 100% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 16 - Read-Write Ratio: 100% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 32 - Read-Write Ratio: 100% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 64 - Read-Write Ratio: 100% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 1 - Read-Write Ratio: 80% Reads 20% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 2 - Read-Write Ratio: 80% Reads 20% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench
Concurrent Worker Threads: 4 - Read-Write Ratio: 80% Reads 20% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench

Concurrent Worker Threads: 8 - Read-Write Ratio: 80% Reads 20% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench

Concurrent Worker Threads: 16 - Read-Write Ratio: 80% Reads 20% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench

Concurrent Worker Threads: 32 - Read-Write Ratio: 80% Reads 20% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

pmbench

Concurrent Worker Threads: 64 - Read-Write Ratio: 80% Reads 20% Writes

1. (CC) gcc options: -lm -luuid -lxml2 -m64 -pthread

WireGuard + Linux Networking Stack Stress Test

perf-bench 6.9
Benchmark: Epoll Wait

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

perf-bench 6.9
Benchmark: Futex Hash

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

perf-bench 6.9
Benchmark: Memcpy 1MB

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

perf-bench 6.9
Benchmark: Memset 1MB

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

perf-bench 6.9
Benchmark: Sched Pipe

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

perf-bench 6.9
Benchmark: Futex Lock-Pi

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

perf-bench 6.9
Benchmark: Syscall Basic

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

OSBench
Test: Create Files

1. (CC) gcc options: -lm

OSBench
Test: Create Threads

1. (CC) gcc options: -lm

OSBench
Test: Launch Programs

1. (CC) gcc options: -lm

OSBench
Test: Create Processes

1. (CC) gcc options: -lm

OSBench
Test: Memory Allocations

1. (CC) gcc options: -lm

C-Blosc 2.11
Test: blosclz shuffle - Buffer Size: 8MB

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

C-Blosc 2.11
Test: blosclz shuffle - Buffer Size: 16MB

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

C-Blosc 2.11
Test: blosclz shuffle - Buffer Size: 32MB

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

C-Blosc 2.11

Test: blosclz shuffle - Buffer Size: 64MB

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

C-Blosc 2.11

Test: blosclz noshuffle - Buffer Size: 8MB

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

C-Blosc 2.11

Test: blosclz shuffle - Buffer Size: 128MB

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

C-Blosc 2.11

Test: blosclz shuffle - Buffer Size: 256MB

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

C-Blosc 2.11

Test: blosclz bitshuffle - Buffer Size: 8MB

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

C-Blosc 2.11

Test: blosclz noshuffle - Buffer Size: 16MB

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

C-Blosc 2.11

Test: blosclz noshuffle - Buffer Size: 32MB

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

C-Blosc 2.11

Test: blosclz noshuffle - Buffer Size: 64MB

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

C-Blosc 2.11

Test: blosclz bitshuffle - Buffer Size: 16MB

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

C-Blosc 2.11

Test: blosclz bitshuffle - Buffer Size: 32MB

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

C-Blosc 2.11

Test: blosclz bitshuffle - Buffer Size: 64MB

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

C-Blosc 2.11

Test: blosclz noshuffle - Buffer Size: 128MB

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

C-Blosc 2.11

Test: blosclz noshuffle - Buffer Size: 256MB

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

C-Blosc 2.11

Test: blosclz bitshuffle - Buffer Size: 128MB

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

C-Blosc 2.11

Test: blosclz bitshuffle - Buffer Size: 256MB

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

IPC_benchmark
Type: TCP Socket - Message Bytes: 128

IPC_benchmark
Type: TCP Socket - Message Bytes: 256

IPC_benchmark
Type: TCP Socket - Message Bytes: 512

IPC_benchmark
Type: TCP Socket - Message Bytes: 1024

IPC_benchmark
Type: TCP Socket - Message Bytes: 2048

IPC_benchmark
Type: TCP Socket - Message Bytes: 4096

IPC_benchmark
Type: Unnamed Pipe - Message Bytes: 128

IPC_benchmark
Type: Unnamed Pipe - Message Bytes: 256

IPC_benchmark
Type: Unnamed Pipe - Message Bytes: 512

IPC_benchmark
Type: Unnamed Pipe - Message Bytes: 1024

IPC_benchmark
Type: Unnamed Pipe - Message Bytes: 2048

IPC_benchmark
Type: Unnamed Pipe - Message Bytes: 4096

IPC_benchmark
Type: FIFO Named Pipe - Message Bytes: 128

IPC_benchmark
Type: FIFO Named Pipe - Message Bytes: 256

IPC_benchmark
Type: FIFO Named Pipe - Message Bytes: 512

IPC_benchmark
Type: FIFO Named Pipe - Message Bytes: 1024

IPC_benchmark
Type: FIFO Named Pipe - Message Bytes: 2048

IPC_benchmark
Type: FIFO Named Pipe - Message Bytes: 4096

IPC_benchmark
Type: Unnamed Unix Domain Socket - Message Bytes: 128

IPC_benchmark
Type: Unnamed Unix Domain Socket - Message Bytes: 256

IPC_benchmark
Type: Unnamed Unix Domain Socket - Message Bytes: 512

IPC_benchmark
Type: Unnamed Unix Domain Socket - Message Bytes: 1024

IPC_benchmark
Type: Unnamed Unix Domain Socket - Message Bytes: 2048

IPC_benchmark
Type: Unnamed Unix Domain Socket - Message Bytes: 4096

Crypto++ 8.8
Test: All Algorithms

1. (CXX) g++ options: -g2 -O3 -fPIC -pthread -pipe

Crypto++ 8.8
Test: Keyed Algorithms

1. (CXX) g++ options: -g2 -O3 -fPIC -pthread -pipe

Crypto++ 8.8
Test: Unkeyed Algorithms

1. (CXX) g++ options: -g2 -O3 -fPIC -pthread -pipe

Etcpak 1.0
Benchmark: Multi-Threaded - Configuration: DXT1

1. (CXX) g++ options: -O3 -march=native -std=c++11 -lpthread

Etcpak 1.0
Benchmark: Multi-Threaded - Configuration: ETC2

1. (CXX) g++ options: -O3 -march=native -std=c++11 -lpthread

Etcpak 1.0
Benchmark: Single-Threaded - Configuration: DXT1

1. (CXX) g++ options: -O3 -march=native -std=c++11 -lpthread

Etcpak 1.0
Benchmark: Single-Threaded - Configuration: ETC2

1. (CXX) g++ options: -O3 -march=native -std=c++11 -lpthread

High Performance Conjugate Gradient 3.1
X Y Z: 104 104 104 - RT: 60

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

High Performance Conjugate Gradient 3.1
X Y Z: 144 144 144 - RT: 60

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

High Performance Conjugate Gradient 3.1
X Y Z: 160 160 160 - RT: 60

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

High Performance Conjugate Gradient 3.1
X Y Z: 192 192 192 - RT: 60

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

High Performance Conjugate Gradient 3.1
X Y Z: 104 104 104 - RT: 1800

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

High Performance Conjugate Gradient 3.1
X Y Z: 144 144 144 - RT: 1800

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

High Performance Conjugate Gradient 3.1
X Y Z: 160 160 160 - RT: 1800

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

High Performance Conjugate Gradient 3.1
X Y Z: 192 192 192 - RT: 1800

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

NAS Parallel Benchmarks 3.4
Test / Class: BT.C

1. (F9X) gfortran options: -O3 -march=native -lmpi_usempif08 -lmpi_mpifh -lmpi

NAS Parallel Benchmarks 3.4
Test / Class: CG.C

1. (F9X) gfortran options: -O3 -march=native -lmpi_usempif08 -lmpi_mpifh -lmpi

NAS Parallel Benchmarks 3.4
Test / Class: EP.C

1. (F9X) gfortran options: -O3 -march=native -lmpi_usempif08 -lmpi_mpifh -lmpi

NAS Parallel Benchmarks 3.4
Test / Class: EP.D

1. (F9X) gfortran options: -O3 -march=native -lmpi_usempif08 -lmpi_mpifh -lmpi

NAS Parallel Benchmarks 3.4
Test / Class: FT.C

1. (F9X) gfortran options: -O3 -march=native -lmpi_usempif08 -lmpi_mpifh -lmpi

NAS Parallel Benchmarks 3.4
Test / Class: IS.D

1. (F9X) gfortran options: -O3 -march=native -lmpi_usempif08 -lmpi_mpifh -lmpi

NAS Parallel Benchmarks 3.4
Test / Class: LU.C

1. (F9X) gfortran options: -O3 -march=native -lmpi_usempif08 -lmpi_mpifh -lmpi

NAS Parallel Benchmarks 3.4
Test / Class: MG.C

1. (F9X) gfortran options: -O3 -march=native -lmpi_usempif08 -lmpi_mpifh -lmpi

NAS Parallel Benchmarks 3.4
Test / Class: SP.B

1. (F9X) gfortran options: -O3 -march=native -lmpi_usempif08 -lmpi_mpifh -lmpi

NAS Parallel Benchmarks 3.4
Test / Class: SP.C

1. (F9X) gfortran options: -O3 -march=native -lmpi_usempif08 -lmpi_mpifh -lmpi

Quicksilver 20230818
Input: CTS2

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

Quicksilver 20230818
Input: CORAL2 P1

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

Quicksilver 20230818
Input: CORAL2 P2

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

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

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

CloverLeaf 1.3

Input: clover_bm

1. (F9X) gfortran options: -O3 -march=native -funroll-loops -fopenmp

CloverLeaf 1.3

Input: clover_bm16

1. (F9X) gfortran options: -O3 -march=native -funroll-loops -fopenmp

CloverLeaf 1.3

Input: clover_bm64_short

1. (F9X) gfortran options: -O3 -march=native -funroll-loops -fopenmp

NAMD 3.0b6

Input: ATPase with 327,506 Atoms

NAMD 3.0b6

Input: STMV with 1,066,628 Atoms

Dolfyn 0.527

Computational Fluid Dynamics

lzbench 1.8

Test: XZ 0 - Process: Compression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: XZ 0 - Process: Decompression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Zstd 1 - Process: Compression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Zstd 1 - Process: Decompression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Zstd 8 - Process: Compression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Zstd 8 - Process: Decompression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Crush 0 - Process: Compression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Crush 0 - Process: Decompression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Brotli 0 - Process: Compression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Brotli 0 - Process: Decompression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Brotli 2 - Process: Compression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Brotli 2 - Process: Decompression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Libdeflate 1 - Process: Compression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

lzbench 1.8

Test: Libdeflate 1 - Process: Decompression

1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

SMHasher 2022-08-22

Hash: wyhash

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

SMHasher 2022-08-22

Hash: wyhash

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

SMHasher 2022-08-22

Hash: SHA3-256

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

SMHasher 2022-08-22
Hash: SHA3-256

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

SMHasher 2022-08-22
Hash: Spooky32

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

SMHasher 2022-08-22
Hash: Spooky32

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

SMHasher 2022-08-22
Hash: fasthash32

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

SMHasher 2022-08-22
Hash: fasthash32

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

SMHasher 2022-08-22
Hash: FarmHash128

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

SMHasher 2022-08-22
Hash: FarmHash128

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

SMHasher 2022-08-22
Hash: t1ha2_atonce

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

SMHasher 2022-08-22
Hash: t1ha2_atonce

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

SMHasher 2022-08-22
Hash: FarmHash32 x86_64 AVX

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

SMHasher 2022-08-22
Hash: FarmHash32 x86_64 AVX

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

SMHasher 2022-08-22
Hash: t1ha0_aes_avx2 x86_64

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

SMHasher 2022-08-22
Hash: t1ha0_aes_avx2 x86_64

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

SMHasher 2022-08-22
Hash: MeowHash x86_64 AES-NI

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

SMHasher 2022-08-22
Hash: MeowHash x86_64 AES-NI

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

Algebraic Multi-Grid Benchmark 1.2

1. (CC) gcc options: -lparcsr_ls -lparcsr_mv -lseq_mv -lIJ_mv -lkrylov -lHYPRE_utilities -lm -fopenmp -lmpi

libxsmm 2-1.17-3645

M N K: 128

1. (CXX) g++ options: -dynamic -Bstatic -static-libgcc -lgomp -lm -lrt -ldl -lquadmath -lstdc++ -pthread -fPIC -std=c++14 -O2 -fopenmp-simd -funroll-loops -ftree-vec

libxsmm 2-1.17-3645

M N K: 256

1. (CXX) g++ options: -dynamic -Bstatic -static-libgcc -lgomp -lm -lrt -ldl -lquadmath -lstdc++ -pthread -fPIC -std=c++14 -O2 -fopenmp-simd -funroll-loops -ftree-vec

libxsmm 2-1.17-3645

M N K: 32

1. (CXX) g++ options: -dynamic -Bstatic -static-libgcc -lgomp -lm -lrt -ldl -lquadmath -lstdc++ -pthread -fPIC -std=c++14 -O2 -fopenmp-simd -funroll-loops -ftree-vec

libxsmm 2-1.17-3645

M N K: 64

1. (CXX) g++ options: -dynamic -Bstatic -static-libgcc -lgomp -lm -lrt -ldl -lquadmath -lstdc++ -pthread -fPIC -std=c++14 -O2 -fopenmp-simd -funroll-loops -ftree-vec

FFTE 7.0

N=256, 3D Complex FFT Routine

1. (F9X) gfortran options: -O3 -fomit-frame-pointer -fopenmp

Laghos 3.1

Test: Triple Point Problem

1. (CXX) g++ options: -O3 -std=c++11 -lmfem -lHYPRE -lmetis -lrt -lmpi_cxx -lmpi

Laghos 3.1

Test: Sedov Blast Wave, ube_922_hex.mesh

1. (CXX) g++ options: -O3 -std=c++11 -lmfem -lHYPRE -lmetis -lrt -lmpi_cxx -lmpi

FFTW 3.3.6

Build: Stock - Size: 1D FFT Size 32

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Stock - Size: 1D FFT Size 64

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Stock - Size: 2D FFT Size 32

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Stock - Size: 2D FFT Size 64

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Stock - Size: 1D FFT Size 128

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6
Build: Stock - Size: 1D FFT Size 256

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6
Build: Stock - Size: 1D FFT Size 512

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6
Build: Stock - Size: 2D FFT Size 128

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6
Build: Stock - Size: 2D FFT Size 256

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6
Build: Stock - Size: 2D FFT Size 512

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6
Build: Stock - Size: 1D FFT Size 1024

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6
Build: Stock - Size: 1D FFT Size 2048

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6
Build: Stock - Size: 1D FFT Size 4096

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Stock - Size: 2D FFT Size 1024

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Stock - Size: 2D FFT Size 2048

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Stock - Size: 2D FFT Size 4096

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 1D FFT Size 32

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 1D FFT Size 64

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 2D FFT Size 32

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 2D FFT Size 64

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 1D FFT Size 128

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 1D FFT Size 256

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 1D FFT Size 512

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 2D FFT Size 128

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 2D FFT Size 256

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 2D FFT Size 512

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 1D FFT Size 1024

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 1D FFT Size 2048

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 1D FFT Size 4096

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 2D FFT Size 1024

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 2D FFT Size 2048

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

FFTW 3.3.6

Build: Float + SSE - Size: 2D FFT Size 4096

1. (CC) gcc options: -O3 -fomit-frame-pointer -mtune=native -malign-double -fstrict-aliasing -fno-schedule-insns -ffast-math -lm

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: float - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: float - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: float - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: float - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: float - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: float - X Y Z: 512

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

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Test: c2c - Backend: FFTW - Precision: double - X Y Z: 128

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

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Test: c2c - Backend: FFTW - Precision: double - X Y Z: 256

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

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Test: c2c - Backend: FFTW - Precision: double - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: float - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: float - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: float - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: float - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: double - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: double - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: double - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: float - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: float - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: float - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: float - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: double - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: double - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: double - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: double - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: float - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: double - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: double - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: double - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: double - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: float - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: double - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: double - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: float-long - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: float-long - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: float-long - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: float-long - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: float-long - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: float-long - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: double-long - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: double-long - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: double-long - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: float-long - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: float-long - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: float-long - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: float-long - X Y Z: 512

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HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: double-long - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: double-long - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: double-long - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: float-long - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: float-long - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: float-long - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: float-long - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: FFTW - Precision: double-long - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: double-long - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: double-long - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: double-long - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: float-long - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: FFTW - Precision: double-long - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: double-long - X Y Z: 128

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: double-long - X Y Z: 256

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: double-long - X Y Z: 512

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: float-long - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: c2c - Backend: Stock - Precision: double-long - X Y Z: 1024

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

HeFFTe - Highly Efficient FFT for Exascale 2.4

Test: r2c - Backend: Stock - Precision: double-long - X Y Z: 1024

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

Pennant 1.0.1

Test: sedovbig

1. (CXX) g++ options: -fopenmp -lmpi_cxx -lmpi

Pennant 1.0.1

Test: leblancbig

1. (CXX) g++ options: -fopenmp -lmpi_cxx -lmpi

Timed MrBayes Analysis 3.2.7

Primate Phylogeny Analysis

1. (CC) gcc options: -mmmx -msse -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -msse4a -msha -maes -mavx -mfma -mavx2 -mrdmd -mbmi -mbmi2 -madx -mabm -O3

QMCPACK 3.17.1

Input: H4_ae

1. (CXX) g++ options: -fopenmp -foffload=disable -finline-limit=1000 -fstrict-aliasing -funroll-all-loops -ffast-math -march=native -O3 -lm -ldl

QMCPACK 3.17.1

Input: Li2_STO_ae

1. (CXX) g++ options: -fopenmp -foffload=disable -finline-limit=1000 -fstrict-aliasing -funroll-all-loops -ffast-math -march=native -O3 -lm -ldl

QMCPACK 3.17.1

Input: LiH_ae_MSD

1. (CXX) g++ options: -fopenmp -foffload=disable -finline-limit=1000 -fstrict-aliasing -funroll-all-loops -ffast-math -march=native -O3 -lm -ldl

QMCPACK 3.17.1
Input: simple-H2O

1. (CXX) g++ options: -fopenmp -foffload=disable -finline-limit=1000 -fstrict-aliasing -funroll-all-loops -ffast-math -march=native -O3 -lm -ldl

QMCPACK 3.17.1
Input: O_ae_pyscf_UHF

1. (CXX) g++ options: -fopenmp -foffload=disable -finline-limit=1000 -fstrict-aliasing -funroll-all-loops -ffast-math -march=native -O3 -lm -ldl

QMCPACK 3.17.1
Input: FeCO6_b3lyp_gms

1. (CXX) g++ options: -fopenmp -foffload=disable -finline-limit=1000 -fstrict-aliasing -funroll-all-loops -ffast-math -march=native -O3 -lm -ldl

Timed HMMer Search 3.3.2
Pfam Database Search

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

Timed MAFFT Alignment 7.471

Multiple Sequence Alignment - LSU RNA

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

Monte Carlo Simulations of Ionised Nebulae 2.02.73.3

Input: Gas HII40

1. (F9X) gfortran options: -cpp -Jsource/ -ffree-line-length-0 -lm -std=legacy -O2 -lmpi_usempif08 -lmpi_mpifh -lmpi

Monte Carlo Simulations of Ionised Nebulae 2.02.73.3

Input: Dust 2D tau100.0

1. (F9X) gfortran options: -cpp -Jsource/ -ffree-line-length-0 -lm -std=legacy -O2 -lmpi_usempif08 -lmpi_mpifh -lmpi

Quantum ESPRESSO 7.0

Input: AUSURF112

1. (F9X) gfortran options: -pthread -fopenmp -ldevXlib -lopenblas -lFoX_dom -lFoX_sax -lFoX_wxml -lFoX_common -lFoX_utils -lFoX_fsys -lfftw3_omp -lfftw3 -lmpi_use

Remhos 1.0

Test: Sample Remap Example

1. (CXX) g++ options: -O3 -std=c++11 -lmfem -lHYPRE -lmetis -lrt -lmpi_cxx -lmpi

nekRS 23.0
Input: Kershaw

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

nekRS 23.0
Input: TurboPipe Periodic

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

LAMMPS Molecular Dynamics Simulator 23Jun2022
Model: 20k Atoms

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

LAMMPS Molecular Dynamics Simulator 23Jun2022
Model: Rhodopsin Protein

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

LULESH 2.0.3

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

BLAKE2 20170307

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

FFmpeg 7.0
Encoder: libx264 - Scenario: Live

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

FFmpeg 7.0
Encoder: libx265 - Scenario: Live

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

FFmpeg 7.0
Encoder: libx264 - Scenario: Upload

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

FFmpeg 7.0
Encoder: libx265 - Scenario: Upload

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

FFmpeg 7.0
Encoder: libx264 - Scenario: Platform

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

FFmpeg 7.0
Encoder: libx265 - Scenario: Platform

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

FFmpeg 7.0
Encoder: libx264 - Scenario: Video On Demand

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

FFmpeg 7.0
Encoder: libx265 - Scenario: Video On Demand

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

libgav1 0.17
Video Input: Chimera 1080p

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

libgav1 0.17
Video Input: Summer Nature 4K

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

libgav1 0.17
Video Input: Summer Nature 1080p

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

libgav1 0.17
Video Input: Chimera 1080p 10-bit

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

Bork File Encrypter 1.4
File Encryption Time

DaCapo Benchmark 23.11
Java Test: Jython

DaCapo Benchmark 23.11
Java Test: Eclipse

DaCapo Benchmark 23.11
Java Test: GraphChi

DaCapo Benchmark 23.11
Java Test: Tradesoap

DaCapo Benchmark 23.11
Java Test: Tradebeans

DaCapo Benchmark 23.11
Java Test: Spring Boot

DaCapo Benchmark 23.11
Java Test: Apache Kafka

DaCapo Benchmark 23.11
Java Test: Apache Tomcat

DaCapo Benchmark 23.11
Java Test: jMonkeyEngine

DaCapo Benchmark 23.11
Java Test: Apache Cassandra

DaCapo Benchmark 23.11
Java Test: Apache Xalan XSLT

DaCapo Benchmark 23.11
Java Test: Batik SVG Toolkit

DaCapo Benchmark 23.11
Java Test: H2 Database Engine

DaCapo Benchmark 23.11
Java Test: FOP Print Formatter

DaCapo Benchmark 23.11
Java Test: PMD Source Code Analyzer

DaCapo Benchmark 23.11
Java Test: Apache Lucene Search Index

DaCapo Benchmark 23.11
Java Test: Apache Lucene Search Engine

DaCapo Benchmark 23.11
Java Test: Avrora AVR Simulation Framework

DaCapo Benchmark 23.11
Java Test: BioJava Biological Data Framework

DaCapo Benchmark 23.11

Java Test: Zxing 1D/2D Barcode Image Processing

DaCapo Benchmark 23.11

Java Test: H2O In-Memory Platform For Machine Learning

Renaissance 0.14

Test: Scala Dotty

Renaissance 0.14

Test: Random Forest

Renaissance 0.14

Test: Apache Spark Bayes

Renaissance 0.14

Test: Savina Reactors.IO

Renaissance 0.14
Test: Apache Spark PageRank

Renaissance 0.14
Test: Finagle HTTP Requests

Renaissance 0.14
Test: In-Memory Database Shootout

Renaissance 0.14
Test: Akka Unbalanced Cobwebbed Tree

Renaissance 0.14
Test: Genetic Algorithm Using Jenetics + Futures

CacheBench
Test: Read

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

CacheBench
Test: Write

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

CacheBench
Test: Read / Modify / Write

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

LZ4 Compression 1.10
Compression Level: 1 - Compression Speed

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

LZ4 Compression 1.10
Compression Level: 1 - Decompression Speed

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

LZ4 Compression 1.10
Compression Level: 2 - Compression Speed

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

LZ4 Compression 1.10
Compression Level: 2 - Decompression Speed

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

LZ4 Compression 1.10
Compression Level: 3 - Compression Speed

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

LZ4 Compression 1.10
Compression Level: 3 - Decompression Speed

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

LZ4 Compression 1.10
Compression Level: 9 - Compression Speed

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

LZ4 Compression 1.10
Compression Level: 9 - Decompression Speed

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

LZ4 Compression 1.10

Compression Level: 12 - Compression Speed

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

LZ4 Compression 1.10

Compression Level: 12 - Decompression Speed

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

Zstd Compression 1.5.4

Compression Level: 3 - Compression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 8 - Compression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 8 - Decompression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 12 - Compression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 12 - Decompression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 19 - Compression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 19 - Decompression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 3, Long Mode - Compression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 3, Long Mode - Decompression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 8, Long Mode - Compression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 8, Long Mode - Decompression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 19, Long Mode - Compression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

Zstd Compression 1.5.4

Compression Level: 19, Long Mode - Decompression Speed

1. (CC) gcc options: -O3 -pthread -lz -llzma -llz4

JPEG-XL libjxl 0.10.1
Input: PNG - Quality: 80

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

JPEG-XL libjxl 0.10.1
Input: PNG - Quality: 90

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

JPEG-XL libjxl 0.10.1
Input: JPEG - Quality: 80

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

JPEG-XL libjxl 0.10.1
Input: JPEG - Quality: 90

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

JPEG-XL libjxl 0.10.1
Input: PNG - Quality: 100

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

JPEG-XL libjxl 0.10.1
Input: JPEG - Quality: 100

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

JPEG-XL Decoding libjxl 0.10.1
CPU Threads: 1

JPEG-XL Decoding libjxl 0.10.1
CPU Threads: All

WebP Image Encode 1.4
Encode Settings: Default

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

WebP Image Encode 1.4
Encode Settings: Quality 100

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

WebP Image Encode 1.4

Encode Settings: Quality 100, Lossless

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

WebP Image Encode 1.4

Encode Settings: Quality 100, Highest Compression

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

WebP Image Encode 1.4

Encode Settings: Quality 100, Lossless, Highest Compression

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

WebP2 Image Encode 20220823

Encode Settings: Default

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

WebP2 Image Encode 20220823

Encode Settings: Quality 75, Compression Effort 7

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

WebP2 Image Encode 20220823

Encode Settings: Quality 95, Compression Effort 7

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

WebP2 Image Encode 20220823

Encode Settings: Quality 100, Compression Effort 5

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

WebP2 Image Encode 20220823

Encode Settings: Quality 100, Lossless Compression

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

srsRAN Project 23.10.1-20240325

Test: PDSCH Processor Benchmark, Throughput Total

1. (CXX) g++ options: -O3 -march=native -mavx2 -mavx -msse4.1 -mfma -fno-trapping-math -fno-math-errno -ldl

srsRAN Project 23.10.1-20240325

Test: PUSCH Processor Benchmark, Throughput Total

1. (CXX) g++ options: -O3 -march=native -mavx2 -mavx -msse4.1 -mfma -fno-trapping-math -fno-math-errno -ldl

srsRAN Project 23.10.1-20240325

Test: PDSCH Processor Benchmark, Throughput Thread

1. (CXX) g++ options: -O3 -march=native -mavx2 -mavx -msse4.1 -mfma -fno-trapping-math -fno-math-errno -ldl

srsRAN Project 23.10.1-20240325

Test: PUSCH Processor Benchmark, Throughput Thread

1. (CXX) g++ options: -O3 -march=native -mavx2 -mavx -msse4.1 -mfma -fno-trapping-math -fno-math-errno -ldl

Nettle 3.8

Test: aes256

1. (CC) gcc options: -O2 -ggdb3 -lnettle -lgmp -lm -lcrypto

Nettle 3.8

Test: chacha

1. (CC) gcc options: -O2 -ggdb3 -lnettle -lgmp -lm -lcrypto

Nettle 3.8

Test: sha512

1. (CC) gcc options: -O2 -ggdb3 -lnettle -lgmp -lm -lcrypto

Nettle 3.8

Test: poly1305-aes

1. (CC) gcc options: -O2 -ggdb3 -lnettle -lgmp -lm -lcrypto

LuaJIT 2.1-git

Test: Composite

1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

LuaJIT 2.1-git

Test: Monte Carlo

1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

LuaJIT 2.1-git

Test: Fast Fourier Transform

1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

LuaJIT 2.1-git

Test: Sparse Matrix Multiply

1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

LuaJIT 2.1-git
Test: Dense LU Matrix Factorization

1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

LuaJIT 2.1-git
Test: Jacobi Successive Over-Relaxation

1. (CC) gcc options: -lm -ldl -O2 -fomit-frame-pointer -U_FORTIFY_SOURCE -fno-stack-protector

Botan 2.17.3
Test: KASUMI

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: KASUMI - Decrypt

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: AES-256

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: AES-256 - Decrypt

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: Twofish

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: Twofish - Decrypt

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: Blowfish

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: Blowfish - Decrypt

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: CAST-256

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: CAST-256 - Decrypt

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: ChaCha20Poly1305

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

Botan 2.17.3
Test: ChaCha20Poly1305 - Decrypt

1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

LuaRadio 0.9.1
Test: Five Back to Back FIR Filters

LuaRadio 0.9.1
Test: FM Deemphasis Filter

LuaRadio 0.9.1
Test: Hilbert Transform

LuaRadio 0.9.1
Test: Complex Phase

LibRaw 0.20
Post-Processing Benchmark

1. (CXX) g++ options: -O2 -fopenmp -ljpeg -lz -lm

Crafty 25.2
Elapsed Time

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

TSCP 1.81
AI Chess Performance

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

John The Ripper 2023.03.14
Test: bcrypt

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

John The Ripper 2023.03.14
Test: WPA PSK

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

John The Ripper 2023.03.14
Test: Blowfish

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

John The Ripper 2023.03.14
Test: HMAC-SHA512

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

John The Ripper 2023.03.14

Test: MD5

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

LuxCoreRender 2.6

Scene: DLSC - Acceleration: CPU

LuxCoreRender 2.6

Scene: Danish Mood - Acceleration: CPU

LuxCoreRender 2.6

Scene: Orange Juice - Acceleration: CPU

LuxCoreRender 2.6

Scene: LuxCore Benchmark - Acceleration: CPU

LuxCoreRender 2.6

Scene: Rainbow Colors and Prism - Acceleration: CPU

GraphicsMagick 1.3.43
Operation: Swirl

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

GraphicsMagick 1.3.43
Operation: Rotate

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

GraphicsMagick 1.3.43
Operation: Sharpen

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

GraphicsMagick 1.3.43
Operation: Enhanced

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

GraphicsMagick 1.3.43
Operation: Resizing

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

GraphicsMagick 1.3.43
Operation: Noise-Gaussian

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

GraphicsMagick 1.3.43
Operation: HWB Color Space

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

easyWave r34
Input: e2Asean Grid + BengkuluSept2007 Source - Time: 240

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

easyWave r34

Input: e2Asean Grid + BengkuluSept2007 Source - Time: 1200

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

easyWave r34

Input: e2Asean Grid + BengkuluSept2007 Source - Time: 2400

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

dav1d 1.4.2

Video Input: Chimera 1080p

1. (CC) gcc options: -pthread

dav1d 1.4.2

Video Input: Summer Nature 4K

1. (CC) gcc options: -pthread

dav1d 1.4.2

Video Input: Summer Nature 1080p

1. (CC) gcc options: -pthread

dav1d 1.4.2

Video Input: Chimera 1080p 10-bit

1. (CC) gcc options: -pthread

Kvazaar 2.2

Video Input: Bosphorus 4K - Video Preset: Slow

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

Kvazaar 2.2

Video Input: Bosphorus 4K - Video Preset: Medium

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

Kvazaar 2.2

Video Input: Bosphorus 1080p - Video Preset: Slow

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

Kvazaar 2.2

Video Input: Bosphorus 1080p - Video Preset: Medium

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

Kvazaar 2.2

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

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

Kvazaar 2.2

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

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

Kvazaar 2.2

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

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

Kvazaar 2.2

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

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

Kvazaar 2.2

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

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

Kvazaar 2.2

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

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

rav1e 0.7

Speed: 1

rav1e 0.7

Speed: 5

rav1e 0.7

Speed: 6

rav1e 0.7

Speed: 10

SVT-HEVC 1.5.0
Tuning: 1 - Input: Bosphorus 4K

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

SVT-HEVC 1.5.0
Tuning: 7 - Input: Bosphorus 4K

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

SVT-HEVC 1.5.0
Tuning: 10 - Input: Bosphorus 4K

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

SVT-HEVC 1.5.0
Tuning: 1 - Input: Bosphorus 1080p

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

SVT-HEVC 1.5.0
Tuning: 7 - Input: Bosphorus 1080p

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

SVT-HEVC 1.5.0

Tuning: 10 - Input: Bosphorus 1080p

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

SVT-VP9 0.3

Tuning: VMAF Optimized - Input: Bosphorus 4K

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

SVT-VP9 0.3

Tuning: VMAF Optimized - Input: Bosphorus 1080p

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

SVT-VP9 0.3

Tuning: PSNR/SSIM Optimized - Input: Bosphorus 4K

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

SVT-VP9 0.3

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

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

SVT-VP9 0.3

Tuning: Visual Quality Optimized - Input: Bosphorus 4K

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

SVT-VP9 0.3

Tuning: Visual Quality Optimized - Input: Bosphorus 1080p

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

uvg266 0.8.0

Video Input: Bosphorus 4K - Video Preset: Slow

uvg266 0.8.0

Video Input: Bosphorus 4K - Video Preset: Medium

uvg266 0.8.0

Video Input: Bosphorus 1080p - Video Preset: Slow

uvg266 0.8.0
Video Input: Bosphorus 1080p - Video Preset: Medium

uvg266 0.8.0
Video Input: Bosphorus 4K - Video Preset: Very Fast

uvg266 0.8.0
Video Input: Bosphorus 4K - Video Preset: Super Fast

uvg266 0.8.0
Video Input: Bosphorus 4K - Video Preset: Ultra Fast

uvg266 0.8.0
Video Input: Bosphorus 1080p - Video Preset: Very Fast

uvg266 0.8.0
Video Input: Bosphorus 1080p - Video Preset: Super Fast

uvg266 0.8.0

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

VP9 libvpx Encoding 1.13

Speed: Speed 0 - Input: Bosphorus 4K

1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=gnu++11

VP9 libvpx Encoding 1.13

Speed: Speed 5 - Input: Bosphorus 4K

1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=gnu++11

VP9 libvpx Encoding 1.13

Speed: Speed 0 - Input: Bosphorus 1080p

1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=gnu++11

VP9 libvpx Encoding 1.13

Speed: Speed 5 - Input: Bosphorus 1080p

1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=gnu++11

VVenC 1.11

Video Input: Bosphorus 4K - Video Preset: Fast

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

VVenC 1.11

Video Input: Bosphorus 4K - Video Preset: Faster

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

VVenC 1.11

Video Input: Bosphorus 1080p - Video Preset: Fast

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

VVenC 1.11

Video Input: Bosphorus 1080p - Video Preset: Faster

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

x264 2022-02-22

Video Input: Bosphorus 4K

1. (CC) gcc options: -ldl -m64 -lm -lpthread -O3 -flto

x264 2022-02-22
Video Input: Bosphorus 1080p

1. (CC) gcc options: -ldl -m64 -lm -lpthread -O3 -flto

x265 3.6
Video Input: Bosphorus 4K

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

x265 3.6
Video Input: Bosphorus 1080p

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

ACES DGEMM 1.0
Sustained Floating-Point Rate

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

Intel Open Image Denoise 2.3
Run: RT.hdr_alb_nrm.3840x2160 - Device: CPU-Only

Intel Open Image Denoise 2.3

Run: RT.ldr_alb_nrm.3840x2160 - Device: CPU-Only

Intel Open Image Denoise 2.3

Run: RTLightmap.hdr.4096x4096 - Device: CPU-Only

OpenVKL 2.0.0

Benchmark: vklBenchmarkCPU ISPC

OpenVKL 2.0.0

Benchmark: vklBenchmarkCPU Scalar

OSPRay 3.1

Benchmark: particle_volume/ao/real_time

OSPRay 3.1

Benchmark: particle_volume/scivis/real_time

OSPRay 3.1

Benchmark: particle_volume/pathtracer/real_time

OSPRay 3.1

Benchmark: gravity_spheres_volume/dim_512/ao/real_time

OSPRay 3.1

Benchmark: gravity_spheres_volume/dim_512/scivis/real_time

OSPRay 3.1

Benchmark: gravity_spheres_volume/dim_512/pathtracer/real_time

Himeno Benchmark 3.0

Poisson Pressure Solver

1. (CC) gcc options: -O3 -mavx2

7-Zip Compression 24.05
Test: Compression Rating

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

7-Zip Compression 24.05
Test: Decompression Rating

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

Stockfish 16.1
Chess Benchmark

1. (CXX) g++ options: -lgcov -m64 -lpthread -fno-exceptions -std=c++17 -fno-peel-loops -fno-tracer -pedantic -O3 -funroll-loops -msse -msse3 -mpopcnt -mavx2 -ml

asmFish 2018-07-23
1024 Hash Memory, 26 Depth

Stargate Digital Audio Workstation 22.11.5
Sample Rate: 44100 - Buffer Size: 512

1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

Stargate Digital Audio Workstation 22.11.5

Sample Rate: 96000 - Buffer Size: 512

1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

Stargate Digital Audio Workstation 22.11.5

Sample Rate: 192000 - Buffer Size: 512

1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

Stargate Digital Audio Workstation 22.11.5

Sample Rate: 44100 - Buffer Size: 1024

1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

Stargate Digital Audio Workstation 22.11.5

Sample Rate: 480000 - Buffer Size: 512

1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

Stargate Digital Audio Workstation 22.11.5

Sample Rate: 96000 - Buffer Size: 1024

1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

Stargate Digital Audio Workstation 22.11.5

Sample Rate: 192000 - Buffer Size: 1024

1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

Stargate Digital Audio Workstation 22.11.5

Sample Rate: 480000 - Buffer Size: 1024

1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

PJSIP 2.11

Method: INVITE

1. (CC) gcc options: -lSDL2 -lstdc++ -lopus -lssl -lcrypto -luuid -lm -lrt -lpthread -lasound -O2

PJSIP 2.11
Method: OPTIONS, Stateful

1. (CC) gcc options: -lSDL2 -lstdc++ -lopus -lssl -lcrypto -luuid -lm -lrt -lpthread -lasound -O2

PJSIP 2.11
Method: OPTIONS, Stateless

1. (CC) gcc options: -lSDL2 -lstdc++ -lopus -lssl -lcrypto -luuid -lm -lrt -lpthread -lasound -O2

Timed Apache Compilation 2.4.41
Time To Compile

Timed FFmpeg Compilation 7.0
Time To Compile

Timed GCC Compilation 13.2
Time To Compile

Timed GDB GNU Debugger Compilation 10.2

Time To Compile

Timed Gem5 Compilation 23.0.1

Time To Compile

Timed ImageMagick Compilation 6.9.0

Time To Compile

Timed Linux Kernel Compilation 6.8

Build: defconfig

Timed Linux Kernel Compilation 6.8

Build: allmodconfig

Timed LLVM Compilation 16.0

Build System: Ninja

Timed LLVM Compilation 16.0
Build System: Unix Makefiles

Timed MPlayer Compilation 1.5
Time To Compile

Timed Node.js Compilation 21.7.2
Time To Compile

Timed PHP Compilation 8.3.4
Time To Compile

Timed CPython Compilation 3.10.6
Build Configuration: Default

Timed CPython Compilation 3.10.6
Build Configuration: Released Build, PGO + LTO Optimized

Build2 0.15
Time To Compile

C-Ray 2.0
Resolution: 4K - Rays Per Pixel: 16

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

C-Ray 2.0
Resolution: 5K - Rays Per Pixel: 16

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

C-Ray 2.0
Resolution: 1080p - Rays Per Pixel: 16

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

Parallel BZIP2 Compression 1.1.13
FreeBSD-13.0-RELEASE-amd64-memstick.img Compression

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

POV-Ray 3.7.0.7
Trace Time

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

Smallpt 1.0
Global Illumination Renderer; 128 Samples

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

rays1bench 2020-01-09
Large Scene

oneDNN 3.4
Harness: IP Shapes 1D - Engine: CPU

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

oneDNN 3.4
Harness: IP Shapes 3D - Engine: CPU

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

oneDNN 3.4

Harness: Convolution Batch Shapes Auto - Engine: CPU

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

oneDNN 3.4

Harness: Deconvolution Batch shapes_1d - Engine: CPU

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

oneDNN 3.4

Harness: Deconvolution Batch shapes_3d - Engine: CPU

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

oneDNN 3.4

Harness: Recurrent Neural Network Training - Engine: CPU

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

oneDNN 3.4

Harness: Recurrent Neural Network Inference - Engine: CPU

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

AOBench

Size: 2048 x 2048 - Total Time

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

Timed Eigen Compilation 3.3.9

Time To Compile

Timed Erlang/OTP Compilation 25.0

Time To Compile

Timed Wasmer Compilation 2.3

Time To Compile

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

Gzip Compression

Linux Source Tree Archiving To .tar.gz

XZ Compression 5.2.4

Compressing ubuntu-16.04.3-server-i386.img, Compression Level 9

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

dcraw

RAW To PPM Image Conversion

1. (CC) gcc options: -lm

DeepSpeech 0.6

Acceleration: CPU

Monkey Audio Encoding 3.99.6

WAV To APE

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

FLAC Audio Encoding 1.4

WAV To FLAC

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

LAME MP3 Encoding 3.100

WAV To MP3

1. (CC) gcc options: -O3 -ffast-math -funroll-loops -fschedule-insns2 -fbranch-count-reg -fforce-addr -pipe -lncurses -lm

Opus Codec Encoding 1.4

WAV To Opus Encode

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

eSpeak-NG Speech Engine 1.51

Text-To-Speech Synthesis

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

Gcrypt Library 1.10.3

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

Hackbench

Count: 1 - Type: Thread

1. (CC) gcc options: -lpthread

Hackbench
Count: 2 - Type: Thread

1. (CC) gcc options: -lpthread

Hackbench
Count: 4 - Type: Thread

1. (CC) gcc options: -lpthread

Hackbench
Count: 8 - Type: Thread

1. (CC) gcc options: -lpthread

Hackbench
Count: 1 - Type: Process

1. (CC) gcc options: -lpthread

Hackbench
Count: 16 - Type: Thread

1. (CC) gcc options: -lpthread

Hackbench
Count: 2 - Type: Process

1. (CC) gcc options: -lpthread

Hackbench
Count: 4 - Type: Process

1. (CC) gcc options: -lpthread

Hackbench
Count: 8 - Type: Process

1. (CC) gcc options: -lpthread

Hackbench
Count: 16 - Type: Process

1. (CC) gcc options: -lpthread

Hackbench
Count: 32 - Type: Process

1. (CC) gcc options: -lpthread

m-queens 1.2
Time To Solve

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

Ngspice 34
Circuit: C2670

1. (CC) gcc options: -O0 -fopenmp -lm -lstdc++ -lfftw3 -lXaw -lXmu -lXt -lXext -lX11 -lSM -lICE

Ngspice 34
Circuit: C7552

1. (CC) gcc options: -O0 -fopenmp -lm -lstdc++ -lfftw3 -lXaw -lXmu -lXt -lXext -lX11 -lSM -lICE

Perl Benchmarks
Test: Pod2html

Perl Benchmarks
Test: Interpreter

Radiance Benchmark 5.0

Test: Serial

Radiance Benchmark 5.0

Test: SMP Parallel

R Benchmark

RNNoise 0.2

Input: 26 Minute Long Talking Sample

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

System GZIP Decompression

System XZ Decompression

Tachyon 0.99.2
Total Time

1. (CC) gcc options: -m64 -O3 -fomit-frame-pointer -ffast-math -ltachyon -lm -lpthread

Google SynthMark 20201109
Test: VoiceMark_100

1. (CXX) g++ options: -lm -lpthread -std=c++11 -Ofast

Aircrack-ng 1.7

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

SecureMark 1.0.4
Benchmark: SecureMark-TLS

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

OpenJPEG 2.4
Encode: NASA Curiosity Panorama M34

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

ArrayFire 3.9
Test: BLAS CPU FP16

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

ArrayFire 3.9
Test: BLAS CPU FP32

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

ArrayFire 3.9
Test: Black Scholes CPU

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

ArrayFire 3.9
Test: Conjugate Gradient CPU

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

ArrayFire 3.9
Test: Neural Network CPU FP32

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

OpenSSL 3.3
Algorithm: SHA256

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

OpenSSL 3.3
Algorithm: SHA512

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

OpenSSL 3.3
Algorithm: RSA4096

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

OpenSSL 3.3
Algorithm: RSA4096

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

OpenSSL 3.3
Algorithm: ChaCha20

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

OpenSSL 3.3
Algorithm: AES-128-GCM

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

OpenSSL 3.3
Algorithm: AES-256-GCM

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

OpenSSL 3.3
Algorithm: ChaCha20-Poly1305

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

Node.js V8 Web Tooling Benchmark

Liquid-DSP 1.6
Threads: 1 - Buffer Length: 256 - Filter Length: 32

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 1 - Buffer Length: 256 - Filter Length: 57

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 2 - Buffer Length: 256 - Filter Length: 32

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 2 - Buffer Length: 256 - Filter Length: 57

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 4 - Buffer Length: 256 - Filter Length: 32

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 4 - Buffer Length: 256 - Filter Length: 57

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 8 - Buffer Length: 256 - Filter Length: 32

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 8 - Buffer Length: 256 - Filter Length: 57

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 1 - Buffer Length: 256 - Filter Length: 512

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 16 - Buffer Length: 256 - Filter Length: 32

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 16 - Buffer Length: 256 - Filter Length: 57

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 2 - Buffer Length: 256 - Filter Length: 512

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 32 - Buffer Length: 256 - Filter Length: 32

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 32 - Buffer Length: 256 - Filter Length: 57

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 4 - Buffer Length: 256 - Filter Length: 512

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 64 - Buffer Length: 256 - Filter Length: 32

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 64 - Buffer Length: 256 - Filter Length: 57

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 8 - Buffer Length: 256 - Filter Length: 512

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 16 - Buffer Length: 256 - Filter Length: 512

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 32 - Buffer Length: 256 - Filter Length: 512

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

Liquid-DSP 1.6

Threads: 64 - Buffer Length: 256 - Filter Length: 512

1. (CC) gcc options: -O3 -pthread -lm -lc -lliquid

etcd 3.5.4

Test: PUT - Connections: 50 - Clients: 100

etcd 3.5.4

Test: PUT - Connections: 50 - Clients: 100 - Average Latency

etcd 3.5.4

Test: PUT - Connections: 100 - Clients: 100

etcd 3.5.4

Test: PUT - Connections: 100 - Clients: 100 - Average Latency

etcd 3.5.4

Test: PUT - Connections: 50 - Clients: 1000

etcd 3.5.4

Test: PUT - Connections: 50 - Clients: 1000 - Average Latency

etcd 3.5.4

Test: PUT - Connections: 500 - Clients: 100

etcd 3.5.4

Test: PUT - Connections: 500 - Clients: 100 - Average Latency

etcd 3.5.4

Test: PUT - Connections: 100 - Clients: 1000

etcd 3.5.4

Test: PUT - Connections: 100 - Clients: 1000 - Average Latency

etcd 3.5.4

Test: PUT - Connections: 500 - Clients: 1000

etcd 3.5.4

Test: PUT - Connections: 500 - Clients: 1000 - Average Latency

etcd 3.5.4

Test: RANGE - Connections: 50 - Clients: 100

etcd 3.5.4

Test: RANGE - Connections: 50 - Clients: 100 - Average Latency

etcd 3.5.4

Test: RANGE - Connections: 100 - Clients: 100

etcd 3.5.4

Test: RANGE - Connections: 100 - Clients: 100 - Average Latency

etcd 3.5.4

Test: RANGE - Connections: 50 - Clients: 1000

etcd 3.5.4

Test: RANGE - Connections: 50 - Clients: 1000 - Average Latency

etcd 3.5.4

Test: RANGE - Connections: 500 - Clients: 100

etcd 3.5.4

Test: RANGE - Connections: 500 - Clients: 100 - Average Latency

etcd 3.5.4

Test: RANGE - Connections: 100 - Clients: 1000

etcd 3.5.4

Test: RANGE - Connections: 100 - Clients: 1000 - Average Latency

etcd 3.5.4

Test: RANGE - Connections: 500 - Clients: 1000

etcd 3.5.4

Test: RANGE - Connections: 500 - Clients: 1000 - Average Latency

CockroachDB 22.2
Workload: MoVR - Concurrency: 128

CockroachDB 22.2
Workload: MoVR - Concurrency: 256

CockroachDB 22.2
Workload: MoVR - Concurrency: 512

CockroachDB 22.2
Workload: MoVR - Concurrency: 1024

CockroachDB 22.2
Workload: KV, 10% Reads - Concurrency: 128

CockroachDB 22.2
Workload: KV, 10% Reads - Concurrency: 256

CockroachDB 22.2
Workload: KV, 10% Reads - Concurrency: 512

CockroachDB 22.2
Workload: KV, 50% Reads - Concurrency: 128

CockroachDB 22.2
Workload: KV, 50% Reads - Concurrency: 256

CockroachDB 22.2
Workload: KV, 50% Reads - Concurrency: 512

CockroachDB 22.2
Workload: KV, 60% Reads - Concurrency: 128

CockroachDB 22.2
Workload: KV, 60% Reads - Concurrency: 256

CockroachDB 22.2
Workload: KV, 60% Reads - Concurrency: 512

CockroachDB 22.2
Workload: KV, 95% Reads - Concurrency: 128

CockroachDB 22.2
Workload: KV, 95% Reads - Concurrency: 256

CockroachDB 22.2
Workload: KV, 95% Reads - Concurrency: 512

CockroachDB 22.2
Workload: KV, 10% Reads - Concurrency: 1024

CockroachDB 22.2
Workload: KV, 50% Reads - Concurrency: 1024

CockroachDB 22.2

Workload: KV, 60% Reads - Concurrency: 1024

CockroachDB 22.2

Workload: KV, 95% Reads - Concurrency: 1024

Dragonflydb 1.6.2

Clients Per Thread: 10 - Set To Get Ratio: 1:1

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2

Clients Per Thread: 10 - Set To Get Ratio: 1:5

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2

Clients Per Thread: 10 - Set To Get Ratio: 5:1

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2
Clients Per Thread: 20 - Set To Get Ratio: 1:1

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2
Clients Per Thread: 20 - Set To Get Ratio: 1:5

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2
Clients Per Thread: 20 - Set To Get Ratio: 5:1

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2
Clients Per Thread: 50 - Set To Get Ratio: 1:1

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2
Clients Per Thread: 50 - Set To Get Ratio: 1:5

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2
Clients Per Thread: 50 - Set To Get Ratio: 5:1

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2
Clients Per Thread: 10 - Set To Get Ratio: 1:10

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2
Clients Per Thread: 20 - Set To Get Ratio: 1:10

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2
Clients Per Thread: 50 - Set To Get Ratio: 1:10

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2
Clients Per Thread: 10 - Set To Get Ratio: 1:100

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2

Clients Per Thread: 20 - Set To Get Ratio: 1:100

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Dragonflydb 1.6.2

Clients Per Thread: 50 - Set To Get Ratio: 1:100

1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

Redis 7.0.4

Test: GET - Parallel Connections: 50

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

Redis 7.0.4

Test: SET - Parallel Connections: 50

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

Redis 7.0.4

Test: GET - Parallel Connections: 500

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

Redis 7.0.4
Test: LPOP - Parallel Connections: 50

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

Redis 7.0.4
Test: SADD - Parallel Connections: 50

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

Redis 7.0.4
Test: SET - Parallel Connections: 500

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

Redis 7.0.4
Test: GET - Parallel Connections: 1000

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

Redis 7.0.4
Test: LPOP - Parallel Connections: 500

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

Redis 7.0.4

Test: LPUSH - Parallel Connections: 50

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

Redis 7.0.4

Test: SADD - Parallel Connections: 500

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

Redis 7.0.4

Test: SET - Parallel Connections: 1000

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

Redis 7.0.4

Test: LPOP - Parallel Connections: 1000

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

Redis 7.0.4

Test: LPUSH - Parallel Connections: 500

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

Redis 7.0.4

Test: SADD - Parallel Connections: 1000

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

Redis 7.0.4

Test: LPUSH - Parallel Connections: 1000

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

FinanceBench 2016-07-25

Benchmark: Repo OpenMP

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

FinanceBench 2016-07-25

Benchmark: Bonds OpenMP

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

ASTC Encoder 4.7

Preset: Fast

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

ASTC Encoder 4.7
Preset: Medium

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

ASTC Encoder 4.7
Preset: Thorough

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

ASTC Encoder 4.7
Preset: Exhaustive

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

ASTC Encoder 4.7
Preset: Very Thorough

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

libjpeg-turbo tjbench 2.1.0
Test: Decompression Throughput

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

MariaDB 11.5

Test: oltp_read_only - Threads: 1

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_only - Threads: 16

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_only - Threads: 32

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_only - Threads: 64

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_write - Threads: 1

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_write_only - Threads: 1

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_only - Threads: 128

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_only - Threads: 256

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_only - Threads: 512

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_only - Threads: 768

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_write - Threads: 16

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_write - Threads: 32

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_write - Threads: 64

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_write_only - Threads: 16

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_write_only - Threads: 32

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_write_only - Threads: 64

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_point_select - Threads: 1

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_write - Threads: 128

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_write - Threads: 256

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_read_write - Threads: 512

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_index - Threads: 1

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_write_only - Threads: 128

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_write_only - Threads: 256

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_write_only - Threads: 512

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_write_only - Threads: 768

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_point_select - Threads: 16

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_point_select - Threads: 32

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_point_select - Threads: 64

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_index - Threads: 16

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_index - Threads: 32

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_index - Threads: 64

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_point_select - Threads: 128

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_point_select - Threads: 256

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_point_select - Threads: 512

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_point_select - Threads: 768

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_index - Threads: 128

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_index - Threads: 256

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_index - Threads: 512

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_index - Threads: 768

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_non_index - Threads: 1

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_non_index - Threads: 16

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_non_index - Threads: 32

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_non_index - Threads: 64

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_non_index - Threads: 128

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_non_index - Threads: 256

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_non_index - Threads: 512

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB 11.5

Test: oltp_update_non_index - Threads: 768

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

TensorFlow Lite 2022-05-18

Model: SqueezeNet

TensorFlow Lite 2022-05-18

Model: Inception V4

TensorFlow Lite 2022-05-18

Model: NASNet Mobile

TensorFlow Lite 2022-05-18
Model: Mobilenet Float

TensorFlow Lite 2022-05-18
Model: Mobilenet Quant

TensorFlow Lite 2022-05-18
Model: Inception ResNet V2

MariaDB mariadb-slap 11.5
Clients: 1

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB mariadb-slap 11.5
Clients: 32

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB mariadb-slap 11.5
Clients: 64

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB mariadb-slap 11.5
Clients: 128

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB mariadb-slap 11.5
Clients: 256

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB mariadb-slap 11.5
Clients: 512

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB mariadb-slap 11.5
Clients: 1024

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB mariadb-slap 11.5
Clients: 2048

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB mariadb-slap 11.5
Clients: 4096

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

MariaDB mariadb-slap 11.5
Clients: 8192

1. (CXX) g++ options: -pie -fPIC -fstack-protector -O3 -lpcre2-8 -lcrypt -laio -lsystemd -lz -lm -lssl -lcrypto -lpthread -ldl

KTX-Software toktx 4.0
Settings: UASTC 3

KTX-Software toktx 4.0
Settings: Zstd Compression 9

KTX-Software toktx 4.0
Settings: Zstd Compression 19

KTX-Software toktx 4.0
Settings: UASTC 3 + Zstd Compression 19

KTX-Software toktx 4.0
Settings: UASTC 4 + Zstd Compression 19

GEGL
Operation: Crop

GEGL
Operation: Scale

GEGL
Operation: Cartoon

GEGL
Operation: Reflect

GEGL
Operation: Antialias

GEGL
Operation: Tile Glass

GEGL
Operation: Wavelet Blur

GEGL
Operation: Color Enhance

GEGL
Operation: Rotate 90 Degrees

GNU Octave Benchmark 7.3.0

librsvg

Operation: SVG Files To PNG

1. rsvg-convert version 2.50.7

Google Draco 1.5.6

Model: Lion

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

Google Draco 1.5.6

Model: Church Facade

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

BenchmarkMutex

Benchmark: Shared Mutex Lock Shared

1. (CXX) g++ options: -std=c++17 -lbenchmark -pthread

BenchmarkMutex
Benchmark: Mutex Lock Unlock spinlock

1. (CXX) g++ options: -std=c++17 -lbenchmark -pthread

BenchmarkMutex
Benchmark: Mutex Lock Unlock std::mutex

1. (CXX) g++ options: -std=c++17 -lbenchmark -pthread

BenchmarkMutex
Benchmark: Mutex Lock Unlock std::mutex

1. (CXX) g++ options: -std=c++17 -lbenchmark -pthread

BenchmarkMutex
Benchmark: Semaphore Release And Acquire

1. (CXX) g++ options: -std=c++17 -lbenchmark -pthread

BenchmarkMutex
Benchmark: Mutex Lock Unlock spinlock_amd

1. (CXX) g++ options: -std=c++17 -lbenchmark -pthread

BenchmarkMutex

Benchmark: Mutex Lock Unlock pthread_mutex

1. (CXX) g++ options: -std=c++17 -lbenchmark -pthread

BenchmarkMutex

Benchmark: Mutex Lock Unlock ticket_spinlock

1. (CXX) g++ options: -std=c++17 -lbenchmark -pthread

Stress-NG 0.17.08

Test: Hash

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08

Test: MMAP

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: NUMA

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Pipe

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Poll

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Zlib

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Futex

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: MEMFD

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Mutex

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Atomic

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Crypto

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Malloc

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Cloning

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Forking

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Pthread

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: AVL Tree

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: SENDFILE

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: CPU Cache

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: CPU Stress

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Power Math

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Semaphores

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Matrix Math

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Vector Math

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: AVX-512 VNNI

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Function Call

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: x86_64 RdRand

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Floating Point

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Matrix 3D Math

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Memory Copying

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Vector Shuffle

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Mixed Scheduler

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Socket Activity

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Exponential Math

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Jpeg Compression

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Logarithmic Math

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Wide Vector Math

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Context Switching

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Fractal Generator

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Radix String Sort

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Fused Multiply-Add

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Trigonometric Math

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Bitonic Integer Sort

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Vector Floating Point

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Glibc C String Functions

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: Glibc Qsort Data Sorting

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Stress-NG 0.17.08
Test: System V Message Passing

1. (CXX) g++ options: -lm -laio -latomic -lcrypt -ldl -ljpeg -lEGL -lGLESv2 -lgmp -lmpfr -lsctp -lz -lrt -lpthread -lc -std=gnu99 -O2 -U_FORTIFY_SOURCE

Caffe 2020-02-13

Model: AlexNet - Acceleration: CPU - Iterations: 100

1. (CXX) g++ options: -fPIC -O3 -rdynamic -lboost_system -lboost_thread -lboost_filesystem -lboost_chrono -lboost_date_time -lboost_atomic -lglog -lgflags -lprotobu

Caffe 2020-02-13

Model: AlexNet - Acceleration: CPU - Iterations: 200

1. (CXX) g++ options: -fPIC -O3 -rdynamic -lboost_system -lboost_thread -lboost_filesystem -lboost_chrono -lboost_date_time -lboost_atomic -lglog -lgflags -lprotobu

Caffe 2020-02-13

Model: AlexNet - Acceleration: CPU - Iterations: 1000

1. (CXX) g++ options: -fPIC -O3 -rdynamic -lboost_system -lboost_thread -lboost_filesystem -lboost_chrono -lboost_date_time -lboost_atomic -lglog -lgflags -lprotobu

Caffe 2020-02-13

Model: GoogleNet - Acceleration: CPU - Iterations: 100

1. (CXX) g++ options: -fPIC -O3 -rdynamic -lboost_system -lboost_thread -lboost_filesystem -lboost_chrono -lboost_date_time -lboost_atomic -lglog -lgflags -lprotobu

Caffe 2020-02-13

Model: GoogleNet - Acceleration: CPU - Iterations: 200

1. (CXX) g++ options: -fPIC -O3 -rdynamic -lboost_system -lboost_thread -lboost_filesystem -lboost_chrono -lboost_date_time -lboost_atomic -lglog -lgflags -lprotobu

Caffe 2020-02-13

Model: GoogleNet - Acceleration: CPU - Iterations: 1000

1. (CXX) g++ options: -fPIC -O3 -rdynamic -lboost_system -lboost_thread -lboost_filesystem -lboost_chrono -lboost_date_time -lboost_atomic -lglog -lgflags -lprotobu

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 -fno-exception

Mobile Neural Network 2.1

Model: mobilenetV3

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

Mobile Neural Network 2.1
Model: squeezenetv1.1

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

Mobile Neural Network 2.1
Model: resnet-v2-50

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

Mobile Neural Network 2.1
Model: SqueezeNetV1.0

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

Mobile Neural Network 2.1
Model: MobileNetV2_224

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

Mobile Neural Network 2.1

Model: mobilenet-v1-1.0

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

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 -fno-exception

NCNN 20230517

Target: CPU - Model: mobilenet

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

NCNN 20230517

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

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

NCNN 20230517

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

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

NCNN 20230517
Target: CPU - Model: shufflenet-v2

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

NCNN 20230517
Target: CPU - Model: mnasnet

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

NCNN 20230517
Target: CPU - Model: efficientnet-b0

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

NCNN 20230517
Target: CPU - Model: blazeface

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

NCNN 20230517
Target: CPU - Model: googlenet

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

NCNN 20230517
Target: CPU - Model: vgg16

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

NCNN 20230517
Target: CPU - Model: resnet18

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

NCNN 20230517
Target: CPU - Model: alexnet

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

NCNN 20230517
Target: CPU - Model: resnet50

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

NCNN 20230517
Target: CPU - Model: yolov4-tiny

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

NCNN 20230517

Target: CPU - Model: squeezenet_ssd

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

NCNN 20230517

Target: CPU - Model: regnety_400m

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

NCNN 20230517

Target: CPU - Model: vision_transformer

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

NCNN 20230517

Target: CPU - Model: FastestDet

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

NCNN 20230517

Target: Vulkan GPU - Model: mobilenet

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

NCNN 20230517

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

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

NCNN 20230517

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

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

NCNN 20230517

Target: Vulkan GPU - Model: shufflenet-v2

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

NCNN 20230517

Target: Vulkan GPU - Model: mnasnet

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

NCNN 20230517

Target: Vulkan GPU - Model: efficientnet-b0

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

NCNN 20230517

Target: Vulkan GPU - Model: blazeface

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

NCNN 20230517

Target: Vulkan GPU - Model: googlenet

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

NCNN 20230517

Target: Vulkan GPU - Model: vgg16

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

NCNN 20230517

Target: Vulkan GPU - Model: resnet18

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

NCNN 20230517

Target: Vulkan GPU - Model: alexnet

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

NCNN 20230517

Target: Vulkan GPU - Model: resnet50

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

NCNN 20230517

Target: Vulkan GPU - Model: yolov4-tiny

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

NCNN 20230517

Target: Vulkan GPU - Model: squeezenet_ssd

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

NCNN 20230517

Target: Vulkan GPU - Model: regnety_400m

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

NCNN 20230517

Target: Vulkan GPU - Model: vision_transformer

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

NCNN 20230517

Target: Vulkan GPU - Model: FastestDet

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

TNN 0.3

Target: CPU - Model: DenseNet

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

TNN 0.3

Target: CPU - Model: MobileNet v2

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

TNN 0.3

Target: CPU - Model: SqueezeNet v2

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

TNN 0.3

Target: CPU - Model: SqueezeNet v1.1

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

Blender 4.2
Blend File: BMW27 - Compute: CPU-Only

Blender 4.2
Blend File: Junkshop - Compute: CPU-Only

Blender 4.2
Blend File: Classroom - Compute: CPU-Only

Blender 4.2
Blend File: Fishy Cat - Compute: CPU-Only

Blender 4.2
Blend File: Barbershop - Compute: CPU-Only

Blender 4.2
Blend File: Pabellon Barcelona - Compute: CPU-Only

ctx_clock
Context Switch Time

PETSc 3.19
Test: Streams

1. (CC) gcc options: -fPIC -O3 -O2 -lpthread -ludev -lpciaccess -lm

Apache Cassandra 4.1.3
Test: Writes

Apache Cassandra 4.1.3
Test: Mixed 1:1

Apache Cassandra 4.1.3
Test: Mixed 1:3

RocksDB 9.0
Test: Overwrite

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

RocksDB 9.0
Test: Random Fill

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

RocksDB 9.0
Test: Random Read

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

RocksDB 9.0
Test: Update Random

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

RocksDB 9.0
Test: Sequential Fill

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

RocksDB 9.0
Test: Random Fill Sync

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

RocksDB 9.0
Test: Read While Writing

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

RocksDB 9.0
Test: Read Random Write Random

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

PyBench 2018-02-16
Total For Average Test Times

nginx 1.23.2
Connections: 100

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

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: 1000

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

NeatBench 5
Acceleration: All

NeatBench 5
Acceleration: CPU

Natron 2.4.3

Input: Spaceship

Apache HTTP Server 2.4.56

Concurrent Requests: 100

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

Apache HTTP Server 2.4.56

Concurrent Requests: 200

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

Apache HTTP Server 2.4.56

Concurrent Requests: 500

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

Apache HTTP Server 2.4.56

Concurrent Requests: 1000

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

Appleseed 2.0 Beta
Scene: Emily

Appleseed 2.0 Beta
Scene: Disney Material

Appleseed 2.0 Beta
Scene: Material Tester

PHPBench 0.8.1
PHP Benchmark Suite

WavPack Audio Encoding 5.7
WAV To WavPack

Git
Time To Complete Common Git Commands

1. git version 2.43.5

GnuPG 2.2.27

2.7GB Sample File Encryption

1. (CC) gcc options: -O2

PHP Micro Benchmarks

Test: Zend bench

PHP Micro Benchmarks

Test: Zend micro_bench

Tesseract OCR 4.1.1

Time To OCR 7 Images

Kripke 1.2.6

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

BRL-CAD 7.38.2

VGR Performance Metric

1. (CXX) g++ options: -std=c++17 -pipe -fvisibility=hidden -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth-128 -m64 -ggdb3 -O3 -fipa-pta -fstrength

Schbench 2021-09-09

Message Threads: 1

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

Schbench 2021-09-09

Message Threads: 1

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

Schbench 2021-09-09

Message Threads: 1

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

Schbench 2021-09-09
Message Threads: 1

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

Schbench 2021-09-09
Message Threads: 2

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

Schbench 2021-09-09
Message Threads: 2

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

Schbench 2021-09-09
Message Threads: 2

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

Schbench 2021-09-09
Message Threads: 2

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

Schbench 2021-09-09
Message Threads: 4

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

Schbench 2021-09-09
Message Threads: 4

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

Schbench 2021-09-09
Message Threads: 4

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

Schbench 2021-09-09
Message Threads: 4

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

Schbench 2021-09-09
Message Threads: 8

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

Schbench 2021-09-09
Message Threads: 8

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

Schbench 2021-09-09
Message Threads: 8

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

Schbench 2021-09-09
Message Threads: 8

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

Schbench 2021-09-09
Message Threads: 16

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

Schbench 2021-09-09
Message Threads: 16

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

Schbench 2021-09-09
Message Threads: 16

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

Schbench 2021-09-09
Message Threads: 16

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

Schbench 2021-09-09
Message Threads: 32

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

Schbench 2021-09-09
Message Threads: 32

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

Schbench 2021-09-09
Message Threads: 32

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

Schbench 2021-09-09
Message Threads: 32

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

Schbench 2021-09-09
Message Threads: 64

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

Schbench 2021-09-09
Message Threads: 64

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

Schbench 2021-09-09
Message Threads: 64

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

Schbench 2021-09-09
Message Threads: 64

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

Schbench 2021-09-09
Message Threads: 128

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

Schbench 2021-09-09
Message Threads: 128

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

Schbench 2021-09-09
Message Threads: 128

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

Schbench 2021-09-09
Message Threads: 128

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

Schbench 2021-09-09
Message Threads: 256

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

Schbench 2021-09-09

Message Threads: 256

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

Schbench 2021-09-09

Message Threads: 256

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

Schbench 2021-09-09

Message Threads: 256

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

InfluxDB 1.8.2

Concurrent Streams: 4 - Batch Size: 10000 - Tags: 2,5000,1 - Points Per Series: 10000

InfluxDB 1.8.2

Concurrent Streams: 64 - Batch Size: 10000 - Tags: 2,5000,1 - Points Per Series: 10000

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