**SPEC® CPU2017 Floating Point Rate Result**

Dell Inc.
PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)

<table>
<thead>
<tr>
<th>Copies</th>
<th>SPECrate2017_fp_base</th>
<th>SPECrate2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>146</td>
<td>150</td>
</tr>
<tr>
<td>32</td>
<td>97.3</td>
<td>97.8</td>
</tr>
<tr>
<td>32</td>
<td>93.6</td>
<td>94.7</td>
</tr>
<tr>
<td>32</td>
<td>105</td>
<td>105</td>
</tr>
<tr>
<td>32</td>
<td>146</td>
<td>146</td>
</tr>
<tr>
<td>32</td>
<td>79.9</td>
<td>87.5</td>
</tr>
<tr>
<td>32</td>
<td>169</td>
<td>169</td>
</tr>
<tr>
<td>32</td>
<td>134</td>
<td>135</td>
</tr>
<tr>
<td>32</td>
<td>152</td>
<td>152</td>
</tr>
<tr>
<td>32</td>
<td>127</td>
<td>127</td>
</tr>
<tr>
<td>32</td>
<td>88.3</td>
<td>90.9</td>
</tr>
</tbody>
</table>

**Hardware**

- **CPU Name:** Intel Xeon Gold 6244
- **Max MHz.:** 4400
- **Nominal:** 3600
- **Enabled:** 16 cores, 2 chips, 2 threads/core
- **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:** 24.75 MB I+D on chip per chip
- **Other:** None
- **Memory:** 384 GB (12 x 32 GB 2Rx4 PC4-2933Y-R)
- **Storage:** 1 x 480 GB SATA SSD
- **Other:** None

**Software**

- **OS:** Ubuntu 18.04.2 LTS
- **Compiler:** C/C++: Version 19.0.4.227 of Intel C/C++ Compiler Build 20190416 for Linux;
  Fortran: Version 19.0.4.227 of Intel Fortran Compiler Build 20190416 for Linux
- **Parallel:** No
- **Firmware:** Version 2.1.6 released Mar-2019
- **File System:** ext4
- **System State:** Run level 5 (multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** 64-bit
- **Other:** None
## Dell Inc. PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)

**SPECrate2017_fp_base = 146**  
**SPECrate2017_fp_peak = 150**

### 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>32</td>
<td>703</td>
<td>457</td>
<td>701</td>
<td>457</td>
<td>704</td>
<td>456</td>
<td>705</td>
<td>455</td>
<td>703</td>
<td>457</td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
<td>32</td>
<td>418</td>
<td>97.0</td>
<td>415</td>
<td>97.7</td>
<td>416</td>
<td>97.3</td>
<td>414</td>
<td>97.8</td>
<td>418</td>
<td>96.8</td>
</tr>
<tr>
<td>508.namd_r</td>
<td>32</td>
<td>325</td>
<td>93.4</td>
<td>325</td>
<td>93.6</td>
<td>324</td>
<td>93.8</td>
<td>321</td>
<td>94.6</td>
<td>321</td>
<td>94.7</td>
</tr>
<tr>
<td>510.parest_r</td>
<td>32</td>
<td>796</td>
<td>105</td>
<td>796</td>
<td>105</td>
<td>797</td>
<td>105</td>
<td>796</td>
<td>105</td>
<td>798</td>
<td>105</td>
</tr>
<tr>
<td>511.povray_r</td>
<td>32</td>
<td>513</td>
<td>146</td>
<td>513</td>
<td>146</td>
<td>512</td>
<td>146</td>
<td>429</td>
<td>174</td>
<td>427</td>
<td>175</td>
</tr>
<tr>
<td>519.lbm_r</td>
<td>32</td>
<td>422</td>
<td>79.8</td>
<td>422</td>
<td>79.9</td>
<td>422</td>
<td>79.9</td>
<td>386</td>
<td>87.4</td>
<td>385</td>
<td>87.6</td>
</tr>
<tr>
<td>521.wrf_r</td>
<td>32</td>
<td>425</td>
<td>169</td>
<td>425</td>
<td>169</td>
<td>423</td>
<td>169</td>
<td>423</td>
<td>169</td>
<td>418</td>
<td>172</td>
</tr>
<tr>
<td>526.blender_r</td>
<td>32</td>
<td>363</td>
<td>134</td>
<td>362</td>
<td>134</td>
<td>363</td>
<td>134</td>
<td>362</td>
<td>135</td>
<td>362</td>
<td>135</td>
</tr>
<tr>
<td>527.cam4_r</td>
<td>32</td>
<td>367</td>
<td>153</td>
<td>369</td>
<td>152</td>
<td>372</td>
<td>151</td>
<td>354</td>
<td>158</td>
<td>357</td>
<td>157</td>
</tr>
<tr>
<td>538.imagick_r</td>
<td>32</td>
<td>256</td>
<td>310</td>
<td>253</td>
<td>314</td>
<td>258</td>
<td>309</td>
<td>257</td>
<td>309</td>
<td>256</td>
<td>311</td>
</tr>
<tr>
<td>544.nab_r</td>
<td>32</td>
<td>245</td>
<td>220</td>
<td>246</td>
<td>219</td>
<td>247</td>
<td>218</td>
<td>246</td>
<td>219</td>
<td>246</td>
<td>219</td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
<td>32</td>
<td>983</td>
<td>127</td>
<td>985</td>
<td>127</td>
<td>983</td>
<td>127</td>
<td>983</td>
<td>127</td>
<td>982</td>
<td>127</td>
</tr>
<tr>
<td>554.roms_r</td>
<td>32</td>
<td>580</td>
<td>87.6</td>
<td>576</td>
<td>88.3</td>
<td>573</td>
<td>88.8</td>
<td>559</td>
<td>90.9</td>
<td>557</td>
<td>91.2</td>
</tr>
</tbody>
</table>

### 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:  
LD_LIBRARY_PATH = "/home/cpu2017/lib/ia32:/home/cpu2017/lib/intel64"

Binaries compiled on a system with 1x Intel Core i9-7900X CPU + 32GB RAM  
memory using Redhat Enterprise Linux 7.5

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

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
SPEC CPU2017 Floating Point Rate Result

Dell Inc.
PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)

SPECrate2017_fp_base = 146
SPECrate2017_fp_peak = 150

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

Test Date: Jul-2019
Hardware Availability: Apr-2019
Software Availability: May-2019

General Notes (Continued)

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>

Platform Notes

BIOS settings:
ADDDC setting disabled
Sub NUMA Cluster enabled
Virtualization Technology disabled
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 enabled
CPU Interconnect Bus Link Power Management disabled
PCI ASPM L1 Link Power Management disabled
Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9
running on intel-sut Wed Jul  3 00:46:11 2019

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 6244 CPU @ 3.60GHz
  2 "physical id"s (chips)
  32 "processors"
core, siblings (Caution: counting these is hw and system dependent. The following
excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
cpu cores : 8
siblings  : 16
physical 0: cores 2 3 4 9 17 18 25 27
physical 1: cores 2 3 4 9 17 18 25 27

From lscpu:
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s):
  32
On-line CPU(s) list: 0-31

(Continued on next page)
**Dell Inc.**

PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)

**SPEC CPU2017 Floating Point Rate Result**

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base</th>
<th>SPECrate2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>146</td>
<td>150</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.  
**Test Date:** Jul-2019  
**Hardware Availability:** Apr-2019  
**Software Availability:** May-2019

**Platform Notes (Continued)**

Thread(s) per core: 2  
Core(s) per socket: 8  
Socket(s): 2  
NUMA node(s): 4  
Vendor ID: GenuineIntel  
CPU family: 6  
Model: 85  
Model name: Intel(R) Xeon(R) Gold 6244 CPU @ 3.60GHz  
Stepping: 6  
CPU MHz: 2945.120  
BogoMIPS: 7200.00  
Virtualization: VT-x  
L1d cache: 32K  
L1i cache: 32K  
L2 cache: 1024K  
L3 cache: 25344K  
NUMA node0 CPU(s): 0,6,8,12,16,22,24,28  
NUMA node1 CPU(s): 1,7,9,13,17,23,25,29  
NUMA node2 CPU(s): 2,4,10,14,18,20,26,30  
NUMA node3 CPU(s): 3,5,11,15,19,21,27,31  
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 aes f16c rdrand lahf_lm abm 3nowprefetch cpuid_fault epb cat_l3 cdp_l3 invpcid_single ssbd mba ibrs ibpb ibrs_enhanced tpr_shadow vmmi flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erness invpcid rtm cqm mpx rdt_a avx512f avx512dq rdseed adx smap clflushopt clwb intel_pt avx512cd avx512bw avx512vl xsaveopt xsavevc xgetbv1 xsaves cqm_llc cqm_occult_llc cqm_mbb_total cqm_mbb_local dtherm ida arat pln pts pku ospke avx512_vnni flush_l1d arch_capabilities

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 6 8 12 16 22 24 28  
node 0 size: 95169 MB  
node 0 free: 94749 MB  
node 1 cpus: 1 7 9 13 17 23 25 29  
node 1 size: 96745 MB  
node 1 free: 96346 MB  
node 2 cpus: 2 4 10 14 18 20 26 30  
node 2 size: 96766 MB  
node 2 free: 96335 MB  

(Continued on next page)
Dell Inc.
PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)  

| SPECrate2017_fp_base = 146 |
| SPECrate2017_fp_peak = 150 |

**Platform Notes (Continued)**

node 3 cpus: 3 5 11 15 19 21 27 31  
node 3 size: 96765 MB  
node 3 free: 96260 MB  
node distances:  
node 0 1 2 3  
0: 10 21 11 21  
1: 21 10 21 11  
2: 11 21 10 21  
3: 21 11 21 10  

From /proc/meminfo  
MemTotal: 394698232 kB  
HugePages_Total: 0  
Hugepagesize: 2048 kB  

/usr/bin/lsb_release -d  
Ubuntu 18.04.2 LTS  

From /etc/*release* /etc/*version*  
debian_version: buster/sid  
os-release:  
  NAME="Ubuntu"  
  VERSION="18.04.2 LTS (Bionic Beaver)"  
  ID=ubuntu  
  ID_LIKE=debian  
  PRETTY_NAME="Ubuntu 18.04.2 LTS"  
  VERSION_ID="18.04"  
  HOME_URL="https://www.ubuntu.com/"  
  SUPPORT_URL="https://help.ubuntu.com/"  

uname -a:  
Linux intel-sut 4.15.0-47-generic #50-Ubuntu SMP Wed Mar 13 10:44:52 UTC 2019 x86_64  
x86_64 x86_64 GNU/Linux  

Kernel self-reported vulnerability status:  
CVE-2017-5754 (Meltdown): Not affected  
CVE-2017-5753 (Spectre variant 1): Mitigation: __user pointer sanitization  
CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS, IBPB  

run-level 5 Jul 2 18:28  

SPEC is set to: /home/cpu2017  
Filesystem Type Size Used Avail Use% Mounted on  
/dev/sda2 ext4 439G 43G 374G 11% /  

Additional information from dmidecode follows. WARNING: Use caution when you interpret

(Continued on next page)
Dell Inc.  
PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)  

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base</th>
<th>146</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate2017_fp_peak</td>
<td>150</td>
</tr>
</tbody>
</table>

CPU2017 License: 55  
Test Sponsor: Dell Inc.  
Test Date: Jul-2019  
Tested by: Dell Inc.  
Hardware Availability: Apr-2019  
Software Availability: May-2019

Platform Notes (Continued)

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. 2.1.6 03/04/2019  
Memory:  
9x 00AD00B300AD HMA84GR7CJ4N-WM 32 GB 2 rank 2933  
3x 00AD069D00AD HMA84GR7CJ4N-WM 32 GB 2 rank 2933  
4x Not Specified Not Specified

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
CC  519.lbm_r(base) 538.imagick_r(base, peak) 544.nab_r(base, peak)
==============================================================================
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

==============================================================================
CC   519.lbm_r(peak)
==============================================================================
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

==============================================================================
CXXC 508.namd_r(base) 510.parest_r(base, peak)
==============================================================================
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

==============================================================================
CXXC 508.namd_r(peak)
==============================================================================
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.0.4.227 Build 20190416  
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

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

Dell Inc.
PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)

SPECrate2017_fp_base = 146
SPECrate2017_fp_peak = 150

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

Test Date: Jul-2019
Hardware Availability: Apr-2019
Software Availability: May-2019

Compiler Version Notes (Continued)

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

(Continued on next page)
Dell Inc.

PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)

Dell Inc.

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

Test Date: Jul-2019
Hardware Availability: Apr-2019
Software Availability: May-2019

SPECrate2017_fp_base = 146
SPECrate2017_fp_peak = 150

Compiler Version Notes (Continued)

Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

==============================================================================
CC 521.wrf_r(base) 527.cam4_r(base)
Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)
64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
==============================================================================

Base Compiler Invocation

C benchmarks:
  icc -m64 -std=c11

C++ benchmarks:
  icpc -m64

Fortran benchmarks:
  ifort -m64

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

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

Benchmarks using Fortran, C, and C++:
  icpc -m64 icc -m64 -std=c11 ifort -m64
## SPEC CPU2017 Floating Point Rate Result

**Dell Inc.**

PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)

| SPECrate2017_fp_base | 146 |
| SPECrate2017_fp_peak | 150 |

### CPU2017 License
55

### Test Sponsor
Dell Inc.

### Tested by
Dell Inc.

| Test Date: | Jul-2019 |
| Hardware Availability: | Apr-2019 |
| Software Availability: | May-2019 |

### Base Portability Flags

503.bwaves_r: `-DSPEC_LP64`
507.cactuBSSN_r: `-DSPEC_LP64`
508.namd_r: `-DSPEC_LP64`
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-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only`
- `-qopt-mem-layout-trans=4`

**C++ benchmarks:**

- `-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only`
- `-qopt-mem-layout-trans=4`

**Fortran benchmarks:**

- `-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only`
- `-qopt-mem-layout-trans=4`
- `-auto -nostandard-realloc-lhs`
- `-align array32byte`

**Benchmarks using both Fortran and C:**

- `-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only`
- `-qopt-mem-layout-trans=4`
- `-auto -nostandard-realloc-lhs`
- `-align array32byte`

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

- `-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only`
- `-qopt-mem-layout-trans=4`

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

- `-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only`
- `-qopt-mem-layout-trans=4`
- `-auto -nostandard-realloc-lhs`
- `-align array32byte`
Dell Inc.

PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base</th>
<th>146</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate2017_fp_peak</td>
<td>150</td>
</tr>
</tbody>
</table>

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

**Peak Compiler Invocation**

C benchmarks:
icc -m64 -std=c11

C++ benchmarks:
icpc -m64

Fortran benchmarks:
ifort -m64

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

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

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

**Peak Portability Flags**

Same as Base Portability Flags

**Peak Optimization Flags**

C benchmarks:
519.lbm_r: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX2 -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4
538.imagick_r: -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4
544.nab_r: Same as 538.imagick_r

C++ benchmarks:
508.namd_r: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX2 -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4

(Continued on next page)
Dell Inc.

PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)

SPECrate2017_fp_base = 146
SPECrate2017_fp_peak = 150

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

Test Date: Jul-2019
Hardware Availability: Apr-2019
Software Availability: May-2019

Peak Optimization Flags (Continued)

510.parest_r: -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4

Fortran benchmarks:

503.bwaves_r: -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4 -auto
-nostandard-realloc-lhs -align array32byte

549.fotonik3d_r: Same as 503.bwaves_r

554.roms_r: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX2 -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -auto -nostandard-realloc-lhs
-align array32byte

Benchmarks using both Fortran and C:

-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -auto -nostandard-realloc-lhs
-align array32byte

Benchmarks using both C and C++:

511.povray_r: -prof-gen(pass 1) -prof-use(pass 2) -ipo -xCORE-AVX2 -O3
-no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4

526.blender_r: -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch
-ffinite-math-only -qopt-mem-layout-trans=4

Benchmarks using Fortran, C, and C++:

-ipc -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only
-qopt-mem-layout-trans=4 -auto -nostandard-realloc-lhs
-align array32byte

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 CPU2017 Floating Point Rate Result

**Dell Inc.**

PowerEdge MX740 (Intel Xeon Gold 6244, 3.60GHz)

<table>
<thead>
<tr>
<th>SPECrate2017_fp_peak</th>
<th>SPECrate2017_fp_base</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>146</td>
</tr>
</tbody>
</table>

### CPU2017 License: 55

### Test Sponsor: Dell Inc.

### Tested by: Dell Inc.

### Test Date: Jul-2019

### Hardware Availability: Apr-2019

### Software Availability: May-2019

---

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 v1.0.5 on 2019-07-02 20:46:11-0400.
Report generated on 2019-08-06 17:58:32 by CPU2017 PDF formatter v6067.
Originally published on 2019-08-06.