Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)

Dell Inc.

SPEC CPU®2017 Integer Rate Result

SPECrate®2017_int_base = 417
SPECrate®2017_int_peak = 432

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.
Test Date: Apr-2021
Hardware Availability: Apr-2021
Software Availability: Feb-2021

Copies

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base (417)</th>
</tr>
</thead>
</table>
| 500.perlbench_r 128
| 502.gcc_r 128
| 505.mcf_r 128
| 520.omnetpp_r 128
| 523.xalancbmk_r 128
| 525.x264_r 128
| 531.deepsjeng_r 128
| 541.leela_r 128
| 548.exchange2_r 128
| 557.xz_r 128

CPU Name: Intel Xeon Platinum 8352Y
Max MHz: 3400
Nominal: 2200
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 chip
Other: None
Memory: 512 GB (16 x 32 GB 2Rx8 PC4-3200AA-R)
Storage: 125 GB on tmpfs
Other: None

OS: Red Hat Enterprise Linux 8.3 (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 1.1.0 released Mar-2021
File System: tmpfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other: jemalloc memory allocator V5.0.1
Power Management: BIOS and OS set to prefer performance at the cost of additional power usage.
SPECCPU®2017 Integer Rate Result

Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)

SPECrate®2017_int_base = 417
SPECrate®2017_int_peak = 432

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

Test Date: Apr-2021
Hardware Availability: Apr-2021
Software Availability: Feb-2021

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>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
<td>128</td>
<td>698</td>
<td>292</td>
<td>696</td>
<td>293</td>
<td></td>
<td></td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>128</td>
<td>550</td>
<td>329</td>
<td>551</td>
<td>329</td>
<td></td>
<td></td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>128</td>
<td>306</td>
<td>676</td>
<td>308</td>
<td>671</td>
<td></td>
<td></td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>128</td>
<td>669</td>
<td>251</td>
<td>670</td>
<td>251</td>
<td></td>
<td></td>
</tr>
<tr>
<td>523.xalancbmk_r</td>
<td>128</td>
<td>263</td>
<td>513</td>
<td>263</td>
<td>513</td>
<td></td>
<td></td>
</tr>
<tr>
<td>525.x264_r</td>
<td>128</td>
<td>261</td>
<td>859</td>
<td>260</td>
<td>862</td>
<td></td>
<td></td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>128</td>
<td>445</td>
<td>330</td>
<td>444</td>
<td>330</td>
<td></td>
<td></td>
</tr>
<tr>
<td>541.leela_r</td>
<td>128</td>
<td>660</td>
<td>321</td>
<td>661</td>
<td>321</td>
<td></td>
<td></td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>128</td>
<td>375</td>
<td>894</td>
<td>373</td>
<td>899</td>
<td></td>
<td></td>
</tr>
<tr>
<td>557.xz_r</td>
<td>128</td>
<td>584</td>
<td>237</td>
<td>585</td>
<td>236</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SPECCPU®2017_int_base = 417
SPECCPU®2017_int_peak = 432

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

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:
LD_LIBRARY_PATH = "/mnt/ramdisk/cpu2017-1.1.7-ic2021.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.7-ic2021.1/lib/ia32:/mnt/ramdisk/cpu2017-1.1.7-ic2021.1/je5.0.1-32"
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

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)

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

Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)

SPECrater®2017_int_base = 417
SPECrater®2017_int_peak = 432

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

Test Date: Apr-2021
Hardware Availability: Apr-2021
Software Availability: Feb-2021

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
Filesysten page cache synced and cleared with:
  sync; echo 3> /proc/sys/vm/drop_caches
runcpu command invoked through numaclt i.e.:
  numaclt --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

Benchmark run from a 125 GB ramdisk created with the cmd: "mount -t tmpfs -o size=125G 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

Sysinfo program /mnt/ramdisk/cpu2017-1.1.7-ic2021.1/bin/sysinfo
Rev: r6538 of 2020-09-24 e8664e66d2d7080afea894b38e82f1c
running on localhost.localdomain Sat Apr  3 19:37:01 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) Platinum 8352Y CPU @ 2.20GHz
  2 "physical id"s (chips)
  128 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following

(Continued on next page)
Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)

Copyright 2017-2021 Standard Performance Evaluation Corporation

Spec CPU®2017 Integer Rate Result

SPECrate®2017_int_base = 417
SPECrate®2017_int_peak = 432

Test Date: Apr-2021
Hardware Availability: Apr-2021
Software Availability: Feb-2021

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

Platform Notes (Continued)

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 lsccpu:

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
CPU family:          6
Model:               106
Model name:          Intel(R) Xeon(R) Platinum 8352Y CPU @ 2.20GHz
Stepping:            6
CPU MHz:             1647.392
BogoMIPS:            4400.00
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):

Flags:

tsc 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 tsc_deadline_timer aes xsave

(Continued on next page)
**SPEC CPU®2017 Integer Rate Result**

**Dell Inc.**

PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base</th>
<th>SPECrate®2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>417</td>
<td>432</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 55  
**Test Date:** Apr-2021  
**Test Sponsor:** Dell Inc.  
**Hardware Availability:** Apr-2021  
**Tested by:** Dell Inc.  
**Software Availability:** Feb-2021

**Platform Notes (Continued)**

```plaintext
avx f16c rdrcr lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 invpcid_single intel_pni ssbd mba ibrs ibpb stibp ibrs_enhanced fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local split_lock_detect wbnoinvd dtherm ida arat pln pts avx512vbmi umip pku ospke avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpoptcntdq la57 rdpid md_clear pconfig flush_l1d arch_capabilities
```

/proc/cpuinfo cache data  
```plaintext
cache size : 49152 KB
```

From numactl --hardware  
**WARNING:** a numactl 'node' might or might not correspond to a physical chip.  
```plaintext
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: 125124 MB  
node 0 free: 127472 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: 125754 MB  
node 1 free: 119524 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: 125488 MB  
node 2 free: 128562 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: 125564 MB  
node 3 free: 128733 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  
```plaintext
MemTotal:  527792668 kB  
HugePages_Total:   0  
Hugepagesize:  2048 kB
```

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

From /etc/*release* /etc/*version*

(Continued on next page)
Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)

SPEC CPU®2017 Integer Rate Result
Copyright 2017-2021 Standard Performance Evaluation Corporation

SPECrate®2017_int_base = 417
SPECrate®2017_int_peak = 432

CPU2017 License: 55
Test Date: Apr-2021
Test Sponsor: Dell Inc.
Hardware Availability: Apr-2021
Tested by: Dell Inc.
Software Availability: Feb-2021

Platform Notes (Continued)

os-release:
   NAME="Red Hat Enterprise Linux"
   VERSION="8.3 (Ootpa)"
   ID="rhel"
   ID_LIKE="fedora"
   VERSION_ID="8.3"
   PLATFORM_ID="platform:el8"
   PRETTY_NAME="Red Hat Enterprise Linux 8.3 (Ootpa)"
   ANSI_COLOR="0;31"
redhat-release: Red Hat Enterprise Linux release 8.3 (Ootpa)
system-release: Red Hat Enterprise Linux release 8.3 (Ootpa)
system-release-cpe: cpe:/o:redhat:enterprise_linux:8.3:ga

uname -a:
   Linux localhost.localdomain 4.18.0-240.el8.x86_64 #1 SMP Wed Sep 23 05:13:10 EDT 2020
   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/swapgs barriers and __user pointer sanitization
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 Apr 3 19:35 last=5

SPEC is set to: /mnt/ramdisk/cpu2017-1.1.7-ic2021.1
Filesystem     Type    Size  Used Avail Use% Mounted on
  tmpfs       tmpfs  125G   4.4G  121G   4% /mnt/ramdisk

From /sys/devices/virtual/dmi/id
Vendor: Dell Inc.
Product: PowerEdge MX750c
Product Family: PowerEdge
Serial: 1234567

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

(Continued on next page)
## 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.

Memory:
- 16x 002C0632002C 18ASF4G72PDZ-3G2E1 32 GB 2 rank 3200
- 16x Not Specified Not Specified

BIOS:
- BIOS Vendor: Dell Inc.
- BIOS Version: 1.1.0
- BIOS Date: 03/25/2021
- BIOS Revision: 1.1

(End of data from sysinfo program)

## Compiler Version Notes

<table>
<thead>
<tr>
<th>Version Notes</th>
<th>Compiler Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>`C</td>
<td>500.perlbench_r(peak) 557.xz_r(peak)`</td>
</tr>
<tr>
<td>`C</td>
<td>502.gcc_r(peak)`</td>
</tr>
<tr>
<td>`C</td>
<td>500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak) 557.xz_r(base)`</td>
</tr>
</tbody>
</table>

(Continued on next page)
Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)

### SPEC CPU®2017 Integer Rate Result

<table>
<thead>
<tr>
<th>CPU2017 License</th>
<th>Test Date</th>
<th>Test Sponsor</th>
<th>Hardware Availability</th>
<th>Software Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>Apr-2021</td>
<td>Dell Inc.</td>
<td>Apr-2021</td>
<td>Feb-2021</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tested by</th>
<th>Dell Inc.</th>
</tr>
</thead>
</table>

**SPECrate®2017_int_base = 417**

**SPECrate®2017_int_peak = 432**

---

### Compiler Version Notes (Continued)

64, Version 2021.1 Build 20201112_000000
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---

<table>
<thead>
<tr>
<th>C</th>
<th>502.gcc_r(peak)</th>
</tr>
</thead>
</table>

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---

<table>
<thead>
<tr>
<th>C</th>
<th>500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak) 557.xz_r(base)</th>
</tr>
</thead>
</table>

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.

---

<table>
<thead>
<tr>
<th>C</th>
<th>500.perlbench_r(peak) 557.xz_r(peak)</th>
</tr>
</thead>
</table>

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.

---

<table>
<thead>
<tr>
<th>C</th>
<th>502.gcc_r(peak)</th>
</tr>
</thead>
</table>

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2021.1 Build 20201113
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

---

<table>
<thead>
<tr>
<th>C</th>
<th>500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak) 557.xz_r(base)</th>
</tr>
</thead>
</table>

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.

---

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

Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)

SPECrate®2017_int_base = 417
SPECrate®2017_int_peak = 432

Compiler Version Notes (Continued)

C++     | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base, peak)
         | 531.deepsjeng_r(base, peak) 541.leela_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.

Fortran | 548.exchange2_r(base, peak)

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.

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifort

Base Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -DSPEC_LP64
505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64
541.leela_r: -DSPEC_LP64
548.exchange2_r: -DSPEC_LP64
557.xz_r: -DSPEC_LP64
**SPEC CPU®2017 Integer Rate Result**

**Dell Inc.**

PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)

**SPECrate®2017_int_base = 417**

**SPECrate®2017_int_peak = 432**

**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.  
**Test Date:** Apr-2021  
**Hardware Availability:** Apr-2021  
**Software Availability:** Feb-2021

---

**Base Optimization Flags**

**C benchmarks:**
```bash
-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-mbranches-within-32B-boundaries
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin
-lqkmalloc
```

**C++ benchmarks:**
```bash
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-mbranches-within-32B-boundaries
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin
-lqkmalloc
```

**Fortran benchmarks:**
```bash
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ipo -no-prec-div
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte
-auto -mbranches-within-32B-boundaries
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin
-lqkmalloc
```

---

**Peak Compiler Invocation**

**C benchmarks (except as noted below):**  
```bash
icx
```

```bash
500.perlbench_r: icc
557.xz_r: icc
```

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

**Fortran benchmarks:**  
```bash
ifort
```

---

**Peak Portability Flags**

```bash
500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -D_FILE_OFFSET_BITS=64
505.mcf_r: -DSPEC_LP64
```

(Continued on next page)
Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)

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

Peak Portability Flags (Continued)

520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64
541.leea_r: -DSPEC_LP64
548.exchange2_r: -DSPEC_LP64
557.xz_r: -DSPEC_LP64

Peak Optimization Flags

C benchmarks:

500.perlbench_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2)
-xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -fno-strict-overflow
-mbranches-within-32B-boundaries
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin
-lqkmalloc

502.gcc_r: -m32
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/ia32_lin
-std=gnu89 -Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX512 -flto
-Ofast(pass 1) -O3 -ffast-math -qopt-mem-layout-trans=4
-mbranches-within-32B-boundaries
-L/usr/local/jemalloc32-5.0.1/lib -ljemalloc

505.mcf_r: basepeak = yes

525.x264_r: -w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -flto
-O3 -ffast-math -qopt-mem-layout-trans=4 -fno-alias
-mbranches-within-32B-boundaries
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin
-lqkmalloc

557.xz_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -mbranches-within-32B-boundaries
-L/opt/intel/oneapi/compiler/2021.1.1/linux/compiler/lib/intel64_lin
-lqkmalloc

C++ benchmarks:

520.omnetpp_r: basepeak = yes

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

### Dell Inc.
**PowerEdge MX750c (Intel Xeon Platinum 8352Y, 2.20 GHz)**

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base = 417</th>
<th>SPECrate®2017_int_peak = 432</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU2017 License:</strong> 55</td>
<td><strong>Test Date:</strong> Apr-2021</td>
</tr>
<tr>
<td><strong>Test Sponsor:</strong> Dell Inc.</td>
<td><strong>Hardware Availability:</strong> Apr-2021</td>
</tr>
<tr>
<td><strong>Tested by:</strong> Dell Inc.</td>
<td><strong>Software Availability:</strong> Feb-2021</td>
</tr>
</tbody>
</table>

### Peak Optimization Flags (Continued)

- **523.xalancbmk_r**: basepeak = yes
- **531.deepsjeng_r**: basepeak = yes
- **541.leela_r**: basepeak = yes

### Fortran benchmarks:

- **548.exchange2_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:


---

SPEC CPU and SPECrate 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 v1.1.7 on 2021-04-03 19:37:00-0400.
Originally published on 2021-05-18.