## CPU2017 Integer Rate Result

**Dell Inc.**

**PowerEdge MX750c (Intel Xeon Platinum 8358, 2.60 GHz)**

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU Name:</strong> Intel Xeon Platinum 8358</td>
<td><strong>OS:</strong> Red Hat Enterprise Linux 8.2 (Ootpa)</td>
</tr>
<tr>
<td><strong>Max MHz:</strong> 3400</td>
<td><strong>Compiler:</strong> 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</td>
</tr>
<tr>
<td><strong>Nominal:</strong> 2600</td>
<td><strong>Parallel:</strong> No</td>
</tr>
<tr>
<td><strong>Enabled:</strong> 64 cores, 2 chips, 2 threads/core</td>
<td><strong>Firmware:</strong> Version 1.1.0 released Mar-2021</td>
</tr>
<tr>
<td><strong>Orderable:</strong> 1.2 chips</td>
<td><strong>File System:</strong> tmpfs</td>
</tr>
<tr>
<td><strong>Cache L1:</strong> 32 KB I + 48 KB D on chip per core</td>
<td><strong>System State:</strong> Run level 3 (multi-user)</td>
</tr>
<tr>
<td><strong>L2:</strong> 1.25 MB I+D on chip per core</td>
<td><strong>Base Pointers:</strong> 64-bit</td>
</tr>
<tr>
<td><strong>L3:</strong> 48 MB I+D on chip per chip</td>
<td><strong>Peak Pointers:</strong> 32/64-bit</td>
</tr>
<tr>
<td><strong>Other:</strong> None</td>
<td><strong>Other:</strong> jemalloc memory allocator V5.0.1</td>
</tr>
<tr>
<td><strong>Memory:</strong> 1 TB (32 x 32 GB 2Rx8 PC4-3200AA-R)</td>
<td><strong>Power Management:</strong> BIOS and OS set to prefer performance at the cost of additional power usage.</td>
</tr>
<tr>
<td><strong>Storage:</strong> 125 GB on tmpfs</td>
<td><strong>Other:</strong> None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Software Availability: Apr-2021</th>
<th><strong>Test Date:</strong> Apr-2021</th>
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<td><strong>Software Availability:</strong> Feb-2021</td>
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### SPEC CPU2017 Test Results

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>SPECrate®2017_int_base</th>
<th>SPECrate®2017_int_peak</th>
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<tbody>
<tr>
<td>Perlbench</td>
<td>128</td>
<td>468</td>
<td>486</td>
</tr>
<tr>
<td>GCC</td>
<td>128</td>
<td>356</td>
<td>380</td>
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<tr>
<td>Mcf</td>
<td>128</td>
<td>585</td>
<td>755</td>
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<tr>
<td>Omnetpp</td>
<td>128</td>
<td>265</td>
<td>332</td>
</tr>
<tr>
<td>XalanBmk</td>
<td>128</td>
<td></td>
<td>585</td>
</tr>
<tr>
<td>X264</td>
<td>128</td>
<td>372</td>
<td>379</td>
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<tr>
<td>Deepsjeng</td>
<td>128</td>
<td></td>
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<tr>
<td>Leela</td>
<td>128</td>
<td>261</td>
<td>280</td>
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<tr>
<td>Exchange2</td>
<td>128</td>
<td>985</td>
<td>1030</td>
</tr>
<tr>
<td>Xz</td>
<td>128</td>
<td>255</td>
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</tbody>
</table>

**Tested by:** Dell Inc. | **Copyright 2017-2021 Standard Performance Evaluation Corporation** | **Software Availability:** Feb-2021 | **Hardware Availability:** Apr-2021 | **Test Date:** Apr-2021 | **Test Sponsor:** Dell Inc. | **Tested by:** Dell Inc.
# SPEC CPU®2017 Integer Rate Result

## Dell Inc.

PowerEdge MX750c (Intel Xeon Platinum 8358, 2.60 GHz)

### SPECrate®2017_int_base = 468

### SPECrate®2017_int_peak = 486

---

### 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>
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<tr>
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<th>Seconds</th>
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<th>Seconds</th>
<th>Ratio</th>
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<tr>
<td>500.perlbench_r</td>
<td>128</td>
<td>622</td>
<td>328</td>
<td>625</td>
<td>326</td>
<td>128</td>
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<tr>
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<td>505.mcf_r</td>
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<td>128</td>
<td>634</td>
<td>265</td>
<td>631</td>
<td>266</td>
<td>128</td>
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<tr>
<td>523.xalancbmk_r</td>
<td>128</td>
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<td>585</td>
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<td>525.x264_r</td>
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<tr>
<td>531.deepsjeng_r</td>
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<td>387</td>
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<tr>
<td>541.leela_r</td>
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<td>571</td>
<td>372</td>
<td>570</td>
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<tr>
<td>548.exchange2_r</td>
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<td>1020</td>
<td>327</td>
<td>1020</td>
<td>128</td>
<td>528</td>
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<td>557.xz_r</td>
<td>128</td>
<td>528</td>
<td>262</td>
<td>530</td>
<td>261</td>
<td>128</td>
<td>528</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:

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) is mitigated in the system as tested and documented.

(Continued on next page)
General Notes (Continued)

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 numacl
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

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 e8664e66d2d7080afeaa89d4b38e2f1c
running on localhost.localdomain Sat Apr 3 18:36:44 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 8358 CPU @ 2.60GHz
   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.)

(Continued on next page)
SPEC CPU®2017 Integer Rate Result
Copyright 2017-2021 Standard Performance Evaluation Corporation

Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8358, 2.60 GHz)

SPECrate®2017_int_base = 468
SPECrate®2017_int_peak = 486

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

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

Platform Notes (Continued)

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:
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 8358 CPU @ 2.60GHz
Stepping: 6
CPU MHz: 1874.653
BogoMIPS: 5200.00
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: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts dtc
cli flush mxr fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant_tsc 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
xtrm pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 invpcid_single ssbd

(Continued on next page)
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Platform Notes (Continued)

mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid fsgsbase
tsc_adjust bm1 hle avx2 smep bmi2 erms invpcid rtm cqmg rdt_a avx512f avx512dq
rdseed adx smap avx512ifma clflushopt clwb intel_pt avx512cd sha ni avx512bw
avx512vl xsaveopt xsavevc xgetbv1 xsaves cmq_llc cmq_occup_llc cmq_mbm_total
cmq_mbm_local wboinvd dtherm ida arat pln pln pts avx512vbmi umip pku ospke
avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq
la57 rdpid md_clear pconfig flush_l1d 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: 257436 MB
node 0 free: 257013 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: 258040 MB
node 1 free: 257810 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: 258013 MB
node 2 free: 248425 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
103 107 111 115 123 127
node 3 size: 258038 MB
node 3 free: 257804 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: 1056285452 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

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

From /etc/*release* /etc/*version*
os-release:
Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8358, 2.60 GHz)

SPECCPU®2017 Integer Rate Result

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Tested by: Dell Inc.

Platform Notes (Continued)

NAME="Red Hat Enterprise Linux"
VERSION="8.2 (Ootpa)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="8.2"
PLATFORM_ID="platform:el8"
PRETTY_NAME="Red Hat Enterprise Linux 8.2 (Ootpa)"
ANSI_COLOR="0;31"

redhat-release: Red Hat Enterprise Linux release 8.2 (Ootpa)
system-release: Red Hat Enterprise Linux release 8.2 (Ootpa)
system-release-cpe: cpe:/o:redhat:enterprise_linux:8.2:ga

uname -a:
Linux localhost.localdomain 4.18.0-193.el8.x86_64 #1 SMP Fri Mar 27 14:35:58 UTC 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): Mitigation: Speculative Store Bypass disabled via prctl and seccomp
CVE-2018-3639 (Speculative Store Bypass): Mitigation: usercopy/swapgs barriers and __user pointer sanitization
CVE-2017-5753 (Spectre variant 1): Mitigation: Enhanced IBRS, IBPB:
conditional, RSB filling
CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS, IBPB:
conditional, RSB filling
CVE-2020-0543 (Special Register Buffer Data Sampling): No status reported
CVE-2019-11135 (TSX Asynchronous Abort): Not affected

run-level 3 Apr 3 18:34

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 this section. The 'dmidecode' program reads system data which is "intended to allow

(Continued on next page)
Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8358, 2.60 GHz)

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

Platform Notes (Continued)

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:
15x 00AD063200AD HMA84GR7CJR4N-XN 32 GB 2 rank 3200
17x 00AD063200AD HMAA4GR7AJR8N-XN 32 GB 2 rank 3200

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

==============================================================================
C       | 500.perlbench_r(peak) 557.xz_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.
------------------------------------------------------------------------------

==============================================================================
C       | 502.gcc_r(peak)
------------------------------------------------------------------------------
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.
------------------------------------------------------------------------------

==============================================================================
C       | 500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base, peak)
          | 525.x264_r(base, peak) 557.xz_r(base)
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2021.1 Build 20201113
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C       | 500.perlbench_r(peak) 557.xz_r(peak)
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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)
### Compiler Version Notes (Continued)

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<th>502.gcc_r(peak)</th>
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<tbody>
<tr>
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| Test Sponsor: | Dell Inc. |
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<td>============================================================================</td>
<td>-------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Fortran</td>
<td>548.exchange2_r(base, peak)</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Intel(R) Fortran Intel(R) 64 Compiler Classic for applications running on Intel(R) 64, Version 2021.1 Build 20201112_000000</td>
<td>Copyright (C) 1985-2020 Intel Corporation. All rights reserved.</td>
</tr>
<tr>
<td>==============================================================================</td>
<td>-----------------------------------------------------------------------------------------------</td>
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### Base Compiler Invocation

- **C benchmarks:** icx
- **C++ benchmarks:** icpx
- **Fortran benchmarks:** ifort

### Base Portability Flags

<table>
<thead>
<tr>
<th>500.perlbench_r: -DSPEC_LP64  -DSPEC_LINUX_X64</th>
</tr>
</thead>
<tbody>
<tr>
<td>502.gcc_r: -DSPEC_LP64</td>
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<tr>
<td>505.mcf_r: -DSPEC_LP64</td>
</tr>
<tr>
<td>520.omnetpp_r: -DSPEC_LP64</td>
</tr>
<tr>
<td>523.xalancmk_r: -DSPEC_LP64  -DSPEC_LINUX</td>
</tr>
<tr>
<td>525.x264_r: -DSPEC_LP64</td>
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<tr>
<td>531.deepsjeng_r: -DSPEC_LP64</td>
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<tr>
<td>541.leela_r: -DSPEC_LP64</td>
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<tr>
<td>548.exchange2_r: -DSPEC_LP64</td>
</tr>
<tr>
<td>557.xz_r: -DSPEC_LP64</td>
</tr>
</tbody>
</table>
SPEC CPU®2017 Integer Rate Result

Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8358, 2.60 GHz)

SPECrate®2017_int_base = 468
SPECrate®2017_int_peak = 486

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:
-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math
-flt0 -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:
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flt0
-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:
-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):
icx
500.perlbench_r:icx
557.xz_r:icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifort

Peak Portability Flags

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)
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.leela_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/jemalloc32-5.0.0.1/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
**SPEC CPU®2017 Integer Rate Result**

**Dell Inc.**  
PowerEdge MX750c (Intel Xeon Platinum 8358, 2.60 GHz)  

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

**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:


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For questions about this result, please contact the tester. For other inquiries, please contact info@spec.org.

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