# SPEC® CPU2017 Integer Speed Result

**Dell Inc.**

PowerEdge R940

(Intel Xeon Gold 6148, 2.40 GHz)

---

**SPECspeed2017_int_base** = 8.91

**SPECspeed2017_int_peak** = 9.21

---

<table>
<thead>
<tr>
<th>Threads</th>
<th>SPECspeed2017_int_base (8.91)</th>
<th>SPECspeed2017_int_peak (9.21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>600.perlbench_s 80</td>
<td><img src="chart1.png" alt="Graph" /></td>
<td><img src="chart2.png" alt="Graph" /></td>
</tr>
<tr>
<td>602.gcc_s 80</td>
<td><img src="chart3.png" alt="Graph" /></td>
<td><img src="chart4.png" alt="Graph" /></td>
</tr>
<tr>
<td>605.mcf_s 80</td>
<td><img src="chart5.png" alt="Graph" /></td>
<td><img src="chart6.png" alt="Graph" /></td>
</tr>
<tr>
<td>620.omnetpp_s 80</td>
<td><img src="chart7.png" alt="Graph" /></td>
<td><img src="chart8.png" alt="Graph" /></td>
</tr>
<tr>
<td>623.xalancbmk_s 80</td>
<td><img src="chart9.png" alt="Graph" /></td>
<td><img src="chart10.png" alt="Graph" /></td>
</tr>
<tr>
<td>625.x264_s 80</td>
<td><img src="chart11.png" alt="Graph" /></td>
<td><img src="chart12.png" alt="Graph" /></td>
</tr>
<tr>
<td>631.deepsjeng_s 80</td>
<td><img src="chart13.png" alt="Graph" /></td>
<td><img src="chart14.png" alt="Graph" /></td>
</tr>
<tr>
<td>641.leela_s 80</td>
<td><img src="chart15.png" alt="Graph" /></td>
<td><img src="chart16.png" alt="Graph" /></td>
</tr>
<tr>
<td>648.exchange2_s 80</td>
<td><img src="chart17.png" alt="Graph" /></td>
<td><img src="chart18.png" alt="Graph" /></td>
</tr>
<tr>
<td>657.xz_s 80</td>
<td><img src="chart19.png" alt="Graph" /></td>
<td><img src="chart20.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name: Intel Xeon Gold 6148</td>
<td>OS: SUSE Linux Enterprise Server 12 SP2</td>
</tr>
<tr>
<td>Max MHz.: 3700</td>
<td>4.4.21-69-default</td>
</tr>
<tr>
<td>Nominal: 2400</td>
<td>Compiler: C/C++: Version 18.0.0.128 of Intel C/C++</td>
</tr>
<tr>
<td>Enabled: 80 cores, 4 chips</td>
<td>Compiler for Linux: Fortran: Version 18.0.0.128 of Intel Fortran</td>
</tr>
<tr>
<td>Orderable: 2,4 chip</td>
<td>Compiler for Linux:</td>
</tr>
<tr>
<td>Cache L1: 32 KB I + 32 KB D on chip per core</td>
<td>Parallel: Yes</td>
</tr>
<tr>
<td>L2: 1 MB I+D on chip per core</td>
<td>Firmware: Version 1.1.7 released Sep-2017</td>
</tr>
<tr>
<td>L3: 27.5 MB I+D on chip per chip</td>
<td>File System: xfs</td>
</tr>
<tr>
<td>Other: None</td>
<td>System State: Run level 3 (multi-user)</td>
</tr>
<tr>
<td>Memory: 768 GB (48 x 16 GB 2Rx8 PC4-2666V-R)</td>
<td>Base Pointers: 64-bit</td>
</tr>
<tr>
<td>Storage: 1 x 900 GB 15K RPM SAS12</td>
<td>Peak Pointers: 32/64-bit</td>
</tr>
<tr>
<td>Other: None</td>
<td>Other: jemalloc: jemalloc memory allocator library V5.0.1;</td>
</tr>
<tr>
<td></td>
<td>jemalloc: configured and built at default for 32bit (i686) and 64bit (x86_64) targets;</td>
</tr>
<tr>
<td></td>
<td>jemalloc: built with the RedHat Enterprise 7.4, and the system compiler gcc 4.8.5;</td>
</tr>
<tr>
<td></td>
<td>jemalloc: sources available from jemalloc.net or releases</td>
</tr>
</tbody>
</table>
### SPEC CPU2017 Integer Speed Result

#### Dell Inc.

**PowerEdge R940**  
(Intel Xeon Gold 6148, 2.40 GHz)

**SPECspeed2017_int_base** = 8.91  
**SPECspeed2017_int_peak** = 9.21

---

### Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Base</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Peak</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>600.perlbench_s</td>
<td>80</td>
<td>287</td>
<td>6.19</td>
<td>287</td>
<td>6.19</td>
<td>293</td>
<td>6.05</td>
<td>80</td>
<td>241</td>
<td>7.37</td>
<td>244</td>
<td>7.29</td>
<td>241</td>
<td>7.38</td>
<td></td>
</tr>
<tr>
<td>605.mcf_s</td>
<td>80</td>
<td>427</td>
<td>11.1</td>
<td>432</td>
<td>10.9</td>
<td>428</td>
<td>11.0</td>
<td>80</td>
<td>428</td>
<td>11.0</td>
<td>433</td>
<td>10.9</td>
<td>429</td>
<td>11.0</td>
<td></td>
</tr>
<tr>
<td>620.omnetpp_s</td>
<td>80</td>
<td>245</td>
<td>6.66</td>
<td>256</td>
<td>6.38</td>
<td>255</td>
<td>6.40</td>
<td>80</td>
<td>242</td>
<td>6.74</td>
<td>249</td>
<td>6.54</td>
<td>240</td>
<td>6.80</td>
<td></td>
</tr>
<tr>
<td>623.xalanchmk_s</td>
<td>80</td>
<td>149</td>
<td>9.49</td>
<td>149</td>
<td>9.49</td>
<td>149</td>
<td>9.50</td>
<td>80</td>
<td>139</td>
<td>10.2</td>
<td>140</td>
<td>10.1</td>
<td>141</td>
<td>10.1</td>
<td></td>
</tr>
<tr>
<td>625.x264_s</td>
<td>80</td>
<td>150</td>
<td>11.8</td>
<td>149</td>
<td>11.8</td>
<td>149</td>
<td>11.8</td>
<td>80</td>
<td>149</td>
<td>11.8</td>
<td>150</td>
<td>11.8</td>
<td>150</td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>631.deepsjeng_s</td>
<td>80</td>
<td>285</td>
<td>5.03</td>
<td>286</td>
<td>5.01</td>
<td>286</td>
<td>5.01</td>
<td>80</td>
<td>287</td>
<td>5.00</td>
<td>287</td>
<td>5.00</td>
<td>287</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>641.leela_s</td>
<td>80</td>
<td>394</td>
<td>4.33</td>
<td>394</td>
<td>4.33</td>
<td>394</td>
<td>4.33</td>
<td>80</td>
<td>392</td>
<td>4.35</td>
<td>392</td>
<td>4.35</td>
<td>392</td>
<td>4.35</td>
<td></td>
</tr>
<tr>
<td>648.exchange2_s</td>
<td>80</td>
<td>222</td>
<td>13.2</td>
<td>220</td>
<td>13.4</td>
<td>222</td>
<td>13.2</td>
<td>80</td>
<td>220</td>
<td>13.4</td>
<td>220</td>
<td>13.4</td>
<td>220</td>
<td>13.4</td>
<td></td>
</tr>
<tr>
<td>657.xz_s</td>
<td>80</td>
<td>258</td>
<td>24.0</td>
<td>258</td>
<td>24.0</td>
<td>258</td>
<td>24.0</td>
<td>80</td>
<td>258</td>
<td>24.0</td>
<td>258</td>
<td>24.0</td>
<td>255</td>
<td>24.3</td>
<td></td>
</tr>
</tbody>
</table>

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,scatter"
- LD_LIBRARY_PATH = "/home/cpu2017/lib/ia32:/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-32:/home/cpu2017/je5.0.1-64"
- OMP_STACKSIZE = "192M"

Binaries compiled on a system with 1x Intel Core i7-4790 CPU + 32GB RAM memory using Redhat Enterprise Linux 7.4

Transparent Huge Pages enabled by default

Prior to runcpu invocation

Filesystem page cache synced and cleared with:

```
sync; echo 3 > /proc/sys/vm/drop_caches
```

---

### Platform Notes

- BIOS settings:
  - Logical Processor Disabled
  - Virtualization Technology Disabled
  - Sub NUMA Cluster Disabled
  - System Profile set to Custom
  - CPU Performance set to Maximum Performance
  - C1E Disabled
  - C States set to Autonomous
  - Uncore Frequency set to Dynamic

(Continued on next page)
SPEC CPU2017 Integer Speed Result

Dell Inc.
PowerEdge R940
(Intel Xeon Gold 6148, 2.40 GHz)

SPECspeed2017_int_base = 8.91
SPECspeed2017_int_peak = 9.21

<table>
<thead>
<tr>
<th>CPU2017 License: 55</th>
<th>Test Date: Oct-2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Dell Inc.</td>
<td>Hardware Availability: Sep-2017</td>
</tr>
<tr>
<td>Tested by: Dell Inc.</td>
<td>Software Availability: Sep-2017</td>
</tr>
</tbody>
</table>

Platform Notes (Continued)

Memory Patrol Scrub Disabled
Energy Efficiency Policy set to Performance
CPU Interconnect Bus Link Power Management Disabled
PCI ASPM L1 Link Power Management Disabled
Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bccc091c0f
running on linux-ehog Thu Oct 19 08:32:17 2017

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 : Intel(R) Xeon(R) Gold 6148 CPU @ 2.40GHz
4 "physical id"s (chips)
80 "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 : 20
siblings : 20
physical 0: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28
physical 1: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28
physical 2: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28
physical 3: cores 0 1 2 3 4 8 9 10 11 12 16 17 18 19 20 24 25 26 27 28

From lscpu:

Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 80
On-line CPU(s) list: 0-79
Thread(s) per core: 1
Core(s) per socket: 20
Socket(s): 4
NUMA node(s): 4
Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Intel(R) Xeon(R) Gold 6148 CPU @ 2.40GHz
Stepping: 4
CPU MHz: 2394.386
BogoMIPS: 4788.77
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 28160K

(Continued on next page)
SPEC CPU2017 Integer Speed Result

Dell Inc.
PowerEdge R940
(Intel Xeon Gold 6148, 2.40 GHz)

SPECspeed2017_int_base = 8.91
SPECspeed2017_int_peak = 9.21

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Platform Notes (Continued)

NUMA node0 CPU(s): 0, 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76
NUMA node1 CPU(s): 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49, 53, 57, 61, 65, 69, 73, 77
NUMA node2 CPU(s): 2, 6, 10, 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74, 78
NUMA node3 CPU(s): 3, 7, 11, 15, 19, 23, 27, 31, 35, 39, 43, 47, 51, 55, 59, 63, 67, 71, 75, 79
Flags: fpu vme de pse tsc msr pae 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_tcb art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tcb
       aperfmperef eagerfpu pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg
       fma cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes
       xsave avx f16c rdrand lahf_lm abm 3dnowprefetch ida arat epb pni pdb dtherm intel_pt
       tpr_shadow vmmx flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2
       erms invpcid rtm cqm mpx avx512f avx512dq rdseed adx smap clflushopt clwb avx512cd
       avx512bw avx512vl xsaveopt xsaves xgetbv1 cqm_llc cqm_occup_llc

From /proc/cpuinfo cache data
    cache size : 28160 KB

From numactl --hardware WARNING: a numactl 'node' might or might not correspond to a
physical chip.
    available: 4 nodes (0-3)
    node 0 cpus: 0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76
    node 0 size: 192119 MB
    node 0 free: 191488 MB
    node 1 cpus: 1 5 9 13 17 21 25 29 33 37 41 45 49 53 57 61 65 69 73 77
    node 1 size: 193521 MB
    node 1 free: 192958 MB
    node 2 cpus: 2 6 10 14 18 22 26 30 34 38 42 46 50 54 58 62 66 70 74 78
    node 2 size: 193521 MB
    node 2 free: 192958 MB
    node 3 cpus: 3 7 11 15 19 23 27 31 35 39 43 47 51 55 59 63 67 71 75 79
    node 3 size: 193521 MB
    node 3 free: 192958 MB
    node distances:
    node 0 1 2 3
    0: 10 21 21 21
    1: 21 10 21 21
    2: 21 21 10 21
    3: 21 21 21 10

From /proc/meminfo
    MemTotal: 791225344 kB
    HugePages_Total: 0
    Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
    SUSE Linux Enterprise Server 12 SP2

(Continued on next page)
SPEC CPU2017 Integer Speed Result

Dell Inc.
PowerEdge R940
(Intel Xeon Gold 6148, 2.40 GHz)

SPECspeed2017_int_base = 8.91
SPECspeed2017_int_peak = 9.21

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Oct-2017
Hardware Availability: Sep-2017
Software Availability: Sep-2017

Platform Notes (Continued)

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

SuSE-release:
  SUSE Linux Enterprise Server 12 (x86_64)
  VERSION = 12
  PATCHLEVEL = 2
  # This file is deprecated and will be removed in a future service pack or release.
  # Please check /etc/os-release for details about this release.

os-release:
  NAME="SLES"
  VERSION="12-SP2"
  VERSION_ID="12.2"
  PRETTY_NAME="SUSE Linux Enterprise Server 12 SP2"
  ID="sles"
  ANSI_COLOR="0;32"
  CPE_NAME="cpe:/o:suse:sles:12:sp2"

uname -a:
  Linux linux-ehog 4.4.21-69-default #1 SMP Tue Oct 25 10:58:20 UTC 2016 (9464f67)
  x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Oct 19 08:31

SPEC is set to: /home/cpu2017

Filesystem Type Size Used Avail Use% Mounted on
/dev/sda4 xfs 796G 17G 779G 3% /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.

BIOS Dell Inc. 1.1.7 08/10/2017
Memory:
  48x 00AD00B300AD HMA82GR7AFR8N-VK 16 GB 2 rank 2666

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
CC  600.perlbench_s(base) 602.gcc_s(base) 605.mcf_s(base) 625.x264_s(base,peak) 657.xz_s(base)
==============================================================================
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

(Continued on next page)
Dell Inc.
PowerEdge R940
(Intel Xeon Gold 6148, 2.40 GHz)

SPEC CPU2017 Integer Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

Dell Inc.

PowerEdge R940
(Intel Xeon Gold 6148, 2.40 GHz)

SPECspeed2017_int_base = 8.91
SPECspeed2017_int_peak = 9.21

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Compiler Version Notes (Continued)

==============================================================================
CC  600.perlbench_s(peak) 602.gcc_s(peak) 605.mcf_s(peak) 657.xz_s(peak)
------------------------------------------------------------------------------
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
CXXC 620.omnetpp_s(base) 623.xalancbmk_s(base) 631.deepsjeng_s(base)
    641.leela_s(base)
------------------------------------------------------------------------------
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
CXXC 620.omnetpp_s(peak) 623.xalancbmk_s(peak) 631.deepsjeng_s(peak)
    641.leela_s(peak)
------------------------------------------------------------------------------
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
FC  648.exchange2_s(base, peak)
------------------------------------------------------------------------------
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort
SPEC CPU2017 Integer Speed Result

Dell Inc.
PowerEdge R940
(Intel Xeon Gold 6148, 2.40 GHz)

SPECspeed2017_int_base = 8.91
SPECspeed2017_int_peak = 9.21

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Oct-2017
Hardware Availability: Sep-2017
Software Availability: Sep-2017

Base Portability Flags

600.perlbench_s: -DSPEC_LP64 -DSPEC_LINUX_X64
602.gcc_s: -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -DSPEC_LP64 -DSPEC_LINUX
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:
-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP
-L/usr/local/je5.0.1-64/lib -ljemalloc

C++ benchmarks:
-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=3 -L/usr/local/je5.0.1-64/lib -ljemalloc

Fortran benchmarks:
-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=3 -nostandard-realloc-lhs -align array32byte
-L/usr/local/je5.0.1-64/lib -ljemalloc

Base Other Flags

C benchmarks:
-m64 -std=c11

C++ benchmarks:
-m64

Fortran benchmarks:
-m64
Dell Inc.
PowerEdge R940
(Intel Xeon Gold 6148, 2.40 GHz)

SPECspeed2017_int_peak = 9.21
SPECspeed2017_int_base = 8.91

CPU2017 License: 55
Test Date: Oct-2017

Test Sponsor: Dell Inc.
Hardware Availability: Sep-2017

Tested by: Dell Inc.
Software Availability: Sep-2017

Peak Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Peak Portability Flags

600.perlbench_s: -DSPEC_LP64 -DSPEC_LINUX_X64
602.gcc_s: -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -D_FILE_OFFSET_BITS=64 -DSPEC_LINUX
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

Peak Optimization Flags

C benchmarks:
600.perlbench_s: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -O2
-xCORE-AVX512 -qopt-mem-layout-trans=3 -ipo -O3
-no-prec-div -DSPEC_SUPPRESS_OPENMP -qopenmp
-DSPEC_OPENMP -fno-strict-overflow
-\L/usr/local/je5.0.1-64/lib -ljemalloc

602.gcc_s: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -O2
-xCORE-AVX512 -qopt-mem-layout-trans=3 -ipo -O3
-no-prec-div -DSPEC_SUPPRESS_OPENMP -qopenmp
-DSPEC_OPENMP -\L/usr/local/je5.0.1-64/lib -ljemalloc

605.mcf_s: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -03 -no-prec-div -qopt-mem-layout-trans=3
-DSPEC_SUPPRESS_OPENMP -qopenmp -DSPEC_OPENMP
-\L/usr/local/je5.0.1-64/lib -ljemalloc

(Continued on next page)
# SPEC CPU2017 Integer Speed Result

## Dell Inc.

**PowerEdge R940**  
(Intel Xeon Gold 6148, 2.40 GHz)

<table>
<thead>
<tr>
<th>SPECspeed2017_int_base</th>
<th>SPECspeed2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.91</td>
<td>9.21</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.

<table>
<thead>
<tr>
<th>Test Date</th>
<th>Hardware Availability</th>
<th>Software Availability</th>
</tr>
</thead>
</table>

---

### Peak Optimization Flags (Continued)

625.x264_s: `-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP -L/usr/local/je5.0.1-64/lib -ljemalloc

657.xz_s: Same as 602.gcc_s

C++ benchmarks:

620.omnetpp_s: `-Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=3 -DSPEC_SUPPRESS_OPENMP -qopenmp -DSPEC_OPENMP -L/usr/local/je5.0.1-64/lib -ljemalloc


631.deepsjeng_s: Same as 620.omnetpp_s

641.leela_s: Same as 620.omnetpp_s

Fortran benchmarks:

`-m64` `-std=c11`

### Peak Other Flags

C benchmarks:

`-m64` `-std=c11`

C++ benchmarks (except as noted below):

`-m64` `-m32`

623.xalancbmk_s: `-m32`

Fortran benchmarks:

`-m64`
SPEC CPU2017 Integer Speed Result

Dell Inc.
PowerEdge R940
(Intel Xeon Gold 6148, 2.40 GHz)

\[
\begin{align*}
\text{SPECspeed2017_int_base} & = 8.91 \\
\text{SPECspeed2017_int_peak} & = 9.21 \\
\end{align*}
\]

<table>
<thead>
<tr>
<th>CPU2017 License:</th>
<th>55</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor:</td>
<td>Dell Inc.</td>
</tr>
<tr>
<td>Tested by:</td>
<td>Dell Inc.</td>
</tr>
</tbody>
</table>

Test Date: Oct-2017
Hardware Availability: Sep-2017
Software Availability: Sep-2017

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.xml

SPEC is a registered trademark of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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 2017-10-19 11:32:17-0400.
Originally published on 2017-12-21.