# SPEC® CPU2017 Floating Point Rate Result

**Dell Inc.**

PowerEdge M640 (Intel Xeon Platinum 8164, 2.00Ghz)

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base = 205</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate2017_fp_peak = Not Run</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.  
**Test Date:** Nov-2017  
**Hardware Availability:** Sep-2017  
**Software Availability:** Sep-2017

| Copies | 0 | 20 | 40 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 | 260 | 280 | 300 | 320 | 340 | 360 | 380 | 400 | 420 | 440 | 460 | 480 | 500 |
|--------|---|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 503.bwaves_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 507.cactuBSSN_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 508.namd_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 510.parest_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 511.povray_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 519.lbm_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 521.wrf_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 526.blender_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 527.cam4_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 538.imagick_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 544.nab_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 549.fotonik3d_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 554.roms_r | 104 | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Hardware**

- **CPU Name:** Intel Xeon Platinum 8164  
- **Max MHz.:** 3700  
- **Nominal:** 2000  
- **Enabled:** 52 cores, 2 chips, 2 threads/core  
- **Orderable:** 1.2 chips  
- **Cache L1:** 32 KB I + 32 KB D on chip per core  
- **L2:** 1 MB I+D on chip per core  
- **L3:** 35.75 MB I+D on chip per chip  
- **Memory:** 192 GB (12 x 16 GB 2Rx8 PC4-2666V-R)  
- **Storage:** 960 GB SATA SSD  
- **Other:** None

**Software**

- **OS:** SUSE Linux Enterprise Server 12 SP3 (x86_64) 4.4.70-2-default  
- **Compiler:** C/C++: Version 18.0.0.128 of Intel C/C++ Compiler for Linux;  
  Fortran: Version 18.0.0.128 of Intel Fortran Compiler for Linux  
- **Parallel:** No  
- **Firmware:** Version 1.0.0 released Aug-2017  
- **File System:** btrfs  
- **System State:** Run level 3 (multi-user)  
- **Base Pointers:** 64-bit  
- **Peak Pointers:** 64-bit  
- **Other:** None
Dell Inc.
PowerEdge M640 (Intel Xeon Platinum 8164, 2.00Ghz)

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

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>503.bwaves_r</td>
<td>104</td>
<td>2305</td>
<td>452</td>
<td>2309</td>
<td>452</td>
<td>2311</td>
<td>451</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
<td>104</td>
<td>687</td>
<td>192</td>
<td>688</td>
<td>191</td>
<td>688</td>
<td>191</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>508.namd_r</td>
<td>104</td>
<td>529</td>
<td>187</td>
<td>535</td>
<td>185</td>
<td>531</td>
<td>186</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>510.parest_r</td>
<td>104</td>
<td>2357</td>
<td>115</td>
<td>2384</td>
<td>114</td>
<td>2387</td>
<td>114</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>511.povray_r</td>
<td>104</td>
<td>888</td>
<td>274</td>
<td>886</td>
<td>274</td>
<td>886</td>
<td>274</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>519.lbm_r</td>
<td>104</td>
<td>987</td>
<td>111</td>
<td>987</td>
<td>111</td>
<td>987</td>
<td>111</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>521.wrf_r</td>
<td>104</td>
<td>1103</td>
<td>211</td>
<td>1100</td>
<td>210</td>
<td>1100</td>
<td>210</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>526.blender_r</td>
<td>104</td>
<td>651</td>
<td>243</td>
<td>651</td>
<td>243</td>
<td>653</td>
<td>243</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>527.cam4_r</td>
<td>104</td>
<td>745</td>
<td>244</td>
<td>738</td>
<td>246</td>
<td>742</td>
<td>245</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>538.imagick_r</td>
<td>104</td>
<td>684</td>
<td>378</td>
<td>684</td>
<td>378</td>
<td>689</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>544.nab_r</td>
<td>104</td>
<td>526</td>
<td>333</td>
<td>526</td>
<td>333</td>
<td>529</td>
<td>331</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
<td>104</td>
<td>2902</td>
<td>140</td>
<td>2886</td>
<td>140</td>
<td>2908</td>
<td>139</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>554.roms_r</td>
<td>104</td>
<td>1837</td>
<td>90.0</td>
<td>1839</td>
<td>89.8</td>
<td>1840</td>
<td>89.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SPECrate2017_fp_base = 205
SPECrate2017_fp_peak = Not Run

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

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:

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
runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>

No: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)

(Continued on next page)
SPEC CPU2017 Floating Point Rate Result

Dell Inc.  
PowerEdge M640 (Intel Xeon Platinum 8164, 2.00Ghz)  

| SPECrate2017_fp_base = 205 | SPECrate2017_fp_peak = Not Run |

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

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

General Notes (Continued)

is mitigated in the system as tested and documented.  
No: 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.  
No: 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.

This benchmark result is intended to provide perspective on past performance using the historical hardware and/or software described on this result page.

The system as described on this result page was formerly generally available. At the time of this publication, it may not be shipping, and/or may not be supported, and/or may fail to meet other tests of General Availability described in the SPEC OSG Policy document, http://www.spec.org/osg/policy.html

This measured result may not be representative of the result that would be measured were this benchmark run with hardware and software available as of the publication date.

Platform Notes

BIOS settings:  
Virtualization Technology disabled  
System Profile set to Custom  
CPU Power Management set to Maximum Performance  
Memory Frequency set to Maximum Performance  
Turbo Boost enabled  
C States disabled  
Memory Patrol Scrub disabled  
PCI ASPM L1 Link Power Management disabled  
Sysinfo program /root/cpu2017/bin/sysinfo  
Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618b0c091c0f  
running on linux-wds7 Tue Nov 14 00:05:06 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) Platinum 8164 CPU @ 2.00GHz  
  2 "physical id"s (chips)  
  104 "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 : 26

(Continued on next page)
SPEC CPU2017 Floating Point Rate Result

Dell Inc.

PowerEdge M640 (Intel Xeon Platinum 8164, 2.00Ghz)

SPECrate2017_fp_base = 205
SPECrate2017_fp_peak = Not Run

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

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

Platform Notes (Continued)

siblings : 52
physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 16 17 18 19 20 21 22 24 25 26 27 28 29
physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 16 17 18 19 20 21 22 24 25 26 27 28 29

From lscpu:
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 104
On-line CPU(s) list: 0-103
Thread(s) per core: 2
Core(s) per socket: 26
Socket(s): 2
NUMA node(s): 2
Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Intel(R) Xeon(R) Platinum 8164 CPU @ 2.00GHz
Stepping: 4
CPU MHz: 1995.321
BogoMIPS: 3990.64
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 36608K
NUMA node0 CPU(s):
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58
,60,62,64,66,68,70,72,74,76,78,80,82,84,86,88,90,92,94,96,98,100,102
NUMA node1 CPU(s):
1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51,53,55,57,59
,61,63,65,67,69,71,73,75,77,79,81,83,85,87,89,91,93,95,97,99,101,103

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 arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc
aperfmperf 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 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 pclmulqdq dtes64

/proc/cpuinfo cache data

(Continued on next page)
Dell Inc.  
PowerEdge M640 (Intel Xeon Platinum 8164, 2.00Ghz) 

<table>
<thead>
<tr>
<th>CPU2017 License: 55</th>
<th>Test Date: Nov-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>

**SPEC CPU2017 Floating Point Rate Result**  
Dell Inc.  
PowerEdge M640 (Intel Xeon Platinum 8164, 2.00Ghz)

**SPECrate2017_fp_base = ** 205  
**SPECrate2017_fp_peak = ** Not Run

**Platform Notes (Continued)**

From numactl --hardware  
WARNING: a numactl 'node' might or might not correspond to a physical chip.  
available: 2 nodes (0-1)  
node 0 cpus: 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100 102  
node 0 size: 95335 MB  
node 0 free: 94768 MB  
node 1 cpus: 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99 101 103  
node 1 size: 96736 MB  
node 1 free: 96240 MB  
node distances:  
node 0 1  
0: 10 21  
1: 21 10  

From /proc/meminfo  
MemTotal: 196682072 kB  
HugePages_Total: 0  
Hugepagesize: 2048 kB  

From /etc/*release* /etc/*version*  
SuSE-release:  
SUSE Linux Enterprise Server 12 (x86_64)  
VERSION = 12  
PATCHLEVEL = 3  
# 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-SP3"  
VERSION_ID="12.3"  
PRETTY_NAME="SUSE Linux Enterprise Server 12 SP3"  
ID="sles"  
ANSI_COLOR="0;32"  
CPE_NAME="cpe:/o:suse:sles:12:sp3"  

uname -a:  
Linux linux-wds7 4.4.70-2-default #1 SMP Wed Jun 7 15:12:06 UTC 2017 (4502c76) x86_64 x86_64 GNU/Linux  
run-level 3 Nov 13 23:54  

SPEC is set to: /root/cpu2017  
Filesystem Type Size Used Avail Use% Mounted on  
/dev/sda3 btrfs 855G 25G 831G 3% /
Dell Inc.

PowerEdge M640 (Intel Xeon Platinum 8164, 2.00Ghz)

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base = 205</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate2017_fp_peak = Not Run</td>
</tr>
</tbody>
</table>

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

CPU2017 License: 55
Test Date: Nov-2017
Hardware Availability: Sep-2017
Software Availability: Sep-2017

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.

- BIOS Dell Inc. 1.0.0 08/10/2017
- Memory:
  - 6x 00AD00B300AD HMA82GR7AFR8N-VK 16 GB 2 rank 2666
  - 6x 00AD063200AD HMA82GR7AFR8N-VK 16 GB 2 rank 2666
  - 4x Not Specified Not Specified

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
CC  519.lbm_r(base) 538.imagick_r(base) 544.nab_r(base)
------------------------------------------------------------------------------
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
CXXC 508.namd_r(base) 510.parest_r(base)
------------------------------------------------------------------------------
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
CC  511.povray_r(base) 526.blender_r(base)
------------------------------------------------------------------------------
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
FC  507.cactuBSSN_r(base)
------------------------------------------------------------------------------
icpc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

(Continued on next page)
Dell Inc. PowerEdge M640 (Intel Xeon Platinum 8164, 2.00Ghz)

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base = 205</th>
<th>SPECrate2017_fp_peak = Not Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU2017 License: 55</td>
<td>Test Date: Nov-2017</td>
</tr>
<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>

Compiler Version Notes (Continued)

FC 503.bwaves_r(base) 549.fotonik3d_r(base) 554.roms_r(base)

ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

CC 521.wrf_r(base) 527.cam4_r(base)

ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
icc (ICC) 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

Benchmarks using both Fortran and C:
ifort icc

Benchmarks using both C and C++:
icpc icc

Benchmarks using Fortran, C, and C++:
icpc icc ifort

Base Portability Flags

503.bwaves_r: -DSPEC_LP64
507.cactuBSSN_r: -DSPEC_LP64
508.namd_r: -DSPEC_LP64

(Continued on next page)
Dell Inc.  
PowerEdge M640 (Intel Xeon Platinum 8164, 2.00Ghz)

**SPECrate2017_fp_peak** = Not Run

**SPECrate2017_fp_base** = 205

<table>
<thead>
<tr>
<th>CPU2017 License: 55</th>
<th>Test Date: Nov-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>

### Base Portability Flags (Continued)

510.parest_r: -DSPEC_LP64  
511.povray_r: -DSPEC_LP64  
519.lbm_r: -DSPEC_LP64  
521.wrf_r: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian  
526.blender_r: -DSPEC_LP64 -DSPEC_LINUX -funsigned-char  
527.cam4_r: -DSPEC_LP64 -DSPEC_CASE_FLAG  
538.imagick_r: -DSPEC_LP64  
544.nab_r: -DSPEC_LP64  
549.fotonik3d_r: -DSPEC_LP64  
554.roms_r: -DSPEC_LP64

### Base Optimization Flags

**C benchmarks:**

-xCORE-AVX512 -ipo -03 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3

**C++ benchmarks:**

-xCORE-AVX512 -ipo -03 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3

**Fortran benchmarks:**

-xCORE-AVX512 -ipo -03 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3 -nostandard-realloc-lhs  
-align array32byte

**Benchmarks using both Fortran and C:**

-xCORE-AVX512 -ipo -03 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3 -nostandard-realloc-lhs  
-align array32byte

**Benchmarks using both C and C++:**

-xCORE-AVX512 -ipo -03 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3

**Benchmarks using Fortran, C, and C++:**

-xCORE-AVX512 -ipo -03 -no-prec-div -qopt-prefetch  
-ffinite-math-only -qopt-mem-layout-trans=3 -nostandard-realloc-lhs  
-align array32byte
**SPEC CPU2017 Floating Point Rate Result**

Dell Inc.

PowerEdge M640 (Intel Xeon Platinum 8164, 2.00Ghz)

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base</th>
<th>205</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate2017_fp_peak</td>
<td>Not Run</td>
</tr>
</tbody>
</table>

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

**Test Date:** Nov-2017  
**Hardware Availability:** Sep-2017  
**Software Availability:** Sep-2017

### Base Other Flags

- **C benchmarks:**  
  -m64 -std=c11

- **C++ benchmarks:**  
  -m64

- **Fortran benchmarks:**  
  -m64

- **Benchmarks using both Fortran and C:**  
  -m64 -std=c11

- **Benchmarks using both C and C++:**  
  -m64 -std=c11

- **Benchmarks using Fortran, C, and C++:**  
  -m64 -std=c11

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:


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 2017-11-14 01:05:05-0500.  
Originally published on 2018-02-27.