

SPEC CPU®2017 Integer Speed Result

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My Corporation

SPECSpeed®2017_int_base = 2.03

SPECSpeed®2017_int_peak = Not Run

CPU2017 License: nnn (Your SPEC license number)

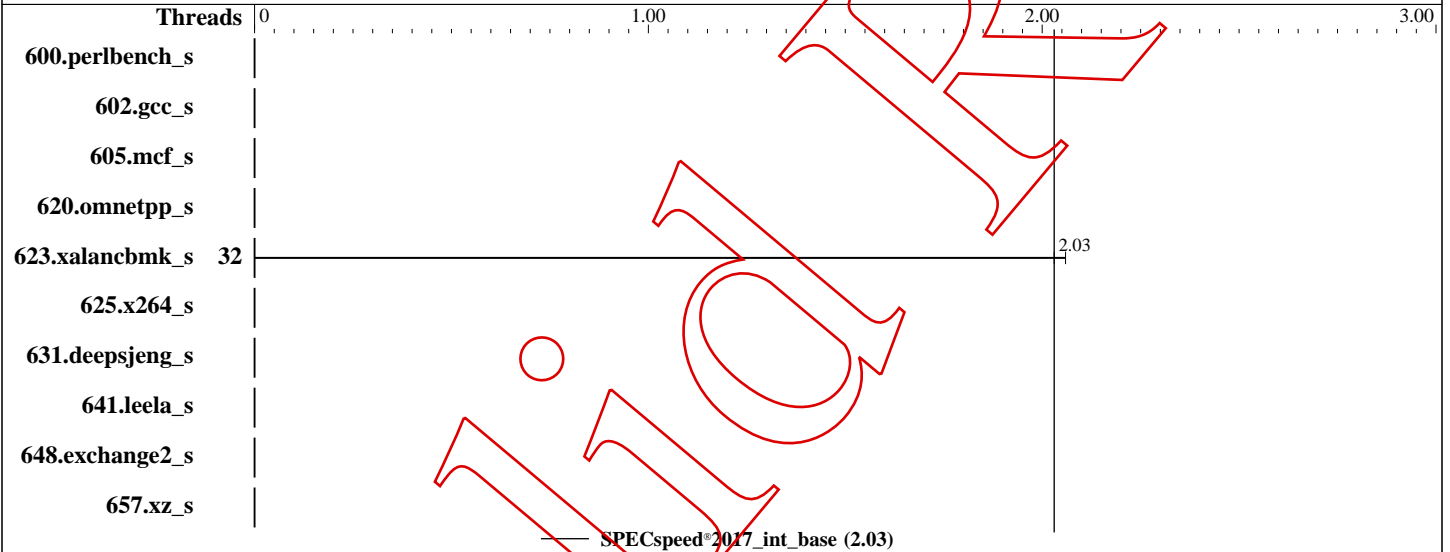
Test Sponsor: My Corporation

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-xxxxX-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
657.xz_s (base) did not have enough runs!
602.gcc_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!
648.exchange2_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!
625.x264_s (base) did not have enough runs!
605.mcf_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	Seconds	Ratio
600.perlbench_s																
602.gcc_s																
605.mcf_s																
620.omnetpp_s																
623.xalancbmk_s	32	698	2.03	688	2.06											
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 295195f888a3d7edble6e46a485a0011
running on time-x Thu Oct 14 18:05:10 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: 1931.970

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
aperfperf 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 vmcall
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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Software Availability:

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
nasill0.informatik.tu-muenchen.de:/srv/ill10/home nfs 6.9T 5.4T 1.3T 82% /u/home

From /sys/devices/virtual/dmideid
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-lsanitizer --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 -mmodel=medlow' 'CXXFLAGS_FOR_TARGET=-O2
-mmodel=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

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Software Availability:

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

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

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