Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352M, 2.30 GHz)

SPECrate®2017_int_base = 401
SPECrate®2017_int_peak = 416

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

Dell Inc.
GHz)

Hardware
CPU Name: Intel Xeon Platinum 8352M
Max MHz: 3500
Nominal: 2300
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

Software
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 1.3.8 released Aug-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.
SPEC CPU®2017 Integer Rate Result

Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352M, 2.30 GHz)

SPECrate®2017_int_base = 401
SPECrate®2017_int_peak = 416

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></td>
<td>Base</td>
<td></td>
<td></td>
<td>Base</td>
<td></td>
<td></td>
<td></td>
<td>Base</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500.perlbench_r</td>
<td>128</td>
<td>734</td>
<td>278</td>
<td>733</td>
<td>278</td>
<td></td>
<td></td>
<td>128</td>
<td>633</td>
<td>322</td>
<td>632</td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>128</td>
<td>573</td>
<td>316</td>
<td>573</td>
<td>317</td>
<td></td>
<td></td>
<td>128</td>
<td>484</td>
<td>374</td>
<td>481</td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>128</td>
<td>322</td>
<td>643</td>
<td>322</td>
<td>643</td>
<td></td>
<td></td>
<td>128</td>
<td>322</td>
<td>643</td>
<td>322</td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>128</td>
<td>688</td>
<td>244</td>
<td>694</td>
<td>242</td>
<td></td>
<td></td>
<td>128</td>
<td>688</td>
<td>244</td>
<td>694</td>
</tr>
<tr>
<td>523.xalancbmk_r</td>
<td>128</td>
<td>274</td>
<td>493</td>
<td>273</td>
<td>495</td>
<td></td>
<td></td>
<td>128</td>
<td>274</td>
<td>493</td>
<td>273</td>
</tr>
<tr>
<td>525.x264_r</td>
<td>128</td>
<td>270</td>
<td>830</td>
<td>271</td>
<td>828</td>
<td></td>
<td></td>
<td>128</td>
<td>258</td>
<td>868</td>
<td>259</td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>128</td>
<td>458</td>
<td>320</td>
<td>459</td>
<td>320</td>
<td></td>
<td></td>
<td>128</td>
<td>458</td>
<td>320</td>
<td>459</td>
</tr>
<tr>
<td>541.leela_r</td>
<td>128</td>
<td>666</td>
<td>318</td>
<td>674</td>
<td>315</td>
<td></td>
<td></td>
<td>128</td>
<td>666</td>
<td>318</td>
<td>674</td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>128</td>
<td>388</td>
<td>865</td>
<td>388</td>
<td>864</td>
<td></td>
<td></td>
<td>128</td>
<td>388</td>
<td>865</td>
<td>388</td>
</tr>
<tr>
<td>557.xz_r</td>
<td>128</td>
<td>615</td>
<td>225</td>
<td>617</td>
<td>224</td>
<td></td>
<td></td>
<td>128</td>
<td>615</td>
<td>225</td>
<td>617</td>
</tr>
</tbody>
</table>

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/cpu2017-1.1.8-ic2021.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.8-ic2021.1/lib/ia32:/mnt/ramdisk/cpu2017-1.1.8-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
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
```

(Continued on next page)
Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352M, 2.30 GHz)

<table>
<thead>
<tr>
<th>SPEC CPU®2017 Integer Rate Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPECrate®2017_int_base</strong> = 401</td>
</tr>
<tr>
<td><strong>SPECrate®2017_int_peak</strong> = 416</td>
</tr>
</tbody>
</table>

**General Notes (Continued)**

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  

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 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
- 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 982a61ec0915b55891ef0e16a6cfc64d  
running on localhost.localdomain Fri Oct 22 22:50:55 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 8352M CPU @ 2.30GHz  
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 8352M, 2.30 GHz)

SPEC CPU®2017 Integer Rate Result

Copyright 2017-2021 Standard Performance Evaluation Corporation

SPECrate®2017_int_base = 401
SPECrate®2017_int_peak = 416

CPU2017 License: 55
Test Sponsor: Dell Inc.
Test Date: Oct-2021
Hardware Availability: Jul-2021
Tested by: Dell Inc.
Software Availability: Dec-2020

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 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
CPU family: 6
Model: 106
Model name: Intel(R) Xeon(R) Platinum 8352M CPU @ 2.30GHz
Stepping: 6
CPU MHz: 2388.664
BogoMIPS: 4600.00
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 acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdcclgb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf npi pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16 xtpr pdccl pcd clid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave

(Continued on next page)
Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352M, 2.30 GHz)

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

SPECrate®2017_int_base = 401
SPECrate®2017_int_peak = 416

Test Sponsor: Dell Inc.
Test Date: Oct-2021
Software Availability: Dec-2020

CPU2017 License: 55
Tested by: Dell Inc.
Hardware Availability: Jul-2021

Platform Notes (Continued)

avx f16c rdrand lahf_lm abm 3dnopwrepfch cpuid_fault epb cat_l3 invpcid_single
intel_pinn ssbd mba ibrs ibpb stibp ibrs_enhanced fsqsbse tsc_adjust bmi1 hle avx2
smep bmi2 erms invpcid cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma
ciflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavce xgetbv1
xsavec cqm_llc cqm_occup_llc cqm_mbb_total cqm_mbb_local split_lock_detect wbnoinvd
dtherm ida arat pln pts avx512vbmi umip pku ospke avx512_vbmi2 gfini vaes vplmulqdq
avx512_vnni avx512_bitalg tme avx512_vpopcntdq la57 rdpid md_clear pconfig flush_lld
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: 124402 MB
node 0 free: 127870 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: 124928 MB
node 1 free: 119584 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: 125240 MB
node 2 free: 128620 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: 125046 MB
node 3 free: 128678 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: 527792664 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)
SPEC CPU®2017 Integer Rate Result

Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352M, 2.30 GHz)

SPECrate®2017_int_base = 401
SPECrate®2017_int_peak = 416

<table>
<thead>
<tr>
<th>CPU2017 License: 55</th>
<th>Test Date: Oct-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Dell Inc.</td>
<td>Hardware Availability: Jul-2021</td>
</tr>
<tr>
<td>Tested by: Dell Inc.</td>
<td>Software Availability: Dec-2020</td>
</tr>
</tbody>
</table>

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 Oct 22 22:45
```

```
SPEC is set to: /mnt/ramdisk/cpu2017-1.1.8-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 3.2 follows. WARNING: Use caution when you

(Continued on next page)
Platform Notes (Continued)

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

BIOS:
BIOS Vendor: Dell Inc.
BIOS Version: 1.3.8
BIOS Date: 08/31/2021
BIOS Revision: 1.3

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
| C   | 500.perlbench_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, 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   | 500.perlbench_r(peak)          |
|--------------------------|
Intel(R) C Intel(R) 64 Compiler Classic for applications running on Intel(R)
Compiler Version Notes (Continued)

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, 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       | 500.perlbench_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, 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.

(Continued on next page)
## Dell Inc.

**Model:** PowerEdge MX750c (Intel Xeon Platinum 8352M, 2.30 GHz)

<table>
<thead>
<tr>
<th>CPU2017 License</th>
<th>Dell Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor:</td>
<td>Dell Inc.</td>
</tr>
<tr>
<td>Tested by:</td>
<td>Dell Inc.</td>
</tr>
<tr>
<td>Test Date:</td>
<td>Oct-2021</td>
</tr>
<tr>
<td>Hardware Availability</td>
<td>Jul-2021</td>
</tr>
<tr>
<td>Software Availability</td>
<td>Dec-2020</td>
</tr>
</tbody>
</table>

### Compiler Version Notes (Continued)

<table>
<thead>
<tr>
<th>Compiler</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>C++</td>
<td>520.omnetpp_r(base, peak) 523.xalancbmk_r(base, peak) 531.deepsjeng_r(base, peak) 541.leela_r(base, peak)</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Fortran</td>
<td>548.exchange2_r(base, peak)</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 Copyright (C) 1985-2020 Intel Corporation. All rights reserved.</td>
<td></td>
</tr>
</tbody>
</table>

### Base Compiler Invocation

**C benchmarks:**
- icx

**C++ benchmarks:**
- icpx

**Fortran benchmarks:**
- ifort

### Base Portability Flags

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

Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352M, 2.30 GHz)

SPECrate®2017_int_base = 401
SPECrate®2017_int_peak = 416

<table>
<thead>
<tr>
<th>CPU2017 License: 55</th>
<th>Test Date: Oct-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Dell Inc.</td>
<td>Hardware Availability: Jul-2021</td>
</tr>
<tr>
<td>Tested by: Dell Inc.</td>
<td>Software Availability: Dec-2020</td>
</tr>
</tbody>
</table>

### Base Optimization Flags

**C benchmarks:**
- `-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:**
- `-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:**
- `-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: icc`

**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.mcfr: -DSPEC_LP64`
- `520.omnetpp_r: -DSPEC_LP64`
- `523.xalancbmkr: -DSPEC_LP64 -DSPEC_LINUX`

(Continued on next page)
Peak Portability Flags (Continued)

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
-O2(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: basepeak = yes

C++ benchmarks:

520.omnetpp_r: basepeak = yes

523.xalancbmk_r: basepeak = yes

531.deepsjeng_r: basepeak = yes

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

### Dell Inc.
PowerEdge MX750c (Intel Xeon Platinum 8352M, 2.30 GHz)

<table>
<thead>
<tr>
<th>SPECrate 2017_int_base</th>
<th>SPECrate 2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>401</td>
<td>416</td>
</tr>
</tbody>
</table>

#### CPU2017 License: 55

<table>
<thead>
<tr>
<th>Test Sponsor:</th>
<th>Dell Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tested by:</td>
<td>Dell Inc.</td>
</tr>
</tbody>
</table>

#### Test Date: Oct-2021

<table>
<thead>
<tr>
<th>Hardware Availability:</th>
<th>Jul-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Availability:</td>
<td>Dec-2020</td>
</tr>
</tbody>
</table>

### Peak Optimization Flags (Continued)

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:

http://www.spec.org/cpu2017/flags/Intel-ic2021-official-linux64_revA.xml
http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-ICX-rev1.4.xml

---

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 v1.1.8 on 2021-10-22 22:50:54-0400.
Report generated on 2021-12-07 17:04:01 by CPU2017 PDF formatter v6442.
Originally published on 2021-12-07.