## SPEC CPU®2017 Floating Point Speed Result

**PowerEdge MX740c (Intel Xeon Gold 6240R, 2.40 GHz)**

- **CPU2017 License:** 55
- **Test Sponsor:** Dell Inc
- **Test Date:** Jun-2020
- **Hardware Availability:** Apr-2020
- **Software Availability:** Apr-2020

### SPECspeed®2017_fp_base = 142

### SPECspeed®2017_fp_peak = 143

### Test Sponsor: Dell Inc

### Hardware

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU Name:</strong></td>
<td>Intel Xeon Gold 6240R</td>
</tr>
<tr>
<td><strong>Max MHz:</strong></td>
<td>4000</td>
</tr>
<tr>
<td><strong>Nominal:</strong></td>
<td>2400</td>
</tr>
<tr>
<td><strong>Enabled:</strong></td>
<td>48 cores, 2 chips, 2 threads/core</td>
</tr>
<tr>
<td><strong>Orderable:</strong></td>
<td>1.2 chips</td>
</tr>
<tr>
<td><strong>Cache L1:</strong></td>
<td>32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td><strong>L2:</strong></td>
<td>1 MB I+D on chip per core</td>
</tr>
<tr>
<td><strong>L3:</strong></td>
<td>35.75 MB I+D on chip per chip</td>
</tr>
<tr>
<td><strong>Other:</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Memory:</strong></td>
<td>768 GB (24 x 32 GB 2Rx4 PC4-2933Y-R)</td>
</tr>
<tr>
<td><strong>Storage:</strong></td>
<td>1 x 480 GB SATA SSD</td>
</tr>
<tr>
<td><strong>Other:</strong></td>
<td>None</td>
</tr>
</tbody>
</table>

### Software

- **OS:** Red Hat Enterprise Linux 8.1
- **Compiler:** C/C++: Version 19.1.1.217 of Intel C/C++ Compiler for Linux;
  Fortran: Version 19.1.1.217 of Intel Fortran Compiler for Linux
- **Parallel:** Yes
- **Firmware:** Version 2.7.1 released Feb-2020
- **File System:** tmpfs
- **System State:** Run level 3 (multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** 64-bit
- **Other:** jemalloc memory allocator V5.0.1
- **Power Management:** BIOS set to prefer performance at the cost of additional power usage
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>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>96</td>
<td>126</td>
<td>470</td>
<td>127</td>
<td>463</td>
<td>127</td>
<td>466</td>
<td>96</td>
<td>126</td>
<td>467</td>
<td>126</td>
<td>468</td>
<td>127</td>
</tr>
<tr>
<td>607.cactuBSSN_s</td>
<td>96</td>
<td><strong>103</strong></td>
<td><strong>163</strong></td>
<td>102</td>
<td>163</td>
<td>103</td>
<td>162</td>
<td>96</td>
<td><strong>103</strong></td>
<td><strong>163</strong></td>
<td>102</td>
<td>163</td>
<td>103</td>
</tr>
<tr>
<td>619.lbm_s</td>
<td>96</td>
<td>56.0</td>
<td>93.5</td>
<td>57.7</td>
<td>90.7</td>
<td><strong>57.5</strong></td>
<td><strong>91.1</strong></td>
<td>96</td>
<td>56.0</td>
<td>93.5</td>
<td>57.7</td>
<td>90.7</td>
<td><strong>57.5</strong></td>
</tr>
<tr>
<td>621.wrf_s</td>
<td>96</td>
<td>106</td>
<td>125</td>
<td><strong>106</strong></td>
<td><strong>125</strong></td>
<td>105</td>
<td>126</td>
<td>96</td>
<td>103</td>
<td><strong>128</strong></td>
<td>104</td>
<td><strong>128</strong></td>
<td>104</td>
</tr>
<tr>
<td>627.cam4_s</td>
<td>96</td>
<td><strong>71.3</strong></td>
<td><strong>124</strong></td>
<td>71.2</td>
<td>125</td>
<td>71.3</td>
<td>124</td>
<td>96</td>
<td><strong>71.3</strong></td>
<td><strong>124</strong></td>
<td>71.2</td>
<td>125</td>
<td>71.3</td>
</tr>
<tr>
<td>628.pop2_s</td>
<td>96</td>
<td>185</td>
<td>64.1</td>
<td><strong>185</strong></td>
<td><strong>64.1</strong></td>
<td>184</td>
<td>64.4</td>
<td>96</td>
<td>185</td>
<td>64.1</td>
<td><strong>185</strong></td>
<td><strong>64.1</strong></td>
<td>184</td>
</tr>
<tr>
<td>638.imagick_s</td>
<td>96</td>
<td>107</td>
<td>135</td>
<td><strong>106</strong></td>
<td><strong>137</strong></td>
<td>106</td>
<td>137</td>
<td>96</td>
<td>107</td>
<td>135</td>
<td><strong>106</strong></td>
<td><strong>137</strong></td>
<td>106</td>
</tr>
<tr>
<td>644.nab_s</td>
<td>96</td>
<td>63.9</td>
<td>274</td>
<td><strong>64.1</strong></td>
<td><strong>273</strong></td>
<td>64.2</td>
<td>272</td>
<td>96</td>
<td><strong>60.9</strong></td>
<td><strong>287</strong></td>
<td>60.9</td>
<td>287</td>
<td>60.7</td>
</tr>
<tr>
<td>649.fotonik3d_s</td>
<td>96</td>
<td>106</td>
<td>85.8</td>
<td>104</td>
<td>87.5</td>
<td><strong>105</strong></td>
<td><strong>87.1</strong></td>
<td>96</td>
<td>108</td>
<td>84.4</td>
<td><strong>106</strong></td>
<td><strong>85.6</strong></td>
<td>105</td>
</tr>
<tr>
<td>654.roms_s</td>
<td>96</td>
<td><strong>107</strong></td>
<td><strong>147</strong></td>
<td>106</td>
<td>149</td>
<td>109</td>
<td>145</td>
<td>96</td>
<td><strong>107</strong></td>
<td><strong>147</strong></td>
<td>106</td>
<td>149</td>
<td>109</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"

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
KMP_AFFINITY = "granularity=fine,compact"
LD_LIBRARY_PATH = "/dev/shm/cpu2017-ic19.1u1/lib/intel64:/dev/shm/cpu2017-ic19.1u1/je5.0.1-64"
MALLOCONF = "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
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)
General Notes (Continued)

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
runcpu command invoked through numactl i.e.:
  numactl --interleave=all runcpu <etc>
jemalloc, a general purpose malloc implementation
built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5

Platform Notes

BIOS settings:
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 set to standard
Logical Processor enabled
CPU Interconnect Bus Link Power Management disabled
PCI ASPM L1 Link Power Management disabled
UPI Prefetch enabled
LLC Prefetch disabled
Dead Line LLC Alloc enabled
Directory AtoS disabled
Sysinfo program /dev/shm/cpu2017-ic19.1u1/bin/sysinfo
Rev: r6365 of 2019-08-21 295195f888a3d7ed1e6e46a485a0011
running on localhost.localdomain Fri Jun 12 21:30:40 2020

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 6240R CPU @ 2.40GHz
  2 "physical id"s (chips)
  96 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following

(Continued on next page)
Platform Notes (Continued)

excerpts from /proc/cpuinfo might not be reliable. Use with caution.

cpu cores : 24
siblings : 48
physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 16 17 18 19 20 21 25 26 27 28 29
physical 1: cores 0 1 2 3 4 5 6 9 10 11 12 13 16 17 18 19 20 21 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): 96
On-line CPU(s) list: 0-95
Thread(s) per core: 2
Core(s) per socket: 24
Socket(s): 2
NUMA node(s): 2
Vendor ID: GenuineIntel
CPU family: 6
Model: 85
Model name: Intel(R) Xeon(R) Gold 6240R CPU @ 2.40GHz
Stepping: 7
CPU MHz: 3172.359
CPU max MHz: 4000.0000
CPU min MHz: 1000.0000
BogoMIPS: 4800.00
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
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
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 pda1gb rdtsscp
lm constant_tsc arch_perfmon pebs bts rep_good nopl nopt xtopology nonstop_tsc cpuid
aperfmpref pi pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16
xtr pdc pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave
avx f16c rdrand lahf_lm abml 3nowprefetch cpuid_fault epb cat_l3 cdp_l3
invcid_single intel_pipin ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vmni
flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid rtm
cqmx mxtr dt_rdt_a avx512f avx512dq rdseed adx smap cvldshopt cvld intel_pt avx512cd
avx512bw avx512vl xsaveopt xsaves xsavec xgetbv1 xsaves cqm_llc cqm_occu1 cqm_mbb_total
cqm_mbb_local dtherm ida arat pni pts knu ospe avx512_vnni md_clear flush_lld

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

Copyright 2017-2020 Standard Performance Evaluation Corporation

Dell Inc.
(Test Sponsor: Dell Inc)

PowerEdge MX740c (Intel Xeon Gold 6240R, 2.40 GHz)

SPECspeed®2017_fp_base = 142
SPECspeed®2017_fp_peak = 143

CPU2017 License: 55
Test Date: Jun-2020
Test Sponsor: Dell Inc
Hardware Availability: Apr-2020
Tested by: Dell Inc.
Software Availability: Apr-2020

Platform Notes (Continued)

```
 architectures
 /proc/cpuinfo cache data
  cache size : 36608 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 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94
  node 0 size: 385602 MB
  node 0 free: 378677 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
  node 1 size: 387036 MB
  node 1 free: 376369 MB
  node distances:
  node 0 1
  0: 10 21
  1: 21 10

From /proc/meminfo
  MemTotal: 791182224 kB
  HugePages_Total: 0
  Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*
os-release:
  NAME="Red Hat Enterprise Linux"
  VERSION="8.1 (Ootpa)"
  ID="rhel"
  ID_LIKE="fedora"
  VERSION_ID="8.1"
  PLATFORM_ID="platform:el8"
  PRETTY_NAME="Red Hat Enterprise Linux 8.1 (Ootpa)"
  ANSI_COLOR="0;31"
redhat-release: Red Hat Enterprise Linux release 8.1 (Ootpa)
system-release: Red Hat Enterprise Linux release 8.1 (Ootpa)
system-release-cpe: cpe:/o:redhat:enterprise_linux:8.1:ga

uname -a:
  Linux localhost.localdomain 4.18.0-147.el8.x86_64 #1 SMP Thu Sep 26 15:52:44 UTC 2019
  x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:
  CVE-2018-3620 (L1 Terminal Fault): Not affected
```

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

Dell Inc.
(Test Sponsor: Dell Inc)
PowerEdge MX740c (Intel Xeon Gold 6240R, 2.40 GHz)

SPECspeed®2017_fp_base = 142
SPECspeed®2017_fp_peak = 143

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

Platform Notes (Continued)

Microarchitectural Data Sampling: Not affected
CVE-2017-5754 (Meltdown): Not affected
CVE-2018-3639 (Speculative Store Bypass): Mitigation: Speculative Store Bypass disabled via prctl and seccomp
CVE-2017-5753 (Spectre variant 1): Mitigation: usercopy/swapgs barriers and __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling

run-level 3 Jun 12 10:49
SPEC is set to: /dev/shm/cpu2017-ic19.1u1
Filesystem Type Size Used Avail Use% Mounted on
tmpfs tmpfs 378G 11G 368G 3% /dev/shm

From /sys/devices/virtual/dmi/id
BIOS: Dell Inc. 2.7.1 02/14/2020
Vendor: Dell Inc.
Product: PowerEdge MX740c
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:
21x 00AD00B300AD HMA84GR7CJR4N-WM 32 GB 2 rank 2933
1x 00AD063200AD HMA84GR7CJR4N-WM 32 GB 2 rank 2933
2x 00AD069D00AD HMA84GR7CJR4N-WM 32 GB 2 rank 2933

(End of data from sysinfo program)
The inconsistent Compiler version information under Compiler Version section is due to a discrepancy in Intel Compiler. The correct version of C/C++ compiler is: Version 19.1.1.217 Build 20200306 Compiler for Linux
The correct version of Fortran compiler is: Version 19.1.1.217 Build 20200306 Compiler for Linux

Compiler Version Notes

C 619.lbm_s(base, peak) 638.imagick_s(base, peak)
644.nab_s(base, peak)

(Related to Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.1.1.217 Build 20200306
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

(Continued on next page)
Dell Inc.  
(Test Sponsor: Dell Inc)  
PowerEdge MX740c (Intel Xeon Gold 6240R, 2.40 GHz)  

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

SPECspeed®2017_fp_base = 142  
SPECspeed®2017_fp_peak = 143

---

Compiler Version Notes (Continued)

C++, C, Fortran | 607.cactuBSSN_s(base, peak)

Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.1.1.217 Build 20200306  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.  
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.1.1.217 Build 20200306  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.  
Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)  
64, Version 19.1.1.217 Build 20200306  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

Fortran | 603.bwaves_s(base, peak) 649.fotonik3d_s(base, peak)  
564.roms_s(base, peak)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)  
64, Version 19.1.1.217 Build 20200306  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

Fortran, C | 621.wrf_s(base, peak) 627.cam4_s(base, peak)  
628.pop2_s(base, peak)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)  
64, Version 19.1.1.217 Build 20200306  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.  
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.1.1.217 Build 20200306  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---

Base Compiler Invocation

C benchmarks:  
icc

Fortran benchmarks:  
ifort

Benchmarks using both Fortran and C:  
ifort icc

(Continued on next page)
## Base Compiler Invocation (Continued)

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

## Base Portability Flags

603.bwaves_s: -DSPEC_LP64  
607.cactuBSSN_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

## Base Optimization Flags

C benchmarks:
```
-m64 -std=c11 -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4 -gopenmp -DSPEC_OPENMP -mbranches-within-32B-boundaries
```

Fortran benchmarks:
```
-m64 -Wl,-z,muldefs -DSPEC_OPENMP -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4 -gopenmp -nostandard-realloc-lhs -mbranches-within-32B-boundaries -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Benchmarks using both Fortran and C:
```
-m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4 -gopenmp -DSPEC_OPENMP -mbranches-within-32B-boundaries -nostandard-realloc-lhs -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Benchmarks using Fortran, C, and C++:
```
-m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4 -gopenmp -DSPEC_OPENMP -mbranches-within-32B-boundaries -nostandard-realloc-lhs
```

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

Dell Inc.  
(Test Sponsor: Dell Inc)

PowerEdge MX740c (Intel Xeon Gold 6240R, 2.40 GHz)

SPECSpeed®2017_fp_base = 142
SPECSpeed®2017_fp_peak = 143

<table>
<thead>
<tr>
<th>CPU2017 License: 55</th>
<th>Test Date:</th>
<th>Jun-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Dell Inc</td>
<td>Hardware Availability:</td>
<td>Apr-2020</td>
</tr>
<tr>
<td>Tested by: Dell Inc.</td>
<td>Software Availability:</td>
<td>Apr-2020</td>
</tr>
</tbody>
</table>

Base Optimization Flags (Continued)

Benchmarks using Fortran, C, and C++ (continued):

- `-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc`

Peak Compiler Invocation

C benchmarks:

- `icc`

Fortran benchmarks:

- `ifort`

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: basepeak = yes`
- `638.imagick_s: basepeak = yes`
- `644.nab_s: -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4 -qopenmp -DSPEC_OPENMP -mbranches-within-32B-boundaries -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc`

Fortran benchmarks:

- `603.bwaves_s: -m64 -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -DSPEC_SUPPRESS_OPENMP -DSPEC_OPENMP -ipo -xCORE-AVX2 -O3 -no-prec-div -qopt-prefetch -ffinite-math-only`

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

Dell Inc. (Test Sponsor: Dell Inc)
PowerEdge MX740c (Intel Xeon Gold 6240R, 2.40 GHz)

SPECspeed®2017_fp_base = 142
SPECspeed®2017_fp_peak = 143

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

Test Date: Jun-2020
Hardware Availability: Apr-2020
Software Availability: Apr-2020

Peak Optimization Flags (Continued)

603.bwaves_s (continued):
-qopt-mem-layout-trans=4 -qopenmp -nostandard-realloc-lhs
-mbranches-within-32B-boundaries
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

649.fotonik3d_s: Same as 603.bwaves_s

654.roms_s: basepeak = yes

Benchmarks using both Fortran and C:

621.wrf_s: -m64 -std=c11 -Wl,-z,muldefs -prof-gen(pass l)
-prof-use(pass 2) -ipo -xCORE-AVX2 -O3 -no-prec-div
-qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=4
-DSPEC_SUPPRESS_OPENMP -qopenmp -DSPEC_OPENMP
-mbranches-within-32B-boundaries -nostandard-realloc-lhs
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

627.cam4_s: basepeak = yes

628.pop2_s: basepeak = yes

Benchmarks using Fortran, C, and C++:

607.cactuBSSN_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-ic19.1u1-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 v1.1.0 on 2020-06-12 21:30:39-0400.
Originally published on 2020-09-29.