SPEC® CPU2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

My Corporation
(Test Sponsor: Intel Corporation)

SPECspeed2017_int_base = 1.23

SPECspeed2017_int_peak = Not Run

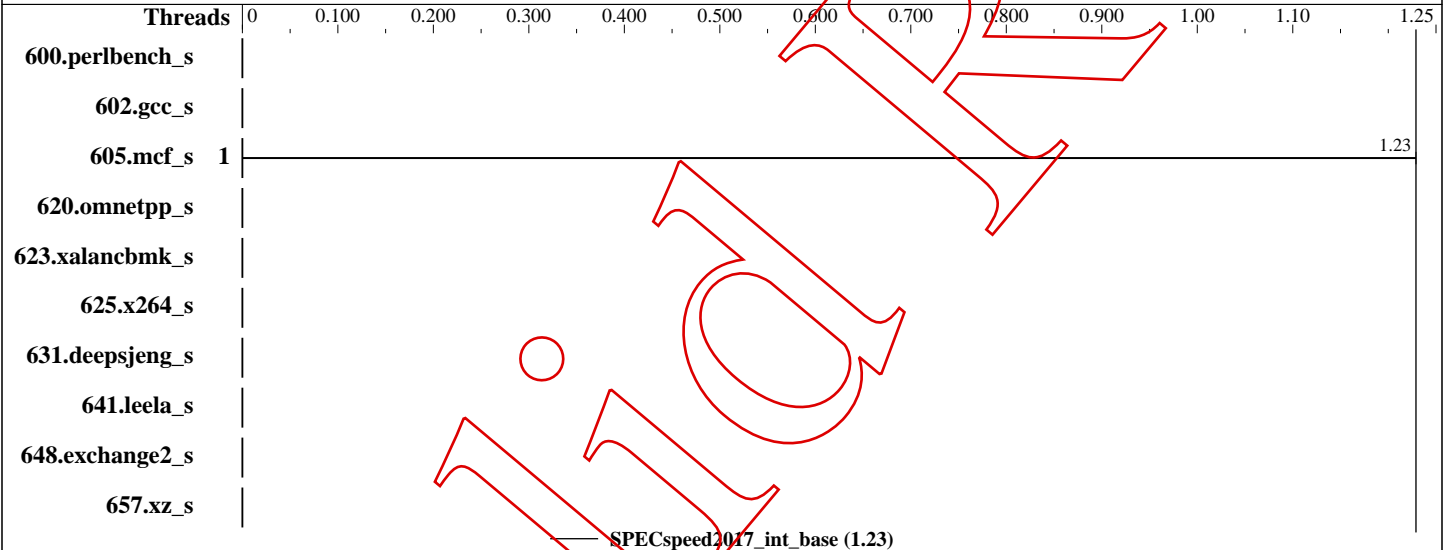|			
CPU2017 License: 13		**Test Date:**	May-2020
Test Sponsor:	Intel Corporation	**Hardware Availability:**	
Tested by:	Intel Corporation	**Software Availability:**	Sep-2017

SPECspeed2017_int_base (1.23)

Hardware

CPU Name: Genuine Intel 0000
 Max MHz.:
 Nominal:
Enabled: cores, 1 chip, threads/core
Orderable:
Cache L1:
 L2:
 L3:
 Other:
Memory: 15.428 GB fixme: If using DDR3, format is:
 'N GB (M x N GB nRxn PCn-nnnnnR-n, ECC)'
Storage: 891 GB add more disk info here
Other:

Software

OS: Fedora release 32 (Thirty Two)
 5.7.0-0.rc6.1.1.cet.fc32.x86_64
Compiler: C/C++: Version 8.1.0 of GNU C/C++
 Compiler for Linux;
 Fortran: Version 8.1.0 of GNU Fortran
 Compiler for Linux
Parallel: No
Firmware: --
File System: ext4
System State: Run level 3 (add definition here)
Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other: --

Errors

'reportable' flag not set during run
625.x264_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!
605.mcf_s (base) did not have enough runs!
657.xz_s (base) did not have enough runs!
631.deepsjeng_s (base) did not have enough runs!
623.xalancbmk_s (base) did not have enough runs!
641.leela_s (base) did not have enough runs!
602.gcc_s (base) did not have enough runs!

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Errors (Continued)

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	Threads	Base Seconds	Base Ratio	Base Seconds	Base Ratio	Base Seconds	Base Ratio	Peak Threads	Peak Seconds	Peak Ratio	Peak Seconds	Peak Ratio	Peak Seconds	Peak Ratio
600.perlbench_s														
602.gcc_s														
605.mcf_s	1	**3841**	**1.23**											
620.omnetpp_s														
623.xalancbmk_s														
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.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

General Notes

Environment variables set by runcpu before the start of the run:
KMP_AFFINITY = "granularity=fine,compact"
LD_LIBRARY_PATH = "/home/ucsd/SpectreSandboxing/spec2017/lib/ia32:/home/ucsd/SpectreSandboxing/spec2017/lib/intel64"
OMP_STACKSIZE = "192M"

Binaries compiled on a system with Intel(R) Core(TM) i9-7900X CPU + 32GB RAM
memory using Redhat Enterprise Linux 7.5
Transparent Huge Pages enabled by default

Platform Notes

Sysinfo program /home/ucsd/SpectreSandboxing/spec2017/bin/sysinfo
Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f
running on tigerlake1-ravi Tue May 26 21:57:22 2020

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Platform Notes (Continued)

```
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 : Genuine Intel(R) CPU 0000 @ 2.30GHz
      1  "physical id"s (chips)
      8 "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 : 4
      siblings  : 8
      physical 0: cores 0 1 2 3

From lscpu:
      Architecture:                    x86_64
      CPU op-mode(s):                  32-bit, 64-bit
      Byte Order:                      Little Endian
      Address sizes:                   39 bits physical, 48 bits virtual
      CPU(s):                          8
      On-line CPU(s) list:             0-7
      Thread(s) per core:              2
      Core(s) per socket:              4
      Socket(s):                       1
      NUMA node(s):                    1
      Vendor ID:                       GenuineIntel
      CPU family:                      6
      Model:                           140
      Model name:                      Genuine Intel(R) CPU 0000 @ 2.30GHz
      Stepping:                        0
      CPU MHz:                         1752.334
      CPU max MHz:                     4200.0000
      CPU min MHz:                     400.0000
      BogoMIPS:                        4608.00
      Virtualization:                  VT-x
      L1d cache:                       192 KiB
      L1i cache:                       128 KiB
      L2 cache:                        5 MiB
      L3 cache:                        12 MiB
      NUMA node0 CPU(s):               0-7
      Vulnerability Itlb multihit:     KVM: Mitigation: Split huge pages
      Vulnerability L1tf:              Not affected
      Vulnerability Mds:               Vulnerable: Clear CPU buffers attempted, no
      microcode; SMT vulnerable
      Vulnerability Meltdown:          Not affected
      Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via
      prctl and seccomp
```

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Platform Notes (Continued)

```
    Vulnerability Spectre v1:        Mitigation; usercopy/swapgs barriers and __user
    pointer sanitization
    Vulnerability Spectre v2:        Mitigation; Enhanced IBRS, IBPB conditional, RSB
    filling
    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 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 pcid sse4_1 sse4_2 x2apic movbe popcnt
    tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault
    epb invpcid_single ssbd ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority
    ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid avx512f
    avx512dq rdseed adx smap avx512ifma clflushopt clwb intel_pt avx512cd sha_ni
    avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves dtherm ida arat pln pts hwp
    hwp_notify hwp_act_window hwp_epp hwp_pkg_req avx512vbmi umip pku ospke avx512_vbmi2
    shstk gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq rdpid
    movdiri movdir64b fsrm avx512_vp2intersect ibt flush_l1d arch_capabilities

  /proc/cpuinfo cache data
    cache size : 12288 KB

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

  From /proc/meminfo
    MemTotal:       16177588 kB
    HugePages_Total:       0
    Hugepagesize:       2048 kB

  From /etc/*release* /etc/*version*
    fedora-release: Fedora release 32 (Thirty Two)
    os-release:
      NAME=Fedora
      VERSION="32 (Workstation Edition)"
      ID=fedora
      VERSION_ID=32
      VERSION_CODENAME=""
      PLATFORM_ID="platform:f32"
      PRETTY_NAME="Fedora 32 (Workstation Edition)"
      ANSI_COLOR="0;34"
    redhat-release: Fedora release 32 (Thirty Two)
    system-release: Fedora release 32 (Thirty Two)
    system-release-cpe: cpe:/o:fedoraproject:fedora:32

  uname -a:
    Linux tigerlake1-ravi 5.7.0-0.rc6.1.1.cet.fc32.x86_64 #1 SMP Mon May 18 17:21:34 PDT
```

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Platform Notes (Continued)

```
    2020 x86_64 x86_64 x86_64 GNU/Linux

 run-level 3 May 24 15:05

 SPEC is set to: /home/ucsd/SpectreSandboxing/spec2017
    Filesystem                              Type  Size  Used Avail Use% Mounted on
    /dev/mapper/fedora_localhost--live-home ext4  391G  127G  244G  35% /home

 Additional information from dmidecode follows.  WARNING: Use caution when you interpret
 this section. The 'dmidecode' program reads system data which is "intended to allow
 hardware to be accurately determined", but the intent may not be met, as there are
 frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

 (End of data from sysinfo program)
```

Compiler Version Notes

```
==============================================================================
 CC  605.mcf_s(base)
------------------------------------------------------------------------------
clang version 10.0.0 (https://github.com/llvm/llvm-project
  d32170dbd5b0d54436537b6b75beaf44324e0c28)
Target: wasm32-unknown-wasi
Thread model: posix
InstalledDir: /opt/wasi-sdk/bin
------------------------------------------------------------------------------
```

Base Unknown Flags

```
605.mcf_s:"/opt/wasi-sdk/bin/clang --sysroot
/opt/wasi-sdk/share/wasi-sysroot -Wl,--export-all
-I/opt/wasi-sdk/lib/clang/10.0.0/include/ARRAY(0x89ef938)
"/opt/wasi-sdk/bin/clang --sysroot
/opt/wasi-sdk/share/wasi-sysroot -Wl,--export-all
-I/opt/wasi-sdk/lib/clang/10.0.0/include/ARRAY(0x89c65f0)
"-O2ARRAY(0x8a0b780)
```

Base Runtime Environment

C benchmarks:

  605.mcf_s: No flags used

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Base Compiler Invocation

C benchmarks:

605.mcf_s: `No flags used`

Base Portability Flags

605.mcf_s: `-DSPEC_LP64`

Base Optimization Flags

C benchmarks:

605.mcf_s: `-Wl,-z,muldefs -fno-strict-aliasing -DSPEC_SUPPRESS_OPENMP`

Base Other Flags

C benchmarks:

605.mcf_s: `No flags used`

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

Tested with SPEC CPU2017 v1.0.2 on 2020-05-26 21:57:22-0700.
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