

SPEC CPU®2017 Floating Point Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

My Corporation

SPECrate®2017_fp_base = 0.00

SPECrate®2017_fp_peak = Not Run

CPU2017 License: nnn (Your SPEC license number)

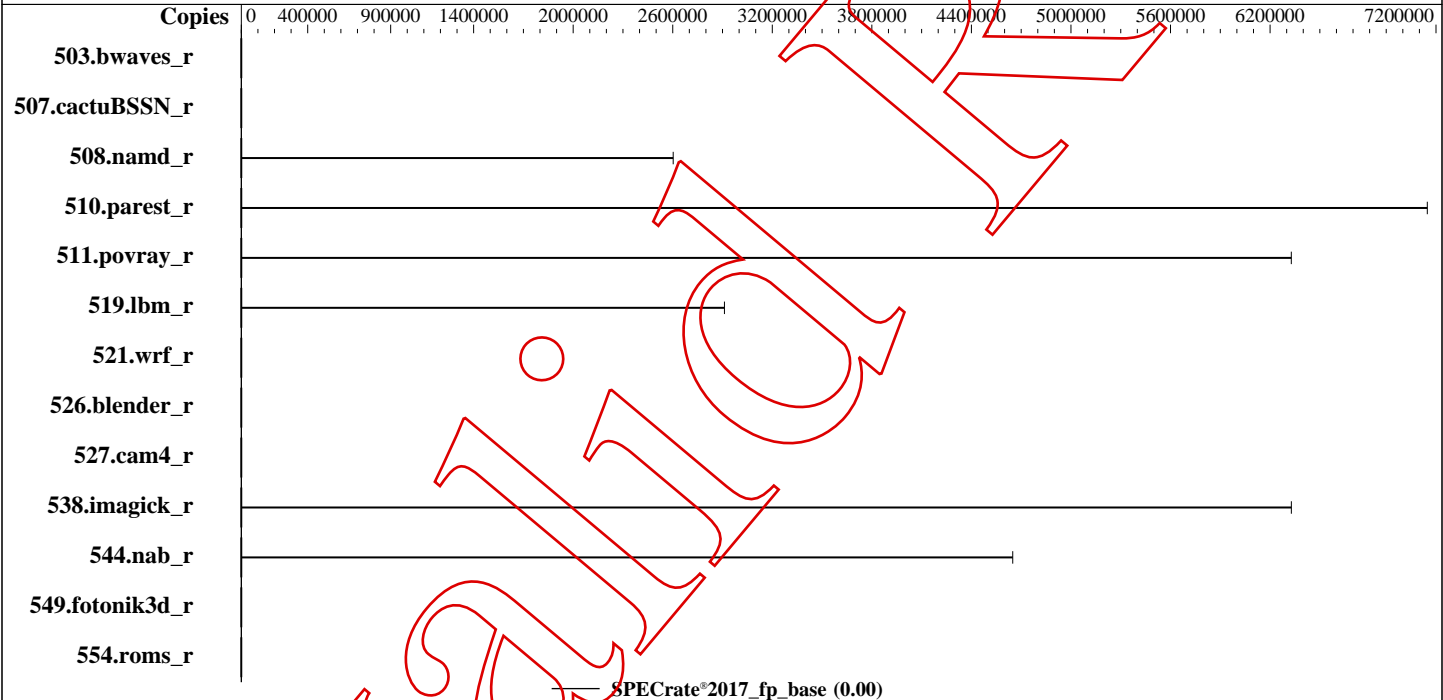
Test Sponsor: My Corporation

Tested by: My Corporation

Test Date: Jun-2024

Hardware Availability:

Software Availability:



Hardware

CPU Name: 13th Gen Intel Core i9-13900KS
Max MHz:
Nominal:
Enabled: cores, 1 chip, threads/core
Orderable:
Cache L1:
L2:
L3:
Other:
Memory: 125.561 GB fixme: If using DDR4, the format is:
'N GB (N x M GB nRxn PC4-nnnnX-X)'
Storage: 3.6 TB add more disk info here
Other:

Software

OS: Ubuntu 22.04.4 LTS
6.8.0-76060800daily20240311-generic
Compiler: C/C++/Fortran: Version 7.2.1 of GCC, the
GNU Compiler Collection
Parallel: No
Firmware:
File System: ext4
System State: Run level 5 (add definition here)
Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other:
Power Management: --

Errors

There is no set of valid runs with the same number of copies for base
'reportable' flag not set during run
538.imagick_r (base) did not have enough runs!
526.blender_r (base) did not have enough runs!
511.povray_r (base) did not have enough runs!
519.lbm_r (base) did not have enough runs!
521.wrf_r (base) did not have enough runs!

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Errors (Continued)

549.fotonik3d_r (base) did not have enough runs!

503.bwaves_r (base) did not have enough runs!

510.parest_r (base) did not have enough runs!

554.roms_r (base) did not have enough runs!

508.namd_r (base) did not have enough runs!

544.nab_r (base) did not have enough runs!

527.cam4_r (base) did not have enough runs!

507.cactuBSSN_r (base) did not have enough runs!

538.imagick_r (base) had invalid runs!

511.povray_r (base) had invalid runs!

519.lbm_r (base) had invalid runs!

510.parest_r (base) had invalid runs!

508.namd_r (base) had invalid runs!

544.nab_r (base) had invalid runs!

Run of 508.namd_r (base) was not valid; status is RE

Run of 510.parest_r (base) was not valid; status is RE

Run of 511.povray_r (base) was not valid; status is RE

Run of 519.lbm_r (base) was not valid; status is RE

Run of 538.imagick_r (base) was not valid; status is RE

Run of 544.nab_r (base) was not valid; status is RE

Unknown flags were used! See

<https://www.spec.org/cpu2017/Docs/runcpu.html#flagsurl>
for information about how to get rid of this error.

Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|-----------------|--------|----------|-------|---------|-------|---------|-------|--------|---------|-------|---------|-------|---------|-------|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 503.bwaves_r | | | | | | | | | | | | | | |
| 507.cactuBSSN_r | | | | | | | | | | | | | | |
| 508.namd_r | 1 | 0.000365 | 0.00 | | | | | | | | | | | |
| 510.parest_r | 1 | 0.000366 | 0.00 | | | | | | | | | | | |
| 511.povray_r | 1 | 0.000369 | 0.00 | | | | | | | | | | | |
| 519.lbm_r | 1 | 0.000362 | 0.00 | | | | | | | | | | | |
| 521.wrf_r | | | | | | | | | | | | | | |
| 526.blender_r | | | | | | | | | | | | | | |
| 527.cam4_r | | | | | | | | | | | | | | |
| 538.imagick_r | 1 | 0.000393 | 0.00 | | | | | | | | | | | |
| 544.nab_r | 1 | 0.000362 | 0.00 | | | | | | | | | | | |

Table continues on next page. Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

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Software Availability:

Results Table (Continued)

| Benchmark | Base | | | | | | | Peak | | | | | | |
|-----------------|--------|---------|-------|---------|-------|---------|-------|--------|---------|-------|---------|-------|---------|-------|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 549.fotonik3d_r | | | | | | | | | | | | | | |
| 554.roms_r | | | | | | | | | | | | | | |

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Environment Variables Notes

Environment variables set by runcpu before the start of the run:

LD_LIBRARY_PATH = "/usr/lib64/:/usr/lib/:/lib64"

Platform Notes

Sysinfo program /mnt/seconddrive/Code/seguecg-root/segue-lfi/spec2017/bin/sysinfo
Rev: r6365 of 2019-08-21 295195f888a3d7edble6e46a485a0011
running on shr-work Tue Jun 11 23:37:36 2024

SUT (System Under Test) info as seen by some common utilities.

For more information on this section, see

<https://www.spec.org/cpu2017/Docs/config.html#sysinfo>

From /proc/cpuinfo

model name : 13th Gen Intel(R) Core(TM) i9-13900KS

1 "physical id"s (chips)

24 "processors"

cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)

cpu cores : 24

siblings : 24

physical 0: cores 0 4 8 12 16 20 24 28 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

From lscpu

Architecture:

x86_64

CPU op-mode(s):

32-bit, 64-bit

Address sizes:

46 bits physical, 48 bits virtual

Byte Order:

Little Endian

CPU(s):

32

On-line CPU(s) list:

0,2,4,6,8,10,12,14,16-31

Off-line CPU(s) list:

1,3,5,7,9,11,13,15

Vendor ID:

GenuineIntel

Model name:

13th Gen Intel(R) Core(TM) i9-13900KS

(Continued on next page)

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Software Availability:

Platform Notes (Continued)

CPU family: 6
Model: 183
Thread(s) per core: 1
Core(s) per socket: 24
Socket(s): 1
Stepping: 1
CPU max MHz: 6000.0000
CPU min MHz: 0.0000
BogoMIPS: 5374.40
Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr
pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx
pdpelgb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology
nonstop_tsc cpuid aperfmperf tsc_known_freq pni pclmulqdq dtes64 monitor ds_cpl vmx
smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm sse4_1 sse4_2 x2apic movbe popcnt
tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault
ssbd ibrs ibpb stibp ibrs_enhanced tpr_shadow flexpriority ept vpid ept_ad fsgsbase
tsc_adjust bmi1 avx2 smep bmi2 erms invpcid rdseed adx smap clflushopt clwb intel_pt
sha_ni xsaveopt xsavec xsetbv1 xsaves split_lock_detect user_shstk avx_vnni dtherm
ida arat pln pts hwp hwp_notify hwp_act_window hwp_epp hwp_pkg_req hfi vnmi umip pku
ospke waitpkg gfni vaes vpclmulqdq tme rdpid movdiri movdir64b fsrm md_clear
serialize pconfig arch_lbr ibt flush_lld arch_capabilities
Virtualization: VT-x
L1d cache: 896 KiB (24 instances)
L1i cache: 1.3 MiB (24 instances)
L2 cache: 32 MiB (12 instances)
L3 cache: 36 MiB (1 instance)
NUMA node(s): 1
NUMA node0 CPU(s): 0,2,4,6,8,10,12,14,16-31
Vulnerability Gather data sampling: Not affected
Vulnerability Itlb multihit: Not affected
Vulnerability L1tf: Not affected
Vulnerability Mds: Not affected
Vulnerability Meltdown: Not affected
Vulnerability Mmio stale data: Not affected
Vulnerability Retbleed: Not affected
Vulnerability Spec rstack overflow: Not affected
Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled
via prctl
Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and __user
pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS, IBPB
conditional, RSB filling, PBRSE-eIBRS SW sequence
Vulnerability Srbds: Not affected
Vulnerability Tsx async abort: Not affected

/proc/cpuinfo cache data
cache size : 36864 KB

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Software Availability:

Platform Notes (Continued)

From numactl --hardware WARNING: a numactl 'node' might or might not correspond to a physical chip.

From /proc/meminfo

MemTotal: 131660532 kB

HugePages_Total: 0

Hugepagesize: 2048 kB

/usr/bin/lbs_release -d

Ubuntu 22.04.4 LTS

From /etc/*release* /etc/*version*

debian_version: bookworm/sid

os-release:

PRETTY_NAME="Ubuntu 22.04.4 LTS"

NAME="Ubuntu"

VERSION_ID="22.04"

VERSION="22.04.4 LTS (Jammy Jellyfish)"

VERSION_CODENAME=jammy

ID=ubuntu

ID_LIKE=debian

HOME_URL="https://www.ubuntu.com/"

uname -a:

Linux shr-work 6.8.0-76060800daily20240311-generic

#202403110203~1713206908~22.04~3a62479~dev-Ubuntu SMP PREEMPT_DY x86_64 x86_64 x86_64

GNU/Linux

Kernel self-reported vulnerability status:

gather_data_sampling:

Not affected

itlb_multihit:

Not affected

CVE-2018-3620 (11 Terminal Fault):

Not affected

Microarchitectural Data Sampling:

Not affected

CVE-2017-5754 (Meltdown):

Not affected

mmio_stale_data:

Not affected

retbleed:

Not affected

spec_rstack_overflow:

Not affected

CVE-2018-3639 (Speculative Store Bypass): Mitigation: Speculative Store Bypass disabled via prctl

CVE-2017-5753 (Spectre variant 1):

Mitigation: usercopy/swaps barriers and __user pointer sanitization

CVE-2017-5715 (Spectre variant 2):

Mitigation: Enhanced / Automatic IBRS, IBPB: conditional, RSB filling, PBR SB-eIBRS: SW sequence

srbds:

Not affected

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Platform Notes (Continued)

tsx_async_abort: Not affected

run-level 5 May 12 16:41

SPEC is set to: /mnt/seconddrive/Code/segueg-root/segue-lfi/spec2017

| Filesystem | Type | Size | Used | Avail | Use% | Mounted on |
|----------------|------|------|------|-------|------|------------------|
| /dev/nvme0n1p1 | ext4 | 3.6T | 690G | 2.8T | 20% | /mnt/seconddrive |

From /sys/devices/virtual/dmi/id
BIOS: System76 FH Z5 01/25/2024
Vendor: System76
Product: Thelio Mira
Product Family: Z790 MB

Cannot run dmidecode; consider saying (as root)
chmod +s /usr/sbin/dmidecode

(End of data from sysinfo program)

Compiler Version Notes

=====
C | 519.lbm_r(base) 538.imagick_r(base) 544.nab_r(base)
=====

Using built-in specs.

COLLECT_GCC=/opt/lfi-amd64/bin/internal-x86_64-linux-musl-gcc

COLLECT_LTO_WRAPPER=/opt/lfi-amd64/bin/./libexec/gcc/x86_64-linux-musl/13.2.0/lto-wrapper

Target: x86_64-linux-musl

Configured with: ../gcc/configure --target=x86_64-linux-musl --disable-docs

--disable-bootstrap --disable-libssp --disable-multilib --disable-shared

--enable-languages=c,c++ --enable-lto

--prefix=/home/zyedidia/programming/lfi/toolchain/lfi-gcc/lfi-amd64

--with-pkgversion=LFI

Thread model: posix

Supported LTO compression algorithms: zlib zstd

gcc version 13.2.0 (LFI)
=====

=====
C++ | 508.namd_r(base) 510.parest_r(base)
=====

Using built-in specs.

COLLECT_GCC=/opt/lfi-amd64/bin/internal-x86_64-linux-musl-g++

COLLECT_LTO_WRAPPER=/opt/lfi-amd64/bin/./libexec/gcc/x86_64-linux-musl/13.2.0/lto-wrapper

Target: x86_64-linux-musl

Configured with: ../gcc/configure --target=x86_64-linux-musl --disable-docs

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Compiler Version Notes (Continued)

```
--disable-bootstrap --disable-libssp --disable-multilib --disable-shared
--enable-languages=c,c++ --enable-lto
--prefix=/home/zyedidia/programming/lfi/toolchain/lfi-gcc/lfi-amd64
--with-pkgversion=LFI
Thread model: posix
Supported LTO compression algorithms: zlib zstd
gcc version 13.2.0 (LFI)
```

=====
C++, C | 511.povray_r(base)

Using built-in specs.

COLLECT_GCC=/opt/lfi-amd64/bin/internal-x86_64-linux-musl-g++

COLLECT_LTO_WRAPPER=/opt/lfi-amd64/bin/../libexec/gcc/x86_64-linux-musl/13.2.0/lto-wrapper

Target: x86_64-linux-musl

Configured with: ../gcc/configure --target=x86_64-linux-musl --disable-docs

--disable-bootstrap --disable-libssp --disable-multilib --disable-shared

--enable-languages=c,c++ --enable-lto

--prefix=/home/zyedidia/programming/lfi/toolchain/lfi-gcc/lfi-amd64

--with-pkgversion=LFI

Thread model: posix

Supported LTO compression algorithms: zlib zstd

gcc version 13.2.0 (LFI)

Using built-in specs.

COLLECT_GCC=/opt/lfi-amd64/bin/internal-x86_64-linux-musl-gcc

COLLECT_LTO_WRAPPER=/opt/lfi-amd64/bin/../libexec/gcc/x86_64-linux-musl/13.2.0/lto-wrapper

Target: x86_64-linux-musl

Configured with: ../gcc/configure --target=x86_64-linux-musl --disable-docs

--disable-bootstrap --disable-libssp --disable-multilib --disable-shared

--enable-languages=c,c++ --enable-lto

--prefix=/home/zyedidia/programming/lfi/toolchain/lfi-gcc/lfi-amd64

--with-pkgversion=LFI

Thread model: posix

Supported LTO compression algorithms: zlib zstd

gcc version 13.2.0 (LFI)

Base Unknown Flags

508.namd_r: "/opt/lfi-amd64/bin/x86_64-linux-musl-" (in CXX)

"/opt/lfi-amd64/bin/x86_64-linux-musl-" (in LD)

"-fomit-frame-pointer" (in OPTIMIZE)

510.parest_r: "/opt/lfi-amd64/bin/x86_64-linux-musl-" (in CXX)

"/opt/lfi-amd64/bin/x86_64-linux-musl-" (in LD)

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Base Unknown Flags (Continued)

510.parest_r (continued):

"-fomit-frame-pointer" (in OPTIMIZE)

511.povray_r: "/opt/lfi-amd64/bin/x86_64-linux-musl-" (in CXX)

"/opt/lfi-amd64/bin/x86_64-linux-musl-" (in CC)

"/opt/lfi-amd64/bin/x86_64-linux-musl-" (in LD)

"-fomit-frame-pointer" (in OPTIMIZE)

519.lbm_r: "/opt/lfi-amd64/bin/x86_64-linux-musl-" (in CC)

"/opt/lfi-amd64/bin/x86_64-linux-musl-" (in LD)

"-fomit-frame-pointer" (in OPTIMIZE)

538.imagick_r: "/opt/lfi-amd64/bin/x86_64-linux-musl-" (in CC)

"/opt/lfi-amd64/bin/x86_64-linux-musl-" (in LD)

"-fomit-frame-pointer" (in OPTIMIZE)

544.nab_r: "/opt/lfi-amd64/bin/x86_64-linux-musl-" (in CC)

"/opt/lfi-amd64/bin/x86_64-linux-musl-" (in LD)

"-fomit-frame-pointer" (in OPTIMIZE)

Base Runtime Environment

Benchmarks using both C and C++:

511.povray_r: No flags used

Base Compiler Invocation

C benchmarks:

gcc

C++ benchmarks:

g++

Benchmarks using both C and C++:

511.povray_r: g++ gcc

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Base Portability Flags

508.namd_r: -DSPEC_LP64
510.parest_r: -DSPEC_LP64
511.povray_r: -DSPEC_LP64
519.lbm_r: -DSPEC_LP64
538.imagick_r: -DSPEC_LP64
544.nab_r: -DSPEC_LP64

Base Optimization Flags

C benchmarks:

-std=c99 -O3 -flto

C++ benchmarks:

-std=c++03 -O3 -flto

Benchmarks using both C and C++:

511.povray_r: -std=c++03 -std=c99 -O3 -flto

Base Other Flags

Benchmarks using both C and C++:

511.povray_r: No flags used

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For questions about this result, please contact the tester. For other inquiries, please contact info@spec.org.

Tested with SPEC CPU®2017 v0.0.0 on 2024-06-11 23:37:35-0500.

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