Dell Inc.  

PowerEdge R650 (Intel Xeon Gold 5317, 3.00 GHz)  

**SPEC CPU®2017 Integer Speed Result**  

Copyright 2017-2021 Standard Performance Evaluation Corporation  

Dell Inc.  

**SPECspeed®2017_int_base = 11.5**  

**SPECspeed®2017_int_peak = 11.7**  

---  

**CPU2017 License:** 55  
**Test Date:** Jun-2021  
**Test Sponsor:** Dell Inc.  
**Hardware Availability:** Jun-2021  
**Tested by:** Dell Inc.  
**Software Availability:** Feb-2021  

---  

### Threads  

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>SPECspeed®2017_int_base</th>
<th>SPECspeed®2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>600.perlbench_s</td>
<td>24</td>
<td>7.28</td>
<td>8.37</td>
</tr>
<tr>
<td>602.gcc_s</td>
<td>24</td>
<td>10.6</td>
<td>11.0</td>
</tr>
<tr>
<td>605.mcf_s</td>
<td>24</td>
<td>8.31</td>
<td></td>
</tr>
<tr>
<td>620.omnetpp_s</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>623.xalanchmk_s</td>
<td>24</td>
<td>13.9</td>
<td></td>
</tr>
<tr>
<td>625.x264_s</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>631.deepsjeng_s</td>
<td>24</td>
<td>6.07</td>
<td></td>
</tr>
<tr>
<td>641.leela_s</td>
<td>24</td>
<td>4.99</td>
<td></td>
</tr>
<tr>
<td>648.exchange2_s</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>657.xz_s</td>
<td>24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---  

### Hardware  

**CPU Name:** Intel Xeon Gold 5317  
**Max MHz:** 3600  
**Nominal:** 3000  
**Enabled:** 24 cores, 2 chips  
**Orderable:** 1.2 chips  
**Cache L1:** 32 KB I + 48 KB D on chip per core  
**L2:** 1.25 MB I+D on chip per core  
**L3:** 18 MB I+D on chip per chip  
**Other:** None  
**Memory:** 512 GB (16 x 32 GB 2Rx8 PC4-3200AA-R, running at 2933)  
**Storage:** 225 GB on tmpfs  
**Other:** None  

### Software  

**OS:** Red Hat Enterprise Linux 8.3 (Ootpa)  
4.18.0-240.15.1.el8_3.x86_64  
**Compiler:** C/C++: Version 2021.1 of Intel oneAPI DPC++/C++ Compiler Build 20201113 for Linux;  
Fortran: Version 2021.1 of Intel Fortran Compiler Classic Build 20201112 for Linux;  
C/C++: Version 2021.1 of Intel C/C++ Compiler Classic Build 20201112 for Linux  
**Parallel:** Yes  
**Firmware:** Version 1.2.4 released May-2021  
**File System:** tmpfs  
**System State:** Run level 5 (graphical multi-user)  
**Base Pointers:** 64-bit  
**Peak Pointers:** 64-bit  
**Other:** jemalloc memory allocator V5.0.1  
**Power Management:** BIOS and OS set to prefer performance at the cost of additional power usage.
Dell Inc.

PowerEdge R650 (Intel Xeon Gold 5317, 3.00 GHz)

**Results Table**

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Base</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Peak</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>600.perlbench_s</td>
<td>24</td>
<td>243</td>
<td>7.29</td>
<td>244</td>
<td>7.27</td>
<td>244</td>
<td>7.28</td>
<td>212</td>
<td>8.37</td>
</tr>
<tr>
<td>602.gcc_s</td>
<td>24</td>
<td>376</td>
<td>10.6</td>
<td>373</td>
<td>10.7</td>
<td>378</td>
<td>10.5</td>
<td>363</td>
<td>11.0</td>
</tr>
<tr>
<td>605.mcf_s</td>
<td>24</td>
<td>234</td>
<td>20.2</td>
<td>233</td>
<td>20.3</td>
<td>235</td>
<td>20.1</td>
<td>234</td>
<td>20.2</td>
</tr>
<tr>
<td>620.omnetpp_s</td>
<td>24</td>
<td>197</td>
<td>8.29</td>
<td>195</td>
<td>8.38</td>
<td>196</td>
<td>8.31</td>
<td>196</td>
<td>8.31</td>
</tr>
<tr>
<td>623.xalanchmk_s</td>
<td>24</td>
<td>102</td>
<td>13.9</td>
<td>103</td>
<td>13.8</td>
<td>102</td>
<td>13.9</td>
<td>102</td>
<td>13.9</td>
</tr>
<tr>
<td>625.x264_s</td>
<td>24</td>
<td>103</td>
<td>17.1</td>
<td>103</td>
<td>17.1</td>
<td>103</td>
<td>17.2</td>
<td>98.6</td>
<td>17.9</td>
</tr>
<tr>
<td>631.deepsjeng_s</td>
<td>24</td>
<td>236</td>
<td>6.06</td>
<td>236</td>
<td>6.08</td>
<td>236</td>
<td>6.07</td>
<td>236</td>
<td>6.07</td>
</tr>
<tr>
<td>648.exchange2_s</td>
<td>24</td>
<td>148</td>
<td>19.8</td>
<td>147</td>
<td>19.9</td>
<td>147</td>
<td>19.9</td>
<td>147</td>
<td>19.9</td>
</tr>
<tr>
<td>657.xz_s</td>
<td>24</td>
<td>287</td>
<td>21.5</td>
<td>287</td>
<td>21.5</td>
<td>287</td>
<td>21.4</td>
<td>287</td>
<td>21.5</td>
</tr>
</tbody>
</table>

**SPECspeed®2017_int_base = 11.5**

**SPECspeed®2017_int_peak = 11.7**

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"

**Environment Variables Notes**

Environment variables set by runcpu before the start of the run:
- KMP_AFFINITY = "granularity=fine,scatter"
- LD_LIBRARY_PATH = "/mnt/ramdisk/cpu2017-1.1.5-ic2021.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.5-ic2021.1/je5.0.1-64"
- MALLOC_CONF = "retain:true"
- OMP_STACKSIZE = "192M"

**General Notes**

Binaries compiled on a system with 1x Intel Core i9-7980XE CPU + 64GB RAM memory using Redhat Enterprise Linux 8.0

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
```

jemalloc, a general purpose malloc implementation

built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5


NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.
General Notes (Continued)

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1) is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.

Benchmark run from a 225 GB ramdisk created with the cmd: "mount -t tmpfs -o size=225G tmpfs /mnt/ramdisk"

Platform Notes

BIOS Settings:
- Logical Processor : Disabled
- Virtualization Technology : Disabled

System Profile : Custom
- CPU Power Management : Maximum Performance
- C1E : Disabled
- C States : Autonomous
- Memory Patrol Scrub : Disabled
- Energy Efficiency Policy : Performance
- CPU Interconnect Bus Link
  - Power Management : Disabled

Sysinfo program /mnt/ramdisk/cpu2017-1.1.5-ic2021.1/bin/sysinfo
Rev: r6538 of 2020-09-24 e8664e66d2d7080afeaa89d4b38e2f1c
running on localhost.localdomain Fri Jun 4 02:59:49 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

From /proc/cpuinfo
- model name : Intel(R) Xeon(R) Gold 5317 CPU @ 3.00GHz
  2 "physical id"s (chips)
  24 "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 : 12
  - siblings : 12
  - physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11
  - physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11

From lscpu:
- Architecture: x86_64
- CPU op-mode(s): 32-bit, 64-bit
- Byte Order: Little Endian

(Continued on next page)
Dell Inc.  

PowerEdge R650 (Intel Xeon Gold 5317, 3.00 GHz)  

CPU2017 License: 55  
Test Sponsor: Dell Inc.  
Test Date: Jun-2021  
Hardware Availability: Jun-2021  
Tested by: Dell Inc.  
Software Availability: Feb-2021

**SPEC CPU®2017 Integer Speed Result**

**SPECspeed®2017_int_base = 11.5**

**SPECspeed®2017_int_peak = 11.7**

**Platform Notes (Continued)**

```
CPU(s): 24  
On-line CPU(s) list: 0-23  
Thread(s) per core: 1  
Core(s) per socket: 12  
Socket(s): 2  
NUMA node(s): 2  
Vendor ID: GenuineIntel
CPU family: 6  
Model: 106  
Model name: Intel(R) Xeon(R) Gold 5317 CPU @ 3.00GHz  
Stepping: 6  
CPU MHz: 3542.001
BogoMIPS: 6000.00  
Virtualization: VT-x
L1d cache: 48K  
L1i cache: 32K  
L2 cache: 1280K  
L3 cache: 18432K  
NUMA node0 CPU(s): 0,2,4,6,8,10,12,14,16,18,20,22  
NUMA node1 CPU(s): 1,3,5,7,9,11,13,15,17,19,21,23
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 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 abml_fbr 3dnowprefetch cpuid_fault epb cat_l3 invpcid_single intel_ppn ssbd mba ibrs ibpb stibp ibrs_enhanced fsbgbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb intel_pt avx512cd sha ni avx512bw avx512vl xsaves xsaveopt xsaves xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbb total cqm_mbb_local split_lock_detect wbinvd dtherm ida arat pln pts avx512vmbi umip pkp ospe avx512_vmbi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq 1a57 rdpid md_clear pconfig flush_l1d arch_capabilities
```

```bash
/proc/cpuinfo cache data
  cache size: 18432 KB
```

From numactl --hardware  
WARNING: a numactl 'node' might or might not correspond to a physical chip.
```bash
available: 2 nodes (0-1)
node 0 cpus: 0 2 4 6 8 10 12 14 16 18 20 22
node 0 size: 252749 MB
node 0 free: 255795 MB
node 1 cpus: 1 3 5 7 9 11 13 15 17 19 21 23
node 1 size: 253324 MB
node 1 free: 242554 MB
node distances:
```

(Continued on next page)
**SPEC CPU®2017 Integer Speed Result**

**Dell Inc.**

PowerEdge R650 (Intel Xeon Gold 5317, 3.00 GHz)

| SPECspeed®2017_int_base = 11.5 |
| SPECspeed®2017_int_peak = 11.7 |

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

| Test Date: | Jun-2021 |
| Hardware Availability: | Jun-2021 |
| Software Availability: | Feb-2021 |

---

**Platform Notes (Continued)**

```
node  0  1
  0: 10 20
  1: 20 10

From /proc/meminfo
  MemTotal:       527817296 kB
  HugePages_Total:       0
  Hugepagesize:       2048 kB

/sbin/tuned-adm active
  Current active profile: throughput-performance

From /etc/*release* /etc/*version*
  os-release:
    NAME="Red Hat Enterprise Linux"
    VERSION="8.3 (Ootpa)"
    ID="rhel"
    ID_LIKE="fedora"
    VERSION_ID="8.3"
    PLATFORM_ID="platform:el8"
    PRETTY_NAME="Red Hat Enterprise Linux 8.3 (Ootpa)"
    ANSI_COLOR="0;31"
  redhat-release: Red Hat Enterprise Linux release 8.3 (Ootpa)
  system-release: Red Hat Enterprise Linux release 8.3 (Ootpa)
  system-release-cpe: cpe:/o:redhat:enterprise_linux:8.3:ga

uname -a:
  Linux localhost.localdomain 4.18.0-240.15.1.el8_3.x86_64 #1 SMP Wed Feb 3 03:12:15 EST 2021 x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:

- **CVE-2018-12207 (iTLB Multihit):** Not affected
- **CVE-2018-3620 (L1 Terminal Fault):** Not affected
- **Microarchitectural Data Sampling:** Not affected
- **CVE-2017-5754 (Meltdown):** Mitigation: Speculative Store Bypass disabled via prctl and seccomp
- **CVE-2018-3639 (Speculative Store Bypass):** Mitigation: usercopy/swapps barriers and __user pointer sanitization
- **CVE-2017-5753 (Spectre variant 1):** Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling
- **CVE-2017-5715 (Spectre variant 2):** Not affected
- **CVE-2020-0543 (Special Register Buffer Data Sampling):** Not affected
- **CVE-2019-11135 (TSX Asynchronous Abort):** Not affected
```

(Continued on next page)
SPEC CPU®2017 Integer Speed Result

Dell Inc.

PowerEdge R650 (Intel Xeon Gold 5317, 3.00 GHz)

SPECspeed®2017_int_base = 11.5
SPECspeed®2017_int_peak = 11.7

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

Test Date: Jun-2021
Hardware Availability: Jun-2021
Software Availability: Feb-2021

Platform Notes (Continued)

run-level 5 Jun 4 02:57
SPEC is set to: /mnt/ramdisk/cpu2017-1.1.5-ic2021.1
Filesystem Type Size Used Avail Use% Mounted on
tmpfs tmpfs 225G 6.9G 219G 4% /mnt/ramdisk

From /sys/devices/virtual/dmi/id
Vendor: Dell Inc.
Product: PowerEdge R650
Product Family: PowerEdge
Serial: 1234567

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.
Memory:
7x 00AD00B300AD HMAA4GR7AJR8N-XN 32 GB 2 rank 3200, configured at 2933
9x 00AD063200AD HMAA4GR7AJR8N-XN 32 GB 2 rank 3200, configured at 2933
16x Not Specified Not Specified

BIOS:
BIOS Vendor: Dell Inc.
BIOS Version: 1.2.4
BIOS Date: 05/28/2021
BIOS Revision: 1.2

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
C     | 600.perlbench_s(peak)
==============================================================================
Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R)
64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
==============================================================================

==============================================================================
C     | 600.perlbench_s(base) 602.gcc_s(base, peak) 605.mcf_s(base, peak)
     | 625.x264_s(base, peak) 657.xz_s(base, peak)
==============================================================================
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

(Continued on next page)
Dell Inc.  

PowerEdge R650 (Intel Xeon Gold 5317, 3.00 GHz)  

<table>
<thead>
<tr>
<th>CPU2017 License: 55</th>
<th>Test Date: Jun-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Dell Inc.</td>
<td>Hardware Availability: Jun-2021</td>
</tr>
<tr>
<td>Tested by: Dell Inc.</td>
<td>Software Availability: Feb-2021</td>
</tr>
</tbody>
</table>

**SPEC CPU®2017 Integer Speed Result**

---

**Compiler Version Notes (Continued)**

```
--------------------------------------------------------------------------------
| C     | 600.perlbench_s(peak)
--------------------------------------------------------------------------------
| Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000
| Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------
| C     | 600.perlbench_s(base) 602.gcc_s(base, peak) 605.mcf_s(base, peak)
|       | 625.x264_s(base, peak) 657.xz_s(base, peak)
--------------------------------------------------------------------------------
| Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2021.1 Build 20201113
| Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------
| C++    | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base, peak)
|        | 631.deepsjeng_s(base, peak) 641.leela_s(base, peak)
--------------------------------------------------------------------------------
| Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2021.1 Build 20201113
| Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------
| Fortran | 648.exchange2_s(base, peak)
--------------------------------------------------------------------------------
| Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000
| Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------
```

---

**Base Compiler Invocation**

C benchmarks:
- icx

C++ benchmarks:
- icpx

Fortran benchmarks:
- ifort
SPEC CPU®2017 Integer Speed Result
Copyright 2017-2021 Standard Performance Evaluation Corporation

Dell Inc.
PowerEdge R650 (Intel Xeon Gold 5317, 3.00 GHz)

| SPECspeed®2017_int_peak = 11.7 |
| SPECspeed®2017_int_base = 11.5 |

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

Test Date: Jun-2021  
Hardware Availability: Jun-2021  
Software Availability: Feb-2021

---

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:
-DSPEC_OPENMP -std=c11 -m64 -fiopenmp -Wl,-z,muldefs -xCORE-AVX512
-O3 -ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -mbranches-within-32B-boundaries
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

C++ benchmarks:
-DSPEC_OPENMP -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-mbranches-within-32B-boundaries
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin/
-1qkmalloc

Fortran benchmarks:
-m64 -xCORE-AVX512 -O3 -ipo -no-prec-div -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-mbranches-within-32B-boundaries

Peak Compiler Invocation

C benchmarks (except as noted below):
icx

600.perlbench_s: icc

C++ benchmarks:
icpx

(Continued on next page)
Dell Inc. PowerEdge R650 (Intel Xeon Gold 5317, 3.00 GHz)

<table>
<thead>
<tr>
<th>SPECspeed®2017_int_base</th>
<th>SPECspeed®2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.5</td>
<td>11.7</td>
</tr>
</tbody>
</table>

CPU2017 License: 55  
Test Sponsor: Dell Inc.  
Tested by: Dell Inc.  
Test Date: Jun-2021  
Hardware Availability: Jun-2021  
Software Availability: Feb-2021

Peak Compiler Invocation (Continued)

Fortran benchmarks:
ifort

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

600.perlbench_s: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2)  
-xCORE-AVX512 -ipo -O3 -no-prec-div  
-qopt-mem-layout-trans=4 -fno-strict-overflow  
-mbranches-within-32B-boundaries  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

602.gcc_s: -m64 -std=c11 -Wl,-z,muldefs -fprofile-generate(pass 1)  
-fprofile-use=default.proftdata(pass 2) -xCORE-AVX512 -flto  
-Oofast(pass 1) -O3 -ffast-math -qopt-mem-layout-trans=4  
-mbranches-within-32B-boundaries  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

605.mcf_s: basepeak = yes

625.x264_s: -DSPEC_OPENMP -fiopenmp -std=c11 -m64 -Wl,-z,muldefs  
-xCORE-AVX512 -flto -O3 -ffast-math  
-qopt-mem-layout-trans=4 -fno-alias  
-mbranches-within-32B-boundaries  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

657.xz_s: basepeak = yes

C++ benchmarks:

620.omnetpp_s: basepeak = yes

623.xalancbmk_s: basepeak = yes

631.deepsjeng_s: basepeak = yes

(Continued on next page)
Dell Inc.  
PowerEdge R650 (Intel Xeon Gold 5317, 3.00 GHz)  

<table>
<thead>
<tr>
<th>SPECspeed®2017_int_base</th>
<th>11.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECspeed®2017_int_peak</td>
<td>11.7</td>
</tr>
</tbody>
</table>

| CPU2017 License | 55 |
| Test Sponsor   | Dell Inc. |
| Tested by      | Dell Inc. |
| Test Date      | Jun-2021 |
| Hardware Availability | Jun-2021 |
| Software Availability | Feb-2021 |

**Peak Optimization Flags (Continued)**

641.leela_s: basepeak = yes

Fortran benchmarks:

648.exchange2_s: basepeak = yes

The flags files that were used to format this result can be browsed at


You can also download the XML flags sources by saving the following links:

http://www.spec.org/cpu2017/flags/Intel-ic2021-official-linux64_revA.xml

SPEC CPU and SPECspeed are registered trademarks 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 CPU®2017 v1.1.5 on 2021-06-04 03:59:48-0400.  
Originally published on 2021-07-06.