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rocksdb threadripper

AMD Ryzen Threadripper 3990X 64-Core testing with a Gigabyte TRX40 AORUS PRO WIFI (F4p BIOS) and AMD Radeon RX 5700 8GB on Ubuntu 22.10 via the Phoronix Test Suite.

Automated Executive Summary

a had the most wins, coming in first place for 71% of the tests.

Based on the geometric mean of all complete results, the fastest (a) was 1.014x the speed of the slowest (c). b was 0.994x the speed of a and c was 0.992x the speed of b.

Test Systems:

a

b

C

Processor: AMD Ryzen Threadripper 3990X 64-Core @ 2.90GHz (64 Cores / 128 Threads), Motherboard: Gigabyte TRX40 AORUS PRO WIFI (F4p BIOS), Chipset: AMD Starship/Matisse, Memory: 128GB, Disk: Samsung SSD 970 EVO Plus 500GB, Graphics: AMD Radeon RX 5700 8GB (1750/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: DELL P2415Q, Network: Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 22.10, Kernel: 6.1.0-rc8-phx-mglru (x86_64), Desktop: GNOME Shell 43.0, Display Server: X Server 1.21.1.4 + Wayland, OpenGL: 4.6 Mesa 22.2.1 (LLVM 15.0.2 DRM 3.49), Vulkan: 1.3.224, Compiler: GCC 12.2.0 + LLVM 15.0.2, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-cet --enable-checking=release --enable-clocale-gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-defaulted --enable-offload-targets=nvptx-none=/build/gcc-12-U8K4Qv/gcc-12-12.2.0/debian/tmp-nvptx/usr,amdgn-amdhsa=/build/gcc-12-U8K4Qv/gcc-12-12.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

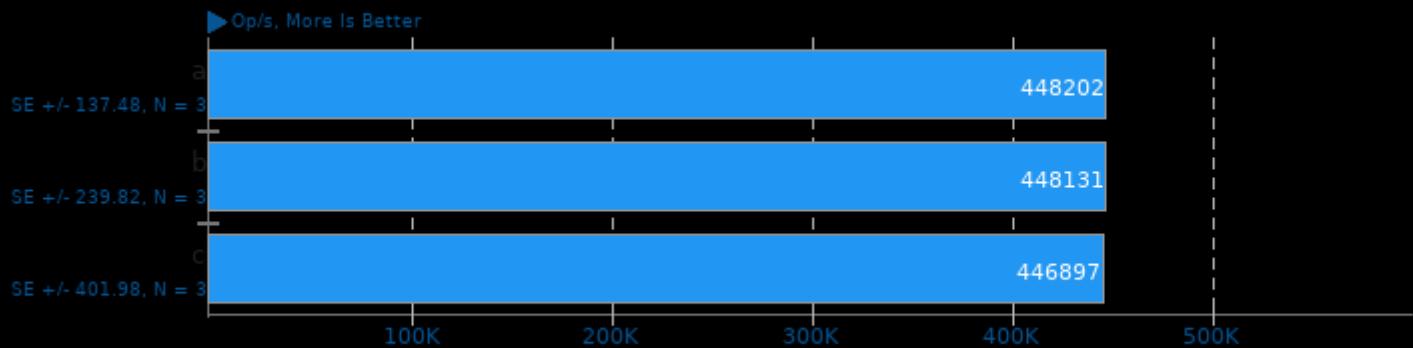
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0x8301055

Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + rebleed: Mitigation of untrained return thunk; SMT enabled with STIBP protection + 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 STIBP: always-on RSB filling PBRSB-eLBRSS: Not affected + srbs: Not affected + tsx_async_abort: Not affected

	a	b	c
RocksDB - Rand Fill (Op/s)	448202	448131	446897
Normalized	100%	99.98%	99.71%
Standard Deviation	0.1%	0.1%	0.2%
RocksDB - Rand Read (Op/s)	200420995	200050599	191889034
Normalized	100%	99.82%	95.74%
Standard Deviation	0.6%	1%	3.4%
RocksDB - Update Rand (Op/s)	435504	435221	434468
Normalized	100%	99.94%	99.76%
Standard Deviation	0.1%	0.2%	0.1%
RocksDB - Seq Fill (Op/s)	451322	452131	450864
Normalized	99.82%	100%	99.72%
Standard Deviation	0.1%	0.2%	0.1%
RocksDB - Rand Fill Sync (Op/s)	23280	23266	23312
Normalized	99.86%	99.8%	100%
Standard Deviation	0.1%	0%	0%
RocksDB - Read While Writing (Op/s)	6666118	6474126	6561130
Normalized	100%	97.12%	98.43%
Standard Deviation	0.7%	2.4%	2.3%
RocksDB - R.R.W.R (Op/s)	2768126	2742206	2680869
Normalized	100%	99.06%	96.85%
Standard Deviation	0.9%	1%	0.8%

RocksDB 7.9.2

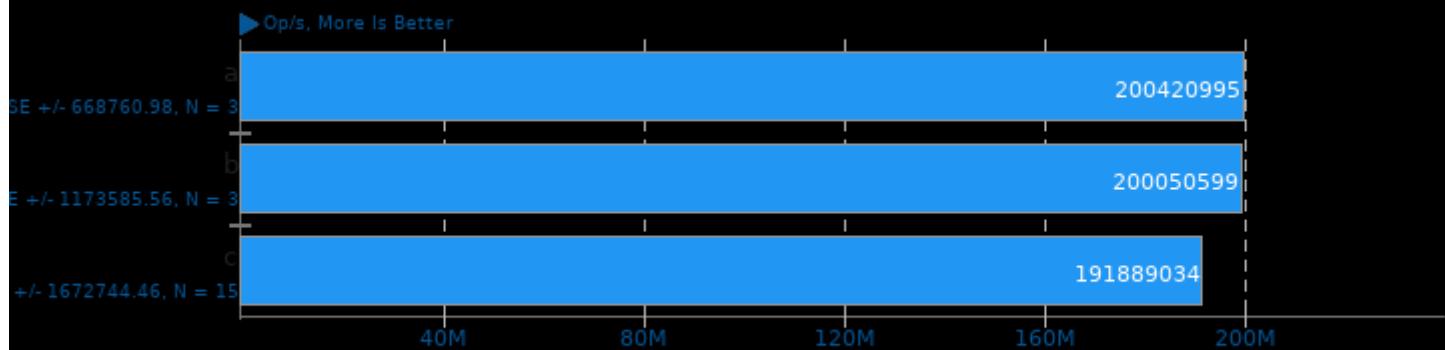
Test: Random Fill



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

RocksDB 7.9.2

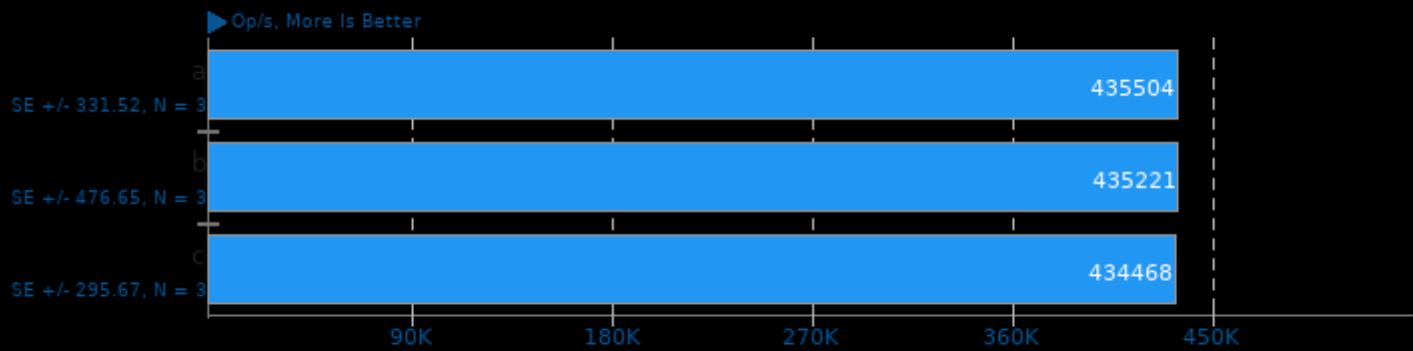
Test: Random Read



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

RocksDB 7.9.2

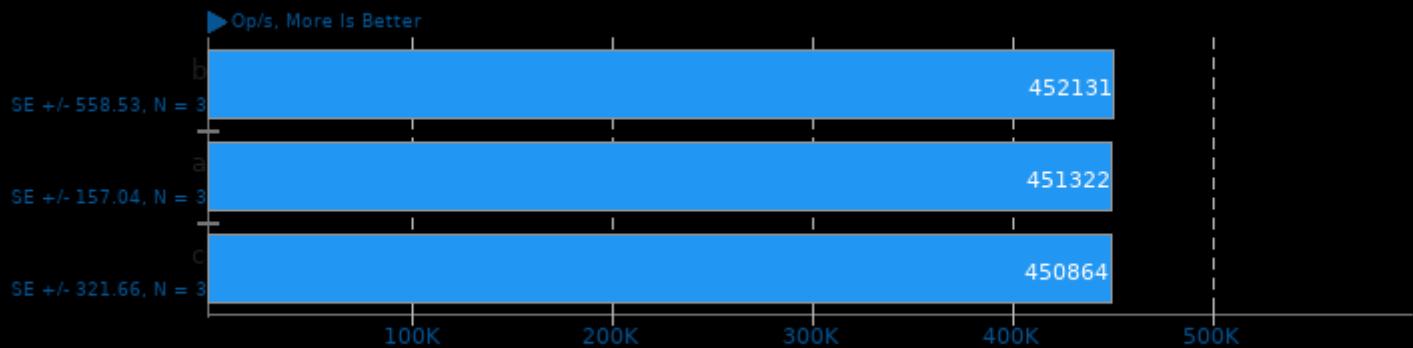
Test: Update Random



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

RocksDB 7.9.2

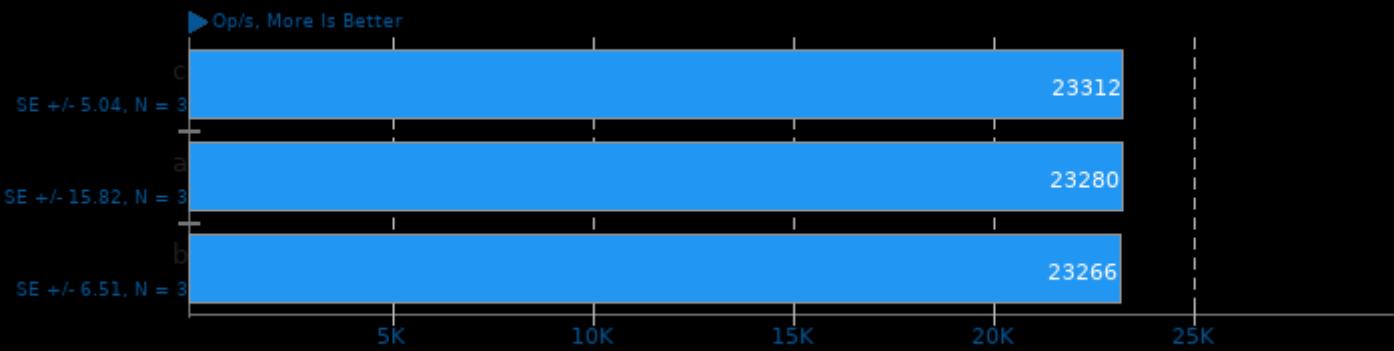
Test: Sequential Fill



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

RocksDB 7.9.2

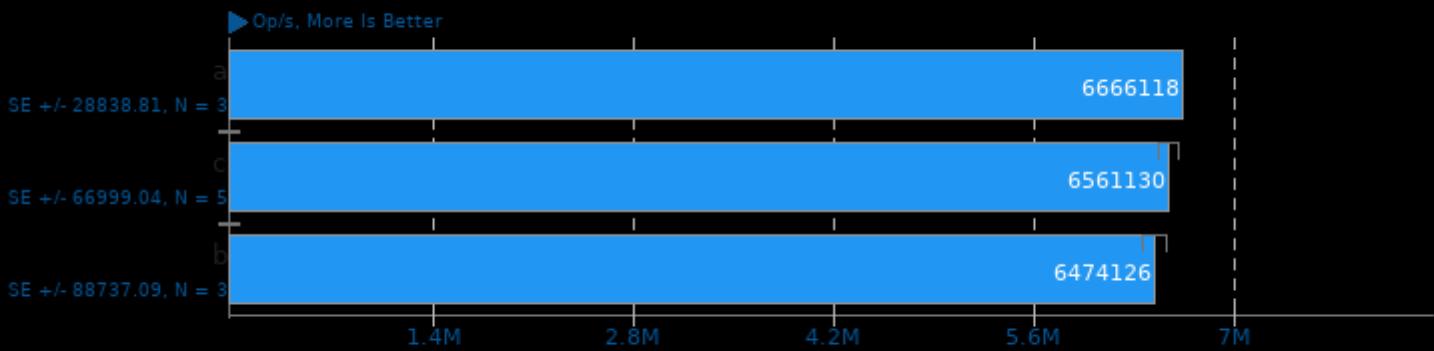
Test: Random Fill Sync



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

RocksDB 7.9.2

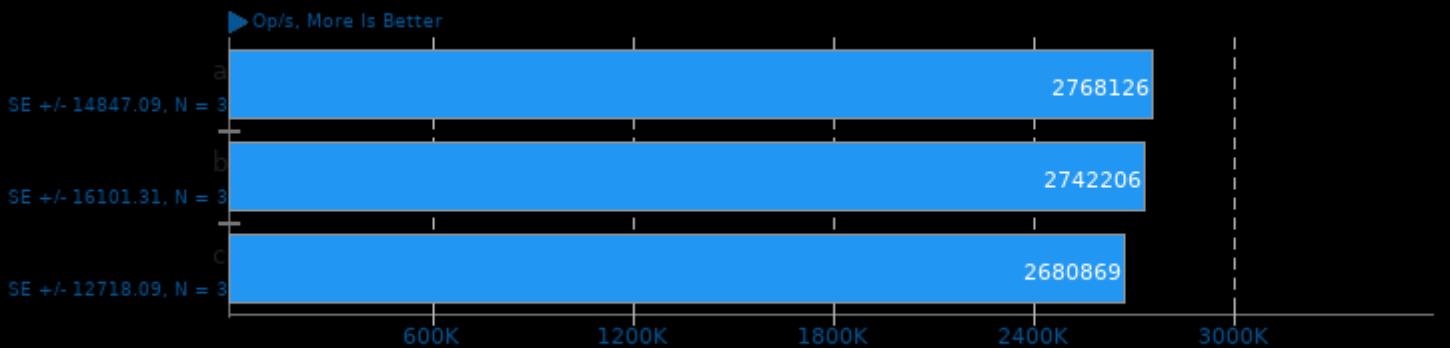
Test: Read While Writing



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

RocksDB 7.9.2

Test: Read Random Write Random



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

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 05:28.