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Rodinia Biological Simulation R9-7950X-A600048GB

AMD Ryzen 9 7950X3D 16-Core testing with a MSI MAG X670E TOMAHAWK WIFI (MS-7E12) v1.0 (1.80 BIOS) and NVIDIA RTX A6000 48GB on Ubuntu 22.04 via the Phoronix Test Suite.

Test Systems:

Biological Simulation CUDA

Processor: AMD Ryzen 9 7950X3D 16-Core @ 5.76GHz (16 Cores / 32 Threads), Motherboard: MSI MAG X670E TOMAHAWK WIFI (MS-7E12) v1.0 (1.80 BIOS), Chipset: AMD Device 14d8, Memory: 4 x 32GB DRAM-3600MT/s F5-6800J3445G32G, Disk: 2000GB Samsung SSD 990 PRO 2TB + 2 x 6001GB TOSHIBA MG08ADA6, Graphics: NVIDIA RTX A6000 48GB, Audio: NVIDIA GA102 HD Audio, Monitor: BenQ GW2480L, Network: Realtek RTL8125 2.5GbE + MEDIATEK Device 0616

OS: Ubuntu 22.04, Kernel: 6.5.0-41-generic (x86_64), Desktop: GNOME Shell 42.9, Display Server: X Server 1.21.1.4, Display Driver: NVIDIA 535.183.01, OpenGL: 4.6.0, OpenCL: OpenCL 3.0 CUDA 12.2.148, Vulkan: 1.3.242, Compiler: GCC 11.4.0 + CUDA 12.2, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-XeT9lY/gcc-11-11.4.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-XeT9lY/gcc-11-11.4.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: amd-pstate-epp powersave (EPP: balance_performance) - CPU Microcode: 0xa601206

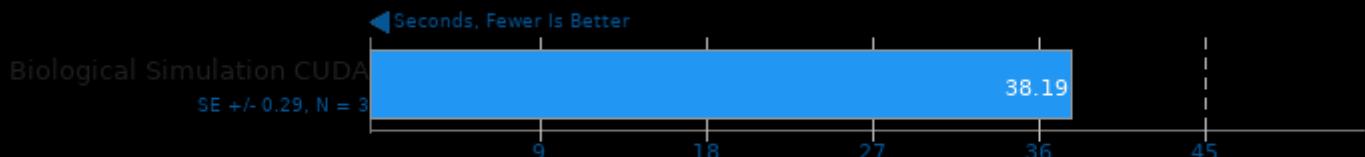
OpenCL Notes: GPU Compute Cores: 10752

Security Notes: 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 Enhanced / Automatic IBRS; IBPB: conditional; STIBP: always-on; RSB filling; PBRSB-eIBRS: Not affected; BHI: Not affected + srbds: Not affected + tsx_async_abort: Not affected

Biological Simulation CUDA**Rodinia - N.C.G.M (sec)** 38.190**Standard Deviation** 1.3%

Rodinia 3.1

Test: NVIDIA CUDA GPU Myocyte



1. (CXX) g++ options: -m64 -lm -lcuda -lcudart -lcudadevrt -lcudart_static -lrt -lpthread -ldl

This file was automatically generated via the Phoronix Test Suite benchmarking software on Sunday, 3 November 2024 04:31.