Dell Inc. 

PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)

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

SPECrater®2017_fp_base = 383
SPECrater®2017_fp_peak = 401

Test Date: Oct-2021
Hardware Availability: Jul-2021
Software Availability: May-2021

<table>
<thead>
<tr>
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<th>Copies</th>
<th>SPECrater®2017_fp_base</th>
<th>SPECrater®2017_fp_peak</th>
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<tr>
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<td>128</td>
<td>714</td>
<td>724</td>
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<tr>
<td>507.cactusBSSN_r</td>
<td>128</td>
<td>538</td>
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<td>508.namd_r</td>
<td>128</td>
<td>305</td>
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<tr>
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<td>128</td>
<td>514</td>
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<td>455</td>
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<tr>
<td>519.lbm_r</td>
<td>128</td>
<td>261</td>
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<td>336</td>
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<td></td>
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<td>549.fotonik3d_r</td>
<td>128</td>
<td>701</td>
<td></td>
</tr>
<tr>
<td>554.roms_r</td>
<td>128</td>
<td>152</td>
<td></td>
</tr>
</tbody>
</table>

Hardware

CPU Name: Intel Xeon Gold 6338
Max MHz: 3200
Nominal: 2000
Enabled: 64 cores, 2 chips, 2 threads/core
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: 48 MB I+D on chip per core
Other: None
Memory: 512 GB (16 x 32 GB 2Rx8 PC4-3200AA-R)
Storage: 225 GB on tmpfs
Other: None

Software

OS: Red Hat Enterprise Linux 8.4 (Ootpa)
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: No
Firmware: Version 1.2.1 released May-2021
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 and OS set to prefer performance at the cost of additional power usage.
Dell Inc.

PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)

SPECrate®2017_fp_base = 383
SPECrate®2017_fp_peak = 401

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:

LD_LIBRARY_PATH = "'/mnt/ramdisk/cpu2017-1.1.8-ic2021.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.8-ic2021.1/je5.0.1-64"

MALLOC_CONF = "retain:true"

General Notes
Binaries compiled on a system with 1x Intel Core i9-7980XE CPU + 64GB RAM memory using Red Hat Enterprise Linux 8.1
Transparent Huge Pages enabled by default

(Continued on next page)
Dell Inc.

PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)

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<td>Hardware Availability: Jul-2021</td>
</tr>
<tr>
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<td>Software Availability: May-2021</td>
</tr>
</tbody>
</table>

Prior to runcpu invocation
Filesystem page cache synced and cleared with:
sync; echo 3> /proc/sys/vm/drop_caches
runcpu command invoked through numacll 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

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.

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

Platform Notes

BIOS settings:
- Sub NUMA Cluster : 2-Way Clustering
- 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
- PCI ASPM L1 Link
  - Power Management : Disabled

Sysinfo program /mnt/ramdisk/cpu2017-1.1.8-ic2021.1/bin/sysinfo
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16aca64d64d
running on r750xs.jzjpm83.inside.dell.com Wed Oct  6 19:55:51 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 6338 CPU @ 2.00GHz

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

Dell Inc.

PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)

CPU2017 License: 55
Test Sponsor: Dell Inc.
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SPECrate®2017_fp_base = 383
SPECrate®2017_fp_peak = 401

Test Date: Oct-2021
Hardware Availability: Jul-2021
Software Availability: May-2021

Platform Notes (Continued)

2 "physical id"s (chips)
128 "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 : 32
siblings : 64
physical 0: cores 0 1 2 3 4 5 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
physical 1: cores 0 1 2 3 4 5 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

From lscpu from util-linux 2.32.1:
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 128
On-line CPU(s) list: 0-127
Thread(s) per core: 2
Core(s) per socket: 32
Socket(s): 2
NUMA node(s): 4
Vendor ID: GenuineIntel
BIOS Vendor ID: Intel
CPU family: 6
Model: 106
Model name: Intel(R) Xeon(R) Gold 6338 CPU @ 2.00GHz
BIOS Model name: Intel(R) Xeon(R) Gold 6338 CPU @ 2.00GHz
Stepping: 6
CPU MHz: 2630.223
BogoMIPS: 4000.00
Virtualization: VT-x
L1d cache: 48K
L1i cache: 32K
L2 cache: 1280K
L3 cache: 49152K
NUMA node0 CPU(s):
0,4,8,12,16,20,24,28,32,36,40,44,48,52,56,60,64,68,72,76,80,84,88,92,96,100,104,108,112,116,120,124
NUMA node1 CPU(s):
2,6,10,14,18,22,26,30,34,38,42,46,50,54,58,62,66,70,74,78,82,86,90,94,98,102,106,110,114,118,122,126
NUMA node2 CPU(s):
1,5,9,13,17,21,25,29,33,37,41,45,49,53,57,61,65,69,73,77,81,85,89,93,97,101,105,109,113,117,121,125
NUMA node3 CPU(s):
Platform Notes (Continued)

Flags:                                                                 
        fpu vme de pse tsc mce cx8 apic sep mtrr pge mca cmov           
        pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpte1gb rdtsscp        
        lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc aperfmperf pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16        
        xtpr pdcm pcid dca sse4_1_l sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 invpcid_single    
        intel_pipn ssbd mba ibrs ibpb stibp ibrs_enhanced fsgsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid cmqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma      
        clflushopt clwb intel_pt avx512cd sha ni avx512bw avx512vl xsaveopt xsaves xsave l1ic cmqm_occump llc cmqm_mbmt_total cmqm_mbmt_local split_lock_detect wboinvd      
        dtherm ida arat pln pts avx512vbmi umip pku ospke avx512_vbmi2 gfni vaes vpcmclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq la57 rdpid fsrm md_clear pconfig   
        flush_lid arch_capabilities

/proc/cpuinfo cache data
        cache size : 49152 KB

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 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92 96        
        100 104 108 112 116 120 124        
        node 0 size: 128117 MB        
        node 0 free: 111178 MB        
        node 1 cpus: 2 6 10 14 18 22 26 30 34 38 42 46 50 54 58 62 66 70 74 78 82 86 90 94 98        
        102 106 110 114 118 122 126        
        node 1 size: 129017 MB        
        node 1 free: 115984 MB        
        node 2 cpus: 1 5 9 13 17 21 25 29 33 37 41 45 49 53 57 61 65 69 73 77 81 85 89 93 97        
        101 105 109 113 117 121 125        
        node 2 size: 129017 MB        
        node 2 free: 116716 MB        
        node 3 cpus: 3 7 11 15 19 23 27 31 35 39 43 47 51 55 59 63 67 71 75 79 83 87 91 95 99        
        103 107 111 115 119 123 127        
        node 3 size: 129014 MB        
        node 3 free: 107458 MB        
        node distances:        
        node 0 1 2 3        
        0: 10 11 20 20        
        1: 11 10 20 20        
        2: 20 20 10 11        
        3: 20 20 11 10

From /proc/meminfo
        MemTotal: 527529944 kB
        HugePages_Total: 0
        Hugepagesize: 2048 kB

(Continued on next page)
spec

SPEC CPU®2017 Floating Point Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

Dell Inc.

PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)

SPECrate®2017_fp_base = 383
SPECrate®2017_fp_peak = 401

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

SPECLicense: 55
Test Date: Oct-2021
Hardware Availability: Jul-2021
Software Availability: May-2021

Platform Notes (Continued)

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

From /etc/*release* /etc/*version*
os-release:
  NAME="Red Hat Enterprise Linux"
  VERSION="8.4 (Ootpa)"
  ID="rhel"
  ID_LIKE="fedora"
  VERSION_ID="8.4"
  PLATFORM_ID="platform:el8"
  PRETTY_NAME="Red Hat Enterprise Linux 8.4 (Ootpa)"
  ANSI_COLOR="0;31"
redhat-release: Red Hat Enterprise Linux release 8.4 (Ootpa)
system-release: Red Hat Enterprise Linux release 8.4 (Ootpa)
system-release-cpe: cpe:/o:redhat:enterprise_linux:8.4:ga

uname -a:
  Linux r750xs.jzjpm83.inside.dell.com 4.18.0-305.el8.x86_64 #1 SMP Thu Apr 29 08:54:30 EDT 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):
  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/swaps barriers and __user pointer sanitation
CVE-2017-5715 (Spectre variant 2):
  Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling
CVE-2020-0543 (Special Register Buffer Data Sampling):
  Not affected
CVE-2019-11135 (TSX Asynchronous Abort):
  Not affected

run-level 3 Oct 6 13:51

SPEC is set to: /mnt/ramdisk/cpu2017-1.1.8-ic2021.1
Filesystem     Type   Size  Used Avail Use% Mounted on
tmpfs          tmpfs  225G   55G  171G  25% /mnt/ramdisk

From /sys/devices/virtual/dmi/id
  Vendor: Dell Inc.

(Continued on next page)
Dell Inc.

PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)

**SPECrate\textsuperscript{\textregistered}2017\_fp\_peak = 401**

**SPECrate\textsuperscript{\textregistered}2017\_fp\_base = 383**

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</table>

**Platform Notes (Continued)**

Product: PowerEdge R750xs
Product Family: PowerEdge
Serial: JZJPM83

Additional information from dmidecode 3.2 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:
16x 002C069D002C 18ASF4G72PDZ-3G2E1 32 GB 2 rank 3200

BIOS:
BIOS Vendor: Dell Inc.
BIOS Version: 1.2.1
BIOS Date: 05/28/2021
BIOS Revision: 1.2

(End of data from sysinfo program)

**Compiler Version Notes**

```
C               | 519.lbm_r(base, peak) 538.imagick_r(base, peak) 544.nab_r(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++             | 508.namd_r(base, peak) 510.parest_r(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++, C          | 511.povray_r(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.
Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000
```

(Continued on next page)
Dell Inc. PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)

SPECrate®2017_fp_base = 383
SPECrate®2017_fp_peak = 401

Compiler Version Notes (Continued)

Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---------------------------------------------------------------------
C++, C       | 511.povray_r(base) 526.blender_r(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.
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++, C       | 511.povray_r(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.
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++, C       | 511.povray_r(base) 526.blender_r(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.
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++, C, Fortran | 507.cactuBSSN_r(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.
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.
Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000

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

**Dell Inc.**

PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)

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## Compiler Version Notes (Continued)

```
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.
```

---

### Fortran

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</table>

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.

---

### Fortran, C

<table>
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Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000

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---

### Compiler Invocation

- **C benchmarks:**
  - icx

- **C++ benchmarks:**
  - icpx

- **Fortran benchmarks:**
  - ifort

- **Benchmarks using both Fortran and C:**
  - ifort icx

- **Benchmarks using both C and C++:**
  - icpx icx

- **Benchmarks using Fortran, C, and C++:**
  - icpx icx ifort
# SPEC CPU®2017 Floating Point Rate Result

## Dell Inc.

### PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)

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- **Test Date:** Oct-2021  
- **Tested by:** Dell Inc.  
- **Hardware Availability:** Jul-2021  
- **Software Availability:** May-2021

### 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_CASEFLAG  
- 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:**

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

**C++ benchmarks:**

- `-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math -flto`  
- `-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4`  
- `-mbranches-within-32B-boundaries -ljemalloc`  
- `-L/usr/local/jemalloc64-5.0.1/lib`

**Fortran benchmarks:**

- `-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ipo -no-prec-div`  
- `-qopt-prefetch -ffinite-math-only`  
- `-qopt-multiple-gather-scatter-by-shuffles -qopt-mem-layout-trans=4`  
- `-nostandard-realloc-lhs -align array32byte -auto`  
- `-mbranches-within-32B-boundaries -ljemalloc`  
- `-L/usr/local/jemalloc64-5.0.1/lib`

**Benchmarks using both Fortran and C:**

- `-w -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math`  
- `-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -O3 -ipo`  
- `-no-prec-div -qopt-prefetch -ffinite-math-only`  
- `-qopt-multiple-gather-scatter-by-shuffles`  
- `-mbranches-within-32B-boundaries -nostandard-realloc-lhs`  
- `-align array32byte -auto -ljemalloc -L/usr/local/jemalloc64-5.0.1/lib`

(Continued on next page)
### Base Optimization Flags (Continued)

Benchmarks using both C and C++:

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

Benchmarks using Fortran, C, and C++:

- `-w` `-m64` `-std=c11` `-Wl,-z,muldefs` `-xCORE-AVX512` `-Ofast` `-ffast-math`  
- `-flto` `-mfpmath=sse` `-funroll-loops` `-qopt-mem-layout-trans=4` `-O3`  
- `-no-prec-div` `-qopt-prefetch` `-ffinite-math-only`  
- `-qopt-multiple-gather-scatter-by-shuffles`  
- `-mbranches-within-32B-boundaries` `-nostandard-realloc-lhs`  
- `-align array32byte` `-auto` `-ljemalloc` `-L/usr/local/jemalloc64-5.0.1/lib`

### Peak Compiler Invocation

**C benchmarks:**  
`icx`

**C++ benchmarks:**  
`icpx`

**Fortran benchmarks:**  
`ifort`

Benchmarks using both Fortran and C:  
`ifort icx`

Benchmarks using both C and C++:  
`511.povray_r icpc icx`

`526.blender_r icpx icx`

Benchmarks using Fortran, C, and C++:  
`icpx icx ifort`

### Peak Portability Flags

Same as Base Portability Flags
### Dell Inc.

**PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)**

<table>
<thead>
<tr>
<th>SPECrate®2017_fp_base</th>
<th>383</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate®2017_fp_peak</td>
<td>401</td>
</tr>
</tbody>
</table>

- **CPU2017 License:** 55
- **Test Sponsor:** Dell Inc.
- **Tested by:** Dell Inc.
- **Test Date:** Oct-2021
- **Hardware Availability:** Jul-2021
- **Software Availability:** May-2021

#### Peak Optimization Flags

**C benchmarks:**

- 519.lbm_r: basepeak = yes
- 538.imagick_r: basepeak = yes

**C++ benchmarks:**

- 508.namd_r: basepeak = yes

**Fortran benchmarks:**


- 549.fotonik3d_r: basepeak = yes
- 554.roms_r: Same as 503.bwaves_r

**Benchmarks using both Fortran and C:**

- 521.wrf_r: basepeak = yes
- 527.cam4_r: basepeak = yes

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

- 511.povray_r: -prof-gen(pass 1) -prof-use(pass 2) -xCORE-AVX512 -O3 -ipo -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-multiple-gather-scatter-by-shuffles -qopt-mem-layout-trans=4 -mbranches-within-32B-boundaries

(Continued on next page)
## Dell Inc.  
**PowerEdge R750xs (Intel Xeon Gold 6338, 2.00 GHz)**

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### Peak Optimization Flags (Continued)

511.povray_r (continued):
- `-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc`

526.blender_r: `basepeak = yes`

Benchmarks using Fortran, C, and C++:

507.cactuBSSN_r: `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:

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