### Dell Inc.

PowerEdge R740xd (Intel Xeon Platinum 8176, 2.10GHz)

| Threads | 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 |
|---------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 603.bwaves_s | 56 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 607.cactuBSSN_s | 56 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 619.lbm_s | 56 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 621.wrf_s | 56 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 627.cam4_s | 56 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 628.pop2_s | 56 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 638.imagick_s | 56 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 644.nab_s | 56 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 649.fotonik3d_s | 56 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 654.roms_s | 56 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

**SPECspeed2017_fp_base = 123**  
**SPECspeed2017_fp_peak = 124**

### Hardware

- **CPU Name:** Intel Xeon Platinum 8176  
- **Max MHz.:** 3800  
- **Nominal:** 2100  
- **Enabled:** 56 cores, 2 chips  
- **Orderable:** 1,2 chips  
- **Cache L1:** 32 KB I + 32 KB D on chip per core  
- **Cache L2:** 1 MB I+D on chip per core  
- **Cache L3:** 38.5 MB I+D on chip per chip  
- **Other:** None  
- **Memory:** 384 GB (24 x 16 GB 2Rx8 PC4-2666V-R)  
- **Storage:** 480 GB SATA SSD  
- **Other:** None

### Software

- **OS:** SUSE Linux Enterprise Server 12 SP2  
- **Compiler:** C/C++: Version 18.0.0.128 of Intel C/C++  
- **Parallel:** Yes  
- **Firmware:** Version 1.3.7 released Feb-2018  
- **System State:** Run level 3 (multi-user)  
- **Base Pointers:** 64-bit  
- **Peak Pointers:** 64-bit  
- **Other:** None
Dell Inc.
PowerEdge R740xd (Intel Xeon Platinum 8176, 2.10GHz)

SPECspeed2017_fp_base = 123
SPECspeed2017_fp_peak = 124

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>603.bwaves_s</td>
<td>56</td>
<td>124</td>
<td>477</td>
<td>124</td>
<td>475</td>
<td>124</td>
<td>475</td>
<td>56</td>
<td>124</td>
<td>476</td>
<td>124</td>
<td>477</td>
<td>123</td>
<td>478</td>
</tr>
<tr>
<td>607.cactuBSSN_s</td>
<td>56</td>
<td>93.0</td>
<td>179</td>
<td>93.9</td>
<td>177</td>
<td>94.0</td>
<td>177</td>
<td>56</td>
<td>92.9</td>
<td>179</td>
<td>92.6</td>
<td>180</td>
<td>92.7</td>
<td>180</td>
</tr>
<tr>
<td>619.lbm_s</td>
<td>56</td>
<td>118</td>
<td>44.4</td>
<td>118</td>
<td>44.3</td>
<td>118</td>
<td>44.4</td>
<td>56</td>
<td>118</td>
<td>44.4</td>
<td>118</td>
<td>44.3</td>
<td>118</td>
<td>44.5</td>
</tr>
<tr>
<td>621.wrf_s</td>
<td>56</td>
<td>160</td>
<td>82.4</td>
<td>161</td>
<td>82.4</td>
<td>160</td>
<td>82.8</td>
<td>56</td>
<td>154</td>
<td>86.1</td>
<td>153</td>
<td>86.4</td>
<td>154</td>
<td>86.0</td>
</tr>
<tr>
<td>627.cam4_s</td>
<td>56</td>
<td>89.1</td>
<td>99.5</td>
<td>89.0</td>
<td>99.6</td>
<td>89.0</td>
<td>99.6</td>
<td>56</td>
<td>88.8</td>
<td>99.8</td>
<td>89.2</td>
<td>99.4</td>
<td>88.8</td>
<td>99.8</td>
</tr>
<tr>
<td>628.pop2_s</td>
<td>56</td>
<td>227</td>
<td>52.3</td>
<td>225</td>
<td>52.7</td>
<td>225</td>
<td>52.7</td>
<td>56</td>
<td>221</td>
<td>53.8</td>
<td>227</td>
<td>52.2</td>
<td>223</td>
<td>53.2</td>
</tr>
<tr>
<td>638.imagick_s</td>
<td>56</td>
<td>100</td>
<td>144</td>
<td>100</td>
<td>144</td>
<td>100</td>
<td>144</td>
<td>56</td>
<td>100</td>
<td>144</td>
<td>100</td>
<td>144</td>
<td>100</td>
<td>144</td>
</tr>
<tr>
<td>644.nab_s</td>
<td>56</td>
<td>67.1</td>
<td>260</td>
<td>67.1</td>
<td>261</td>
<td>67.1</td>
<td>260</td>
<td>56</td>
<td>67.1</td>
<td>261</td>
<td>67.0</td>
<td>261</td>
<td>67.1</td>
<td>261</td>
</tr>
<tr>
<td>649.fotonik3d_s</td>
<td>56</td>
<td>108</td>
<td>84.4</td>
<td>109</td>
<td>84.0</td>
<td>108</td>
<td>84.5</td>
<td>56</td>
<td>107</td>
<td>84.8</td>
<td>108</td>
<td>84.7</td>
<td>108</td>
<td>84.1</td>
</tr>
<tr>
<td>654.roms_s</td>
<td>56</td>
<td>105</td>
<td>150</td>
<td>105</td>
<td>150</td>
<td>106</td>
<td>149</td>
<td>56</td>
<td>102</td>
<td>155</td>
<td>103</td>
<td>153</td>
<td>103</td>
<td>153</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,compact"
OMP_STACKSIZE = "192M"

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

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

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:
Sub NUMA Cluster disabled
Virtualization Technology disabled

(Continued on next page)
Dell Inc.

PowerEdge R740xd (Intel Xeon Platinum 8176, 2.10GHz)

SPECspeed2017_fp_base = 123
SPECspeed2017_fp_peak = 124

<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>
<tr>
<td>Test Date:</td>
<td>Mar-2018</td>
</tr>
<tr>
<td>Hardware Availability:</td>
<td>Sep-2017</td>
</tr>
<tr>
<td>Software Availability:</td>
<td>Feb-2018</td>
</tr>
</tbody>
</table>

Platform Notes (Continued)

System Profile set to Custom
CPU Performance set to Maximum Performance
C States set to Autonomous
C1E disabled
Uncore Frequency set to Dynamic
Energy Efficiency Policy set to Performance
Memory Patrol Scrub disabled
Logical Processor disabled
CPU Interconnect Bus Link Power Management disabled
PCI ASPM L1 Link Power Management disabled
Sysinfo program /home/cpu2017rev5/cpu2017/bin/sysinfo
Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f
running on linux-bgfp Fri Mar 16 15:42:32 2018

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 8176 CPU @ 2.10GHz
  2 "physical id"s (chips)
  56 "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 : 28
siblings : 28
physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27 28 29 30
physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14 16 17 18 19 20 21 22 24 25 26 27 28 29 30

From lscpu:
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 56
On-line CPU(s) list: 0-55
Thread(s) per core: 1
Core(s) per socket: 28
Socket(s): 2
NUMA node(s): 2
Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Intel(R) Xeon(R) Platinum 8176 CPU @ 2.10GHz
Stepping: 4
CPU MHz: 2095.067

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

Dell Inc.
PowerEdge R740xd (Intel Xeon Platinum 8176, 2.10GHz)

SPECspeed2017_fp_base = 123
SPECspeed2017_fp_peak = 124

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

Test Date: Mar-2018
Hardware Availability: Sep-2017
Software Availability: Feb-2018

Platform Notes (Continued)

BogoMIPS: 4190.13
Virtualization: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 39424K
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
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
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 dtsc64 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
xsafe avx f16c rdrand lahf_lm abm 3dnowprefetch ida arat epb invpcid_single pln pts
dtherm intel_pt rsb_ctxsw spec_ctrl retpoline kaiser tpr_shadow vnmi flexpriority
ept vpid fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2  3dnow avx512f avx512dq rdseed
adx smap clflushopt clwb avx512cd avx512bw avx512vl xsavesopt xsaveopt
xsavec xgetbv1 cqm_llc cqm_occup_llc pku ospke

From /proc/cpuinfo

cache size : 39424 KB

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
node 0 size: 191987 MB
node 0 free: 187640 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
node 1 size: 193515 MB
node 1 free: 189750 MB
node distances:
node 0 1
0: 10 21
1: 21 10

From /proc/meminfo

MemTotal: 394754744 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

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

(Continued on next page)
Dell Inc.  
PowerEdge R740xd (Intel Xeon Platinum 8176, 2.10GHz)  

SPEC CPU2017 Floating Point Speed Result  

**SPECspeed2017_fp_base** = 123  
**SPECspeed2017_fp_peak** = 124  

**CPU2017 License**: 55  
**Test Date**: Mar-2018  
**Test Sponsor**: Dell Inc.  
**Hardware Availability**: Sep-2017  
**Tested by**: Dell Inc.  
**Software Availability**: Feb-2018  

---

**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-bgfp 4.4.114-94.11-default #1 SMP Thu Feb 1 19:28:26 UTC 2018 (4309ff9)  
x86_64 x86_64 x86_64 GNU/Linux  
run-level 3 Mar 16 10:52  

SPEC is set to: `/home/cpu2017rev5/cpu2017`  

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. 1.3.7 02/08/2018  
Memory:  
22x 00AD00B300AD HMA82GR7AFR8N-VK 16 GB 2 rank 2666  
2x 00CE063200CE M393A2K43BB1-CTD 16 GB 2 rank 2666  

(End of data from sysinfo program)  

---

**Compiler Version Notes**

---

(Continued on next page)
## Dell Inc.

PowerEdge R740xd (Intel Xeon Platinum 8176, 2.10GHz)

<table>
<thead>
<tr>
<th>SPECspeed2017_fp_base</th>
<th>SPECspeed2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td>124</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 55  
**Test Date:** Mar-2018  
**Test Sponsor:** Dell Inc.  
**Hardware Availability:** Sep-2017  
**Tested by:** Dell Inc.  
**Software Availability:** Feb-2018

### Compiler Version Notes (Continued)

Copyright ©1985-2017 Intel Corporation. All rights reserved.

```
==============================================================================
CC   619.lbm_s(peak)
------------------------------------------------------------------------------
icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
FC  607.cactuBSSN_s(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.
------------------------------------------------------------------------------
FC  607.cactuBSSN_s(peak)
------------------------------------------------------------------------------
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.
------------------------------------------------------------------------------
FC  603.bwaves_s(base) 649.fotonik3d_s(base) 654.roms_s(base)
------------------------------------------------------------------------------
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
FC  603.bwaves_s(peak) 649.fotonik3d_s(peak) 654.roms_s(peak)
------------------------------------------------------------------------------
ifort (IFORT) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
CC  621.wrf_s(base) 627.cam4_s(base, peak) 628.pop2_s(base)
------------------------------------------------------------------------------
(Continued on next page)```
Dell Inc.
PowerEdge R740xd (Intel Xeon Platinum 8176, 2.10GHz)

SPEC CPU2017 Floating Point Speed Result
Copyright 2017-2018 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed2017_fp_base = 123
SPECspeed2017_fp_peak = 124

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

Compiler Version Notes (Continued)
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
Fortran benchmarks:
ifort

Base Portability Flags
603.bwaves_s: -DSPEC_LP64
607.cactusBSSN_s: -DSPEC_LP64
619.lbm_s: -DSPEC_LP64
621.wrf_s: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
627.cam4_s: -DSPEC_LP64 -DSPEC_CASE_FLAG
628.pop2_s: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
-assume byterecl
638.imagick_s: -DSPEC_LP64
644.nab_s: -DSPEC_LP64
649.fotonik3d_s: -DSPEC_LP64
654.roms_s: -DSPEC_LP64
SPEC CPU2017 Floating Point Speed Result

Dell Inc.
PowerEdge R740xd (Intel Xeon Platinum 8176, 2.10GHz)

SPECspeed2017_fp_base = 123
SPECspeed2017_fp_peak = 124

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

Test Date: Mar-2018
Hardware Availability: Sep-2017
Software Availability: Feb-2018

Base Optimization Flags

C benchmarks:
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP

Fortran benchmarks:
-DSPEC_OPENMP -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp
-nostandard-realloc-lhs -align array32byte

Benchmarks using both Fortran and C:
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP
-nostandard-realloc-lhs -align array32byte

Benchmarks using Fortran, C, and C++:
-xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP
-nostandard-realloc-lhs -align array32byte

Base Other Flags

C benchmarks:
-m64 -std=c11

Fortran benchmarks:
-m64

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

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

Peak Compiler Invocation

C benchmarks:
icc

Fortran benchmarks:
ifort

(Continued on next page)
Dell Inc.
PowerEdge R740xd (Intel Xeon Platinum 8176, 2.10GHz)

SPEC CPU2017 Floating Point Speed Result

Copyright 2017-2018 Standard Performance Evaluation Corporation

SPECspeed2017_fp_base = 123
SPECspeed2017_fp_peak = 124

Test Date: Mar-2018
Hardware Availability: Sep-2017
Software Availability: Feb-2018

Peak Compiler Invocation (Continued)

Benchmarks using both Fortran and C:
ifort icc

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

Peak Portability Flags
Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
619.lbm_s: -prof-gen(pass 1) -prof-use(pass 2) -O2 -xCORE-AVX512
-qopt-prefetch -ipo -O3 -ffinite-math-only -no-prec-div
-qopt-mem-layout-trans=3 -DSPEC_SUPPRESS_OPENMP -qopenmp
-DSPEC_OPENMP

638.imagick_s: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp
-DSPEC_OPENMP

644.nab_s: Same as 638.imagick_s

Fortran benchmarks:
-prof-gen(pass 1) -prof-use(pass 2) -DSPEC_SUPPRESS_OPENMP
-DSPEC_OPENMP -O2 -xCORE-AVX512 -qopt-prefetch -ipo -O3
-ffinite-math-only -no-prec-div -qopt-mem-layout-trans=3 -qopenmp
-nostandard-realloc-lhs -align array32byte

Benchmarks using both Fortran and C:
621.wrf_s: -prof-gen(pass 1) -prof-use(pass 2) -O2 -xCORE-AVX512
-qopt-prefetch -ipo -O3 -ffinite-math-only -no-prec-div
-qopt-mem-layout-trans=3 -DSPEC_SUPPRESS_OPENMP -qopenmp
-DSPEC_OPENMP -nostandard-realloc-lhs -align array32byte

627.cam4_s: -xCORE-AVX512 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=3 -qopenmp
-DSPEC_OPENMP -nostandard-realloc-lhs -align array32byte

(Continued on next page)
**SPEC CPU2017 Floating Point Speed Result**

Dell Inc.

PowerEdge R740xd (Intel Xeon Platinum 8176, 2.10GHz)  

<table>
<thead>
<tr>
<th>SPECspeed2017_fp_base</th>
<th>Spec2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td>124</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Test Date:** Mar-2018  
**Hardware Availability:** Sep-2017  
**Tested by:** Dell Inc.  
**Software Availability:** Feb-2018

**Peak Optimization Flags (Continued)**

628.pop2_s: Same as 621.wrf_s

Benchmarks using Fortran, C, and C++:

- `prof-gen(pass 1) -prof-use(pass 2) -O2 -xCORE-AVX512 -qopt-prefetch`
- `ipo -O3 -ffinite-math-only -no-prec-div -qopt-mem-layout-trans=3`
- `DSPEC_SUPPRESS_OPENMP -qopenmp -DSPEC_OPENMP -nostandard-realloc-lhs`
- `align array32byte`

**Peak Other Flags**

C benchmarks:

- `-m64 -std=c11`

Fortran benchmarks:

- `-m64`

Benchmarks using both Fortran 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 2018-03-16 16:42:31-0400.  
Report generated on 2018-10-31 17:45:35 by CPU2017 PDF formatter v6067.  
Originally published on 2018-05-01.