SPEC CPU®2017 Integer Rate Result

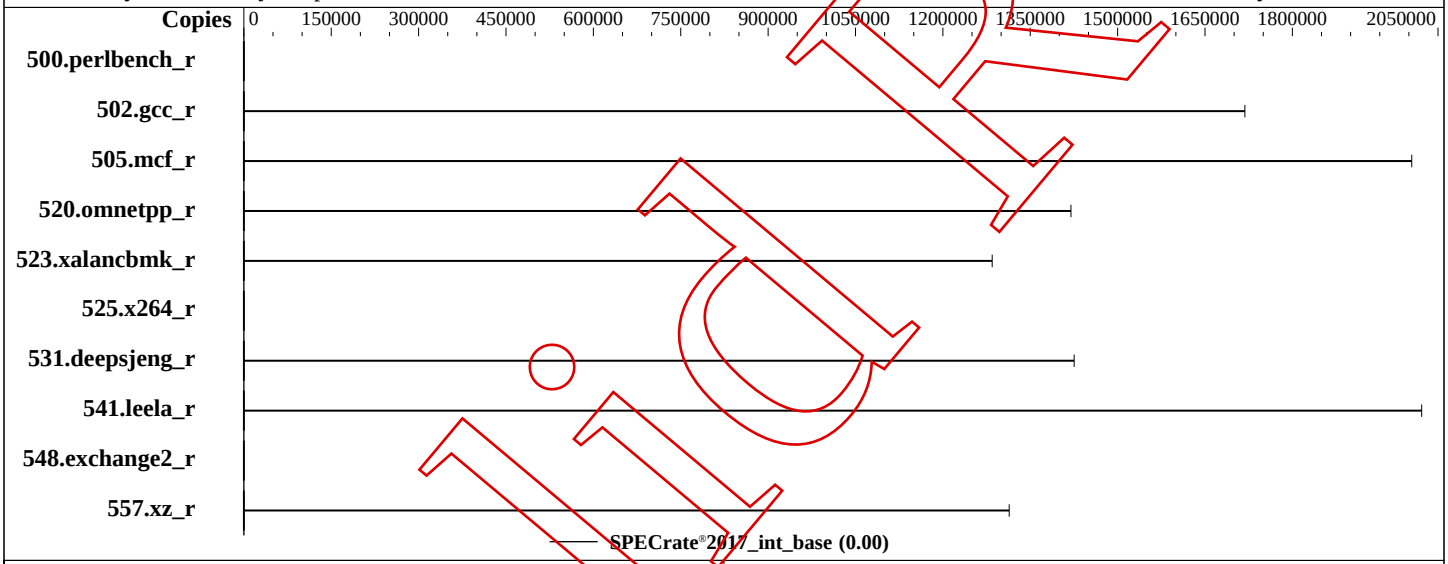
My Corporation

SPECrate®2017_int_base = 0.00

SPECrate®2017_int_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 N 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
523.xalancbmk_r (base) did not have enough runs!
557.xz_r (base) did not have enough runs!
502.gcc_r (base) did not have enough runs!
548.exchange2_r (base) did not have enough runs!
531.deepsjeng_r (base) did not have enough runs!
525.x264_r (base) did not have enough runs!
505.mcf_r (base) did not have enough runs!
520.omnetpp_r (base) did not have enough runs!
541.leela_r (base) did not have enough runs!

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Software Availability:

Errors (Continued)

500.perlbench_r (base) did not have enough runs!
523.xalancbmk_r (base) had invalid runs!
557.xz_r (base) had invalid runs!
502.gcc_r (base) had invalid runs!
531.deepsjeng_r (base) had invalid runs!
505.mcf_r (base) had invalid runs!
520.omnetpp_r (base) had invalid runs!
541.leela_r (base) had invalid runs!
Run of 502.gcc_r (base) was not valid; status is RE
Run of 505.mcf_r (base) was not valid; status is RE
Run of 520.omnetpp_r (base) was not valid; status is RE
Run of 523.xalancbmk_r (base) was not valid; status is RE
Run of 531.deepsjeng_r (base) was not valid; status is RE
Run of 541.leela_r (base) was not valid; status is RE
Run of 557.xz_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
500.perlbench_r														
502.gcc_r	1	0.000824	0.00											
505.mcf_r	1	0.000806	0.00											
520.omnetpp_r	1	0.000924	0.00											
523.xalancbmk_r	1	0.000822	0.00											
525.x264_r														
531.deepsjeng_r	1	0.000804	0.00											
541.leela_r	1	0.000819	0.00											
548.exchange2_r														
557.xz_r	1	0.000822	0.00											

SPECrate®2017_int_base = 0.00

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Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

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 295195f888a3d7edb1e6e46a485a0011
running on shr-work Tue Jun 11 23:37:17 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
     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:                        6374.40
     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
      pdpe1gb 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
```

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Platform Notes (Continued)

```
      sha_ni xsaveopt xsavec xgetbv1 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_l1d 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, PBRSB-eIBRS SW sequence
      Vulnerability Srbds:             Not affected
      Vulnerability Tsx async abort:   Not affected

  /proc/cpuinfo cache data
     cache size : 36864 KB

  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/lsb_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"
```

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Platform Notes (Continued)

```
      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 (L1 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/swapgs barriers and __user
                                          pointer sanitization
CVE-2017-5715 (Spectre variant 2):       Mitigation: Enhanced / Automatic IBRS, IBPB:
                                          conditional, RSB filling, PBRSB-eIBRS: SW
                                          sequence
srbds:                                   Not affected
tsx_async_abort:                         Not affected

run-level 5 May 12 16:41

SPEC is set to: /mnt/seconddrive/Code/seguecg-root/segue-lfi/spec2017
   Filesystem     Type  Size  Used Avail Use% Mounted on
   /dev/nvme0n1p1 ext4  3.6T  692G  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
```


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Platform Notes (Continued)

```
 (End of data from sysinfo program)
```

Compiler Version Notes

```
==============================================================================
C   | 502.gcc_r(base) 505.mcf_r(base) 525.x264_r(base) 557.xz_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++ | 520.omnetpp_r(base) 523.xalancbmk_r(base) 531.deepsjeng_r(base)
    | 541.leela_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)
------------------------------------------------------------------------------
```

Base Unknown Flags

502.gcc_r: "`/opt/lfi-amd64/bin/x86_64-linux-musl-`" (in `CC`)
"`/opt/lfi-amd64/bin/x86_64-linux-musl-`" (in `LD`)
"`-fwrapv`" (in `PORTABILITY`)
"`-fomit-frame-pointer`" (in `OPTIMIZE`)

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Base Unknown Flags (Continued)

505.mcf_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)

520.omnetpp_r: "/opt/lfi-amd64/bin/x86_64-linux-musl-" (in CXX)
"/opt/lfi-amd64/bin/x86_64-linux-musl-" (in LD)
"-D_LARGEFILE64_SOURCE" (in PORTABILITY)
"-fomit-frame-pointer" (in OPTIMIZE)

523.xalancbmk_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)

531.deepsjeng_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)

541.leela_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)

557.xz_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 Compiler Invocation

C benchmarks (except as noted below):
gcc

C++ benchmarks:
g++

Base Portability Flags

502.gcc_r: -DSPEC_LP64
505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LINUX -DSPEC_LP64

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Base Portability Flags (Continued)

531.deepsjeng_r: `-DSPEC_LP64`
541.leela_r: `-DSPEC_LP64`
557.xz_r: `-DSPEC_LP64`

Base Optimization Flags

C benchmarks:

502.gcc_r: `-std=c99 -O3 -flto -fno-strict-aliasing -fgnu89-inline`

505.mcf_r: `Same as 502.gcc_r`

557.xz_r: `Same as 502.gcc_r`

C++ benchmarks:
`-std=c++03 -O3 -flto`

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