SPEC CPU®2017 Integer Speed Result

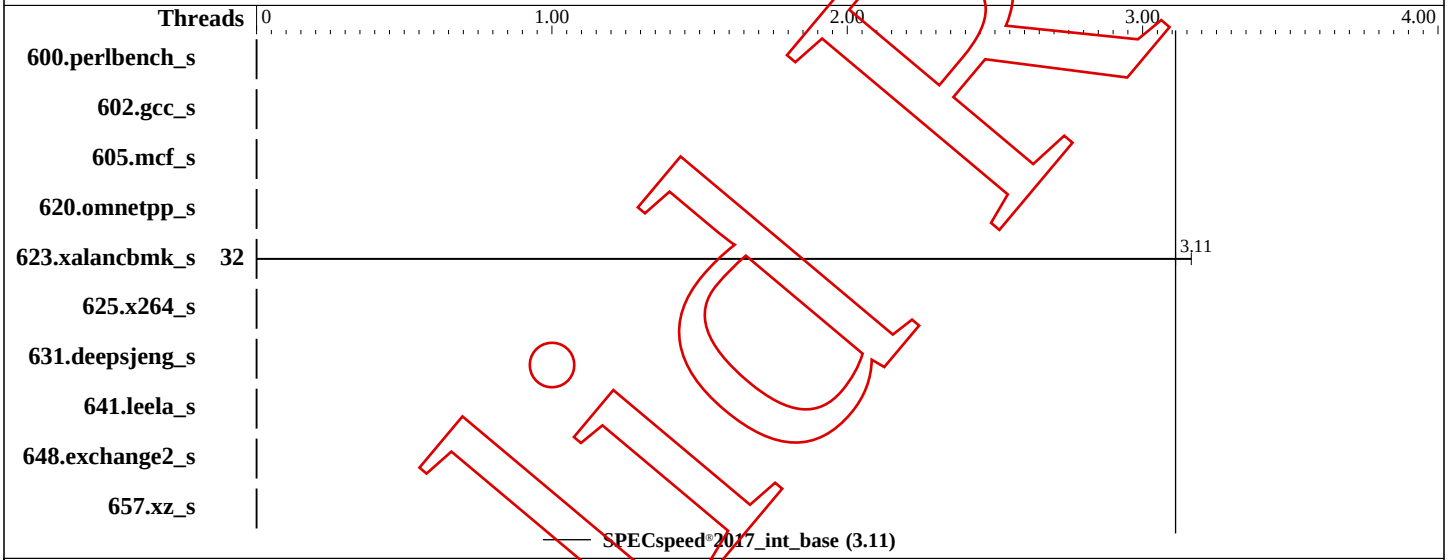
My Corporation

SPECspeed®2017_int_base = 3.11

SPECspeed®2017_int_peak = Not Run

CPU2017 License: nnn (Your SPEC license number)
Test Sponsor: My Corporation
Tested by: My Corporation

Test Date: Oct-2021
Hardware Availability:
Software Availability:



Hardware

CPU Name: AMD Ryzen Threadripper PRO 3955WX 16-Cores
Max MHz:
Nominal:
Enabled: cores, 1 chip, threads/core
Orderable:
Cache L1:
L2:
L3:
Other:
Memory: 31.188 GB fixme: If using DDR4, the format is: 'N GB (N x N GB nRxn PC4-nnnnX-X)'
Storage: 6.9 TB add more disk info here
Other:

Software

OS: Ubuntu 20.04.2 LTS 5.10.0-1044-oem
Compiler: C/C++/Fortran: Version 9.3.0 (Ubuntu 9.3.0-17ubuntu1~20.04) of GCC, the GNU Compiler Collection
Parallel: No
Firmware:
File System: nfs
System State: Run level 5 (add definition here)
Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other:
Power Management: --

Errors

'reportable' flag not set during run
602.gcc_s (base) did not have enough runs!
625.x264_s (base) did not have enough runs!
600.perlbench_s (base) did not have enough runs!
641.leela_s (base) did not have enough runs!
648.exchange2_s (base) did not have enough runs!
605.mcf_s (base) did not have enough runs!
631.deepsjeng_s (base) did not have enough runs!
620.omnetpp_s (base) did not have enough runs!
657.xz_s (base) did not have enough runs!
Unknown flags were used! See

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Errors (Continued)

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

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s														
602.gcc_s														
605.mcf_s														
620.omnetpp_s														
623.xalancbmk_s	32	**455**	**3.11**	448	3.16									
625.x264_s														
631.deepsjeng_s														
641.leela_s														
648.exchange2_s														
657.xz_s														

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

Submit Notes

```
The config file option 'submit' was used.
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH =
      "/u/home/hettwer/toolchains/rv64g/lib64/:/u/home/hettwer/toolchains/rv64
      g/lib/:/lib64"
```

Platform Notes

```
Sysinfo program /u/home/hettwer/cpu2017/bin/sysinfo
Rev: r6365 of 2019-08-21 295195f888a3d7edb1e6e46a485a0011
running on time-x Thu Oct 14 17:47:46 2021

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
```

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Platform Notes (Continued)

```
From /proc/cpuinfo
   model name : AMD Ryzen Threadripper PRO 3955WX 16-Cores
      1  "physical id"s (chips)
      32 "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 : 16
      siblings  : 32
      physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

From lscpu:
     Architecture:                    x86_64
     CPU op-mode(s):                  32-bit, 64-bit
     Byte Order:                      Little Endian
     Address sizes:                   43 bits physical, 48 bits virtual
     CPU(s):                          32
     On-line CPU(s) list:             0-31
     Thread(s) per core:              2
     Core(s) per socket:              16
     Socket(s):                       1
     NUMA node(s):                    1
     Vendor ID:                       AuthenticAMD
     CPU family:                      23
     Model:                           49
     Model name:                      AMD Ryzen Threadripper PRO 3955WX 16-Cores
     Stepping:                        0
     Frequency boost:                 enabled
     CPU MHz:                         2395.965
     CPU max MHz:                     4402.7339
     CPU min MHz:                     2200.0000
     BogoMIPS:                        7785.19
     Virtualization:                  AMD-V
     L1d cache:                       512 KiB
     L1i cache:                       512 KiB
     L2 cache:                        8 MiB
     L3 cache:                        64 MiB
     NUMA node0 CPU(s):               0-31
     Vulnerability Itlb multihit:     Not affected
     Vulnerability L1tf:              Not affected
     Vulnerability Mds:               Not affected
     Vulnerability Meltdown:          Not affected
     Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via
     prctl and seccomp
     Vulnerability Spectre v1:        Mitigation; usercopy/swapgs barriers and __user
     pointer sanitization
     Vulnerability Spectre v2:        Mitigation; Full AMD retpoline, IBPB conditional,
```

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Platform Notes (Continued)

```
      STIBP conditional, RSB filling
      Vulnerability Srbds:            Not affected
      Vulnerability Tsx async abort:  Not affected
      Flags:                          fpu vme de pse tsc msr pae mce cx8 apic sep mtrr
      pge mca cmov pat pse36 clflush mmx fxsr sse sse2 ht syscall nx mmxext fxsr_opt
      pdpe1gb rdtscp lm constant_tsc rep_good nopl nonstop_tsc cpuid extd_apicid
      aperfmperf pni pclmulqdq monitor ssse3 fma cx16 sse4_1 sse4_2 movbe popcnt aes xsave
      avx f16c rdrand lahf_lm cmp_legacy svm extapic cr8_legacy abm sse4a misalignsse
      3dnowprefetch osvw ibs skinit wdt tce topoext perfctr_core perfctr_nb bpext
      perfctr_llc mwaitx cpb cat_l3 cdp_l3 hw_pstate sme ssbd mba sev ibpb stibp vmmcall
      sev_es fsgsbase bmi1 avx2 smep bmi2 cqm rdt_a rdseed adx smap clflushopt clwb sha_ni
      xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local
      clzero irperf xsaveerptr rdpru wbnoinvd arat npt lbrv svm_lock nrip_save tsc_scale
      vmcb_clean flushbyasid decodeassists pausefilter pfthreshold avic v_vmsave_vmload
      vgif umip rdpid overflow_recov succor smca

  /proc/cpuinfo cache data
     cache size : 512 KB

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

  From /proc/meminfo
     MemTotal:       32703484 kB
     HugePages_Total:       0
     Hugepagesize:       2048 kB

  /usr/bin/lsb_release -d
     Ubuntu 20.04.2 LTS

  From /etc/*release* /etc/*version*
     debian_version: bullseye/sid
     os-release:
        NAME="Ubuntu"
        VERSION="20.04.2 LTS (Focal Fossa)"
        ID=ubuntu
        ID_LIKE=debian
        PRETTY_NAME="Ubuntu 20.04.2 LTS"
        VERSION_ID="20.04"
        HOME_URL="https://www.ubuntu.com/"
        SUPPORT_URL="https://help.ubuntu.com/"

  uname -a:
     Linux time-x 5.10.0-1044-oem #46-Ubuntu SMP Wed Aug 11 09:50:57 UTC 2021 x86_64 x86_64
     x86_64 GNU/Linux

  Kernel self-reported vulnerability status:
```

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Platform Notes (Continued)

```
 itlb_multihit:                          Not affected
 CVE-2018-3620 (L1 Terminal Fault):      Not affected
 Microarchitectural Data Sampling:       Not affected
 CVE-2017-5754 (Meltdown):               Not affected
 CVE-2018-3639 (Speculative Store Bypass): Mitigation: Speculative Store Bypass disabled
                                         via prctl and seccomp
 CVE-2017-5753 (Spectre variant 1):      Mitigation: usercopy/swapgs barriers and __user
                                         pointer sanitization
 CVE-2017-5715 (Spectre variant 2):      Mitigation: Full AMD retpoline, IBPB:
                                         conditional, STIBP: conditional, RSB filling
 srbds:                                  Not affected
 tsx_async_abort:                        Not affected

 run-level 5 Aug 26 10:31

 SPEC is set to: /u/home/hettwer/cpu2017
    Filesystem                                     Type  Size  Used Avail Use% Mounted
    on
    nasil10.informatik.tu-muenchen.de:/srv/il10/home nfs   6.9T  5.4T  1.3T  82% /u/home

 From /sys/devices/virtual/dmi/id
     BIOS:    LENOVO S07KT1FA 05/19/2021
     Vendor:  LENOVO
     Product Family: ThinkStation P620

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

 (End of data from sysinfo program)
```

Compiler Version Notes

```
==============================================================================
C++ | 623.xalancbmk_s(base)
------------------------------------------------------------------------------
Using built-in specs.
COLLECT_GCC=/u/home/hettwer/toolchains/rv64g/bin/riscv64-unknown-linux-gnu-g++
COLLECT_LTO_WRAPPER=/u/home/hettwer/toolchains/rv64g/libexec/gcc/riscv64-unknown-linux-gnu/11.1.0/lto-wrapper
Target: riscv64-unknown-linux-gnu
Configured with:
  /u/home/hettwer/build-rv64g/../riscv-gnu-toolchain/riscv-gcc/configure
  --target=riscv64-unknown-linux-gnu
  --prefix=/u/home/hettwer/toolchains/rv64g
  --with-sysroot=/u/home/hettwer/toolchains/rv64g/sysroot --with-system-zlib
  --enable-shared --enable-tls --enable-languages=c,c++,fortran
```


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Compiler Version Notes (Continued)

```
  --disable-libmudflap --disable-libssp --disable-libquadmath
  --disable-libsanitizer --disable-nls --disable-bootstrap
  --src=../../riscv-gnu-toolchain/riscv-gcc --disable-multilib
  --with-abi=lp64d --with-arch=rv64imafdc --with-tune=rocket
  'CFLAGS_FOR_TARGET=-O2   -mcmodel=medlow' 'CXXFLAGS_FOR_TARGET=-O2
  -mcmodel=medlow'
Thread model: posix
Supported LTO compression algorithms: zlib
gcc version 11.1.0 (GCC)
------------------------------------------------------------------------------
```

Base Unknown Flags

623.xalancbmk_s: "/u/home/hettwer/toolchains/rv64g/bin/riscv64-unknown-linux-gnu-" (in CXX)
"/u/home/hettwer/toolchains/rv64g/bin/riscv64-unknown-linux-gnu-" (in LD)
"-fcommon -static" (in OPTIMIZE)
"-fno-openmp" (in EXTRA_OPTIMIZE)

Base Runtime Environment

C++ benchmarks:

623.xalancbmk_s: No flags used

Base Compiler Invocation

C++ benchmarks:

623.xalancbmk_s: g++

Base Portability Flags

623.xalancbmk_s: -DSPEC_LINUX -DSPEC_LP64

Base Optimization Flags

C++ benchmarks:

623.xalancbmk_s: `-std=c++03 -O3 -fno-unsafe-math-optimizations -DSPEC_SUPPRESS_OPENMP`

Base Other Flags

C++ benchmarks:

623.xalancbmk_s: `No flags used`

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

Tested with SPEC CPU®2017 v1.1.0 on 2021-10-14 17:47:45+0200.
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