

SPEC® CPU2017 Integer Speed Result

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My Corporation

(Test Sponsor: Intel Corporation)

SPECSpeed2017_int_base = 5.40

SPECSpeed2017_int_peak = Not Run

CPU2017 License: 13

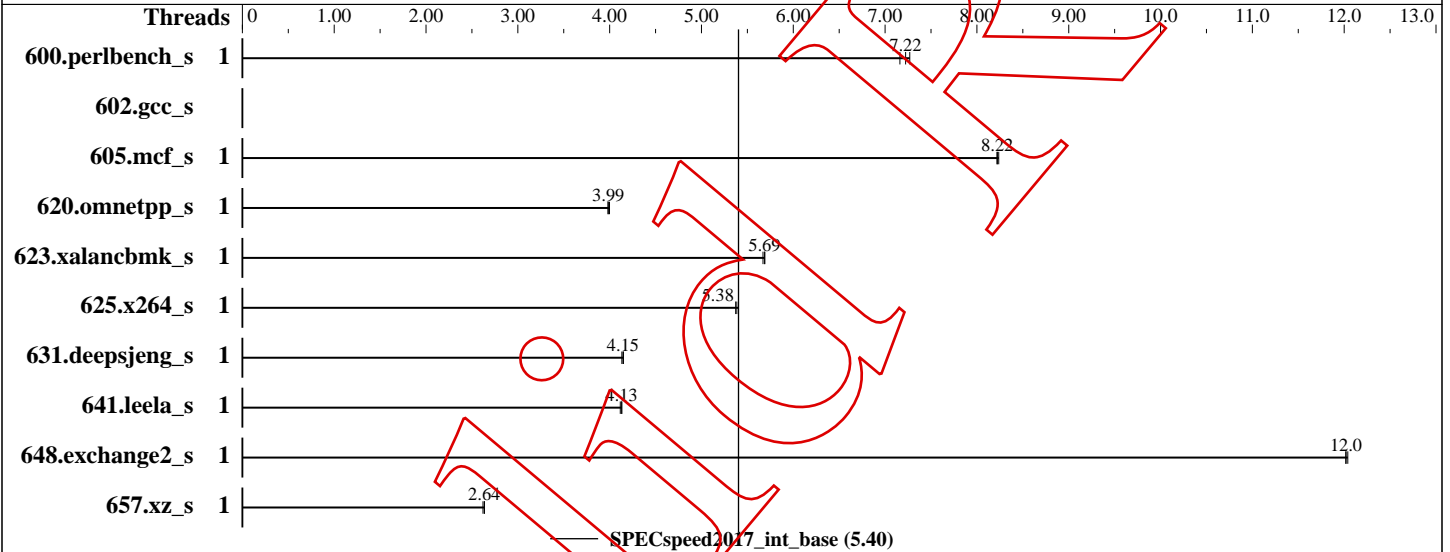
Test Sponsor: Intel Corporation

Tested by: Intel Corporation

Test Date: Apr-2020

Hardware Availability:

Software Availability: Sep-2017



Hardware

CPU Name: Genuine Intel 0000
Max MHz.:
Nominal:
Enabled: cores, 1 chip, threads/core
Orderable:
Cache L1:
L2:
L3:
Other:
Memory: 15.431 GB fixme: If using DDR3, format is:
'N GB (M x N GB nRxn PCn-nnnnnR-n, ECC)'
Storage: 391 GB add more disk info here
Other:

Software

OS: Fedora release 31 (Thirty One)
5.5.0-cet+
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: Yes
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
602.gcc_s (base) did not have enough runs!
Unknown flags were used! See
<https://www.spec.org/cpu2017/Docs/runcpu.html#flagsurl>
for information about how to get rid of this error.

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Results Table

Benchmark	Base								Peak							
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	1	248	7.16	<u>246</u>	<u>7.22</u>	244	7.27									
602.gcc_s																
605.mcf_s	1	574	8.22	<u>574</u>	<u>8.22</u>	573	8.24									
620.omnetpp_s	1	410	3.98	408	4.00	<u>409</u>	<u>3.99</u>									
623.xalancbmk_s	1	<u>249</u>	<u>5.69</u>	249	5.69	250	5.67									
625.x264_s	1	327	5.40	328	5.37	<u>328</u>	<u>5.38</u>									
631.deepsjeng_s	1	347	4.13	<u>345</u>	4.15	<u>346</u>	<u>4.15</u>									
641.leela_s	1	413	4.13	<u>413</u>	<u>4.13</u>	415	4.12									
648.exchange2_s	1	244	12.0	<u>245</u>	<u>12.0</u>	245	12.0									
657.xz_s	1	<u>2346</u>	<u>2.64</u>	2345	2.64	2359	2.62									

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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/rlsahita/spec2017/lib/ia32:/home/rlsahita/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/rlsahita/spec2017/bin/sysinfo

Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f

running on tigerlakes-ravi Sun Apr 12 05:19:49 2020

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"

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Platform Notes (Continued)

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:                2074.920
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
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
```

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Platform Notes (Continued)

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 avx512_vp2intersect ibt flush_lld 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: 16180852 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

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

fedora-release: Fedora release 31 (Thirty One)

os-release:

NAME=Fedora
VERSION="31 (Workstation Edition)"
ID=fedora
VERSION_ID=31
VERSION_CODENAME=""
PLATFORM_ID="platform:f31"
PRETTY_NAME="Fedora 31 (Workstation Edition)"
ANSI_COLOR="0;34"

redhat-release: Fedora release 31 (Thirty One)

system-release: Fedora release 31 (Thirty One)

system-release-cpe: cpe:/o:fedoraproject:fedora:31

uname -a:

Linux tigerlakel-ravi 5.5.0-cet+ #2 SMP Tue Feb 4 10:34:12 PST 2020 x86_64 x86_64
x86_64 GNU/Linux

run-level 3 Mar 10 17:08

SPEC is set to: /home/rlsahita/spec2017

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/mapper/fedora_localhost--live-home	ext4	391G	54G	318G	15%	/home

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Platform Notes (Continued)

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

=====

FC 648.exchange2_s(base)

GNU Fortran (GCC) 9.2.1 20200123 (Red Hat 9.2.1-3)

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CXXC 620.omnetpp_s(base) 623.xalancbmk_s(base) 631.deepsjeng_s(base)
641.leela_s(base)

g++ (GCC) 9.2.1 20200123 (Red Hat 9.2.1-3)

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=====

CC 600.perlbench_s(base) 605.mcf_s(base) 625.x264_s(base) 657.xz_s(base)

gcc (GCC) 9.2.1 20200123 (Red Hat 9.2.1-3)

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Base Unknown Flags

600.perlbench_s: "-I/include -I/usr/includeARRAY(0x8e00e38)

"-I/include -I/usr/includeARRAY(0x8def918)

"-fcf-protection=branchARRAY(0x8e05218)

605.mcf_s: "-I/include -I/usr/includeARRAY(0x8df9800)

"-I/include -I/usr/includeARRAY(0x8e05230)

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Base Unknown Flags (Continued)

605.mcf_s (continued):

"-fcf-protection=branchARRAY(0x8e0ce40)

620.omnetpp_s: "-I/include -I/usr/includeARRAY(0x8df9458)

"-I/include -I/usr/includeARRAY(0x8e052f0)

"-fcf-protection=branchARRAY(0x8f21d40)

623.xalancbmk_s: "-I/include -I/usr/includeARRAY(0x8dff808)

"-I/include -I/usr/includeARRAY(0x8e05530)

"-fcf-protection=branchARRAY(0x8ea1288)

625.x264_s: "-I/include -I/usr/includeARRAY(0x8e052c0)

"-I/include -I/usr/includeARRAY(0x8e102c8)

"-fcf-protection=branchARRAY(0x8f21c80)

631.deepsjeng_s: "-I/include -I/usr/includeARRAY(0x8e051e8)

"-I/include -I/usr/includeARRAY(0x8ea1138)

"-fcf-protection=branchARRAY(0x8f22388)

641.leela_s: "-I/include -I/usr/includeARRAY(0x8e04828)

"-I/include -I/usr/includeARRAY(0x8ea1318)

"-fcf-protection=branchARRAY(0x8ea3f58)

648.exchange2_s: "-I/include -I/usr/includeARRAY(0x8f233a0)

"-I/include -I/usr/includeARRAY(0x8e1ebb0)

"-fcf-protection=branchARRAY(0x8ea4ae0)

657.xz_s: "-I/include -I/usr/includeARRAY(0x8ea10c0)

"-I/include -I/usr/includeARRAY(0x8ea1930)

"-fcf-protection=branchARRAY(0x8f528b8)

Base Compiler Invocation

C benchmarks (except as noted below):

gcc

C++ benchmarks:

g++

Fortran benchmarks:

gfortran

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Base Portability Flags

600.perlbench_s: -DSPEC_LINUX_X64 -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -DSPEC_LINUX -DSPEC_LP64
625.x264_s: -DSPEC_LP64
631.deepsjeng_s: -DSPEC_LP64
641.leela_s: -DSPEC_LP64
648.exchange2_s: -DSPEC_LP64
657.xz_s: -DSPEC_LP64

Base Optimization Flags

C benchmarks:

600.perlbench_s: -m64 -std=c99 -Wl,-z,muldefs -O2 -fno-strict-aliasing
-fopenmp -DSPEC_OPENMP

605.mcf_s: Same as 600.perlbench_s

625.x264_s: Same as 600.perlbench_s

657.xz_s: Same as 600.perlbench_s

C++ benchmarks:

-m64 -std=c++03 -Wl,-z,muldefs -O2 -fno-strict-aliasing

Fortran benchmarks:

-m64 -O2 -fno-strict-aliasing

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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 2020-04-12 05:19:48-0700.

Report generated on 2020-04-12 09:40:52 by CPU2017 PDF formatter v5748.