



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Dell Inc.

SPECrate®2017\_int\_base = 598

PowerEdge MX760c (Intel Xeon Platinum 8452Y)

SPECrate®2017\_int\_peak = 614

CPU2017 License: 6573

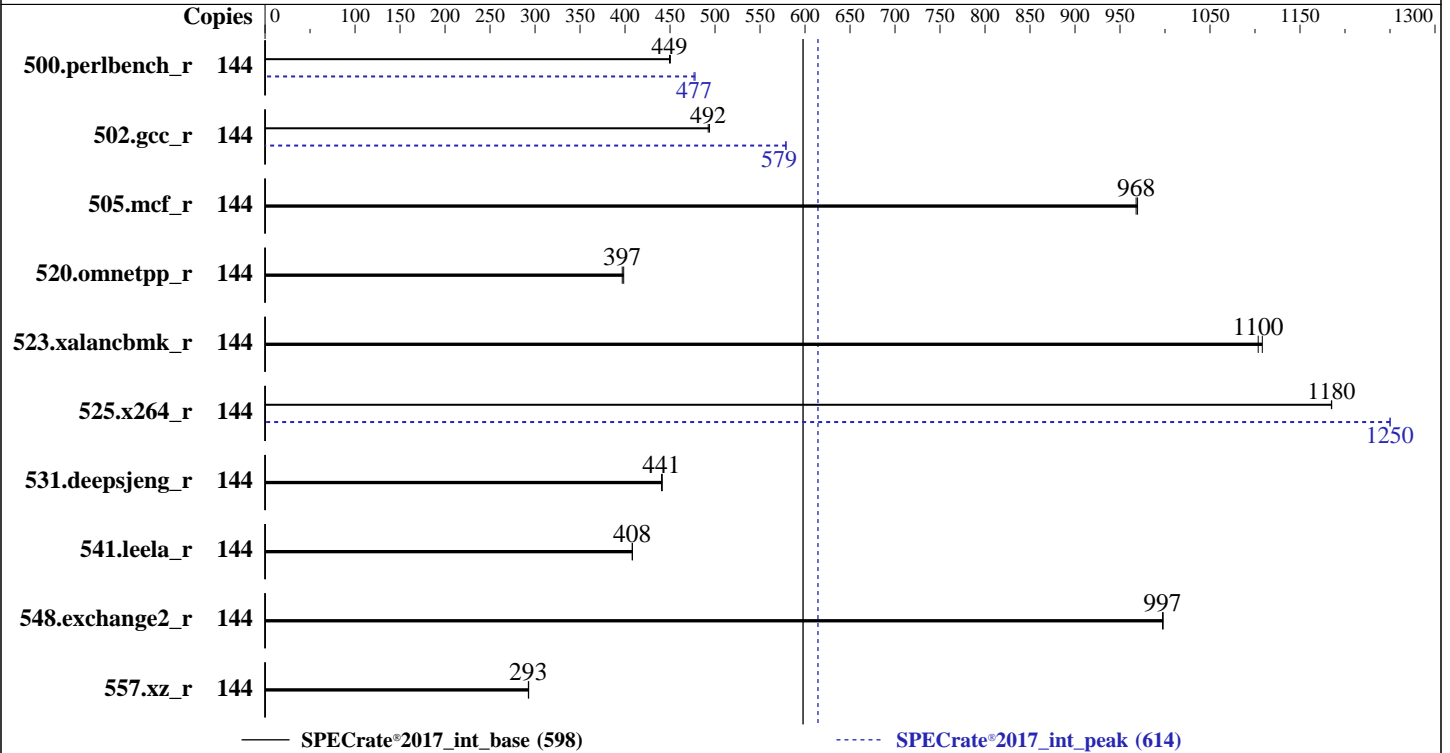
Test Date: Dec-2022

Test Sponsor: Dell Inc.

Hardware Availability: Feb-2023

Tested by: Dell Inc.

Software Availability: Nov-2022



### Hardware

CPU Name: Intel Xeon Platinum 8452Y  
 Max MHz: 3200  
 Nominal: 2000  
 Enabled: 72 cores, 2 chips, 2 threads/core  
 Orderable: 1,2 chips  
 Cache L1: 32 KB I + 48 KB D on chip per core  
 L2: 2 MB I+D on chip per core  
 L3: 67.5 MB I+D on chip per chip  
 Other: None  
 Memory: 1 TB (16 x 64 GB 2Rx4 PC5-4800B-R)  
 Storage: 125 GB on tmpfs  
 Other: None

### Software

OS: Red Hat Enterprise Linux 8.7 (Ootpa)  
 4.18.0-425.3.1.el8.x86\_64  
 Compiler: C/C++: Version 2022.1 of Intel oneAPI DPC++/C++  
 Compiler for Linux;  
 Fortran: Version 2022.1 of Intel Fortran Compiler  
 for Linux;  
 Parallel: No  
 Firmware: Version 0.3.2 released Nov-2022  
 File System: tmpfs  
 System State: Run level 5 (graphical 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

Copyright 2017-2024 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2017\_int\_base = 598

PowerEdge MX760c (Intel Xeon Platinum 8452Y)

SPECrate®2017\_int\_peak = 614

CPU2017 License: 6573  
Test Sponsor: Dell Inc.  
Tested by: Dell Inc.

Test Date: Dec-2022  
Hardware Availability: Feb-2023  
Software Availability: Nov-2022

## Results Table

| Benchmark       | Base   |            |             |            |             |         |       | Peak   |            |            |            |             |         |       |
|-----------------|--------|------------|-------------|------------|-------------|---------|-------|--------|------------|------------|------------|-------------|---------|-------|
|                 | Copies | Seconds    | Ratio       | Seconds    | Ratio       | Seconds | Ratio | Copies | Seconds    | Ratio      | Seconds    | Ratio       | Seconds | Ratio |
| 500.perlbench_r | 144    | <b>510</b> | <b>449</b>  | 509        | 450         |         |       | 144    | 480        | 478        | <b>481</b> | <b>477</b>  |         |       |
| 502.gcc_r       | 144    | <b>414</b> | <b>492</b>  | 413        | 494         |         |       | 144    | 352        | 579        | <b>352</b> | <b>579</b>  |         |       |
| 505.mcf_r       | 144    | <b>240</b> | <b>968</b>  | 240        | 970         |         |       | 144    | <b>240</b> | <b>968</b> | 240        | 970         |         |       |
| 520.omnetpp_r   | 144    | 474        | 399         | <b>476</b> | <b>397</b>  |         |       | 144    | 474        | 399        | <b>476</b> | <b>397</b>  |         |       |
| 523.xalancbmk_r | 144    | 137        | 1110        | <b>138</b> | <b>1100</b> |         |       | 144    | 137        | 1110       | <b>138</b> | <b>1100</b> |         |       |
| 525.x264_r      | 144    | <b>213</b> | <b>1180</b> | 213        | 1190        |         |       | 144    | 202        | 1250       | <b>202</b> | <b>1250</b> |         |       |
| 531.deepsjeng_r | 144    | <b>375</b> | <b>441</b>  | 374        | 441         |         |       | 144    | <b>375</b> | <b>441</b> | 374        | 441         |         |       |
| 541.leela_r     | 144    | <b>585</b> | <b>408</b>  | 584        | 408         |         |       | 144    | <b>585</b> | <b>408</b> | 584        | 408         |         |       |
| 548.exchange2_r | 144    | <b>378</b> | <b>997</b>  | 378        | 998         |         |       | 144    | <b>378</b> | <b>997</b> | 378        | 998         |         |       |
| 557.xz_r        | 144    | <b>532</b> | <b>293</b>  | 531        | 293         |         |       | 144    | <b>532</b> | <b>293</b> | 531        | 293         |         |       |

SPECrate®2017\_int\_base = 598

SPECrate®2017\_int\_peak = 614

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

## Compiler Notes

SPEC has ruled that the compiler used for this result was performing a compilation that specifically improves the performance of the 523.xalancbmk\_r / 623.xalancbmk\_s benchmarks using a priori knowledge of the SPEC code and dataset to perform a transformation that has narrow applicability.

In order to encourage optimizations that have wide applicability (see rule 1.4 [https://www.spec.org/cpu2017/Docs/runrules.html#rule\\_1.4](https://www.spec.org/cpu2017/Docs/runrules.html#rule_1.4)), SPEC will no longer publish results using this optimization.

This result is left in the SPEC results database for historical reference.

## 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-ic2022.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.8-ic2022.1/lib/ia32:/mnt/ramdisk/cpu2017-1.1.8-ic2022.1/je5.0.1-32"
MALLOC_CONF = "retain:true"
```



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2017\_int\_base = 598

PowerEdge MX760c (Intel Xeon Platinum 8452Y)

SPECrate®2017\_int\_peak = 614

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Dec-2022

Hardware Availability: Feb-2023

Software Availability: Nov-2022

## General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM  
 memory using Red Hat Enterprise Linux 8.4  
 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  
 sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>

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:

ADDC Setting : Disabled  
 DIMM Self Healing on  
 Uncorrectable Memory Error : Disabled  
 Virtualization Technology : Disabled  
 Sub NUMA Cluster : 4-way Clustering  
 DCU Streamer Prefetcher : Disabled  
 LLC Prefetch : Disabled  
 Dead Line LLC Alloc : Disabled  
 Optimizer Mode : Enabled

System Profile : Custom  
 CPU Power Management : Maximum Performance  
 CIE : Disabled  
 C States : Autonomous  
 Memory Patrol Scrub : Disabled  
 Energy Efficiency Policy : Performance  
 PCI ASPM L1 Link  
 Power Management : Disabled

Sysinfo program /mnt/ramdisk/cpu2017-1.1.8-ic2022.1/bin/sysinfo  
 Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16acafc64d  
 running on localhost.localdomain Sat Dec 10 02:48:40 2022

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 8452Y  
 2 "physical id"s (chips)  
 144 "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 : 36

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2017\_int\_base = 598

PowerEdge MX760c (Intel Xeon Platinum 8452Y)

SPECrate®2017\_int\_peak = 614

CPU2017 License: 6573  
Test Sponsor: Dell Inc.  
Tested by: Dell Inc.

Test Date: Dec-2022  
Hardware Availability: Feb-2023  
Software Availability: Nov-2022

## Platform Notes (Continued)

```
siblings : 72
physical 0: cores 0 1 2 3 4 5 6 7 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
26 27 28 29 30 31 32 33 34 35
physical 1: cores 0 1 2 3 4 5 6 7 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
26 27 28 29 30 31 32 33 34 35
```

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): 144
On-line CPU(s) list: 0-143
Thread(s) per core: 2
Core(s) per socket: 36
Socket(s): 2
NUMA node(s): 8
Vendor ID: GenuineIntel
BIOS Vendor ID: Intel
CPU family: 6
Model: 143
Model name: Intel(R) Xeon(R) Platinum 8452Y
BIOS Model name: Intel(R) Xeon(R) Platinum 8452Y
Stepping: 8
CPU MHz: 2000.000
BogoMIPS: 4000.00
L1d cache: 48K
L1i cache: 32K
L2 cache: 2048K
L3 cache: 69120K
NUMA node0 CPU(s): 0,4,8,12,16,20,24,28,32,72,76,80,84,88,92,96,100,104
NUMA node1 CPU(s): 36,40,44,48,52,56,60,64,68,108,112,116,120,124,128,132,136,140
NUMA node2 CPU(s): 2,6,10,14,18,22,26,30,34,74,78,82,86,90,94,98,102,106
NUMA node3 CPU(s): 38,42,46,50,54,58,62,66,70,110,114,118,122,126,130,134,138,142
NUMA node4 CPU(s): 1,5,9,13,17,21,25,29,33,73,77,81,85,89,93,97,101,105
NUMA node5 CPU(s): 37,41,45,49,53,57,61,65,69,109,113,117,121,125,129,133,137,141
NUMA node6 CPU(s): 3,7,11,15,19,23,27,31,35,75,79,83,87,91,95,99,103,107
NUMA node7 CPU(s): 39,43,47,51,55,59,63,67,71,111,115,119,123,127,131,135,139,143
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 pdpe1gb rdtscp
lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid
aperfmpperf tsc_known_freq pni pclmulqdq dtes64 monitor ds_cpl smx est tm2 ssse3 sdbg
fma cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes
xsave avx fl16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 cat_l2 cdp_l3
invpcid_single cdp_l2 ssbd mba ibrs ibpb stibp ibrs_enhanced fsgsbase tsc_adjust
bmi1 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 xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local
split_lock_detect avx_vnni avx512_bf16 wbnoinvd dtherm ida arat pln pts hfi
avx512vbmi umip pku ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq avx512_vnni
avx512_bitalg tme avx512_vpopcntdq la57 rdpid bus_lock_detect cldemote movdiri
movdir64b enqcmd fsrm md_clear serialize tsxldtrk pconfig arch_lbr amx_bf16
avx512_fp16 amx_tile amx_int8 flush_lld arch_capabilities
```

```
/proc/cpuinfo cache data
cache size : 69120 KB
```

From numactl --hardware

WARNING: a numactl 'node' might or might not correspond to a physical chip.

available: 8 nodes (0-7)

node 0 cpus: 0 4 8 12 16 20 24 28 32 72 76 80 84 88 92 96 100 104

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2017\_int\_base = 598

PowerEdge MX760c (Intel Xeon Platinum 8452Y)

SPECrate®2017\_int\_peak = 614

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Dec-2022

Hardware Availability: Feb-2023

Software Availability: Nov-2022

## Platform Notes (Continued)

```

node 0 size: 128216 MB
node 0 free: 120493 MB
node 1 cpus: 36 40 44 48 52 56 60 64 68 108 112 116 120 124 128 132 136 140
node 1 size: 129019 MB
node 1 free: 128805 MB
node 2 cpus: 2 6 10 14 18 22 26 30 34 74 78 82 86 90 94 98 102 106
node 2 size: 129019 MB
node 2 free: 128789 MB
node 3 cpus: 38 42 46 50 54 58 62 66 70 110 114 118 122 126 130 134 138 142
node 3 size: 129019 MB
node 3 free: 128795 MB
node 4 cpus: 1 5 9 13 17 21 25 29 33 73 77 81 85 89 93 97 101 105
node 4 size: 129019 MB
node 4 free: 127704 MB
node 5 cpus: 37 41 45 49 53 57 61 65 69 109 113 117 121 125 129 133 137 141
node 5 size: 128978 MB
node 5 free: 128685 MB
node 6 cpus: 3 7 11 15 19 23 27 31 35 75 79 83 87 91 95 99 103 107
node 6 size: 129019 MB
node 6 free: 128592 MB
node 7 cpus: 39 43 47 51 55 59 63 67 71 111 115 119 123 127 131 135 139 143
node 7 size: 129008 MB
node 7 free: 128610 MB
node distances:
node  0  1  2  3  4  5  6  7
0:  10 12 12 12 21 21 21 21
1:  12 10 12 12 21 21 21 21
2:  12 12 10 12 21 21 21 21
3:  12 12 12 10 21 21 21 21
4:  21 21 21 21 10 12 12 12
5:  21 21 21 21 12 10 12 12
6:  21 21 21 21 12 12 10 12
7:  21 21 21 21 12 12 12 10

```

```

From /proc/meminfo
MemTotal:      1056053700 kB
HugePages_Total:      0
Hugepagesize:    2048 kB

```

```

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

```

```

From /etc/*release* /etc/*version*
os-release:
NAME="Red Hat Enterprise Linux"
VERSION="8.7 (Ootpa)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="8.7"
PLATFORM_ID="platform:el8"
PRETTY_NAME="Red Hat Enterprise Linux 8.7 (Ootpa)"
ANSI_COLOR="0;31"
redhat-release: Red Hat Enterprise Linux release 8.7 (Ootpa)
system-release: Red Hat Enterprise Linux release 8.7 (Ootpa)
system-release-cpe: cpe:/o:redhat:enterprise_linux:8::baseos

```

```

uname -a:
Linux localhost.localdomain 4.18.0-425.3.1.el8.x86_64 #1 SMP Fri Sep 30 11:45:06 EDT
2022 x86_64 x86_64 x86_64 GNU/Linux

```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2017\_int\_base = 598

PowerEdge MX760c (Intel Xeon Platinum 8452Y)

SPECrate®2017\_int\_peak = 614

CPU2017 License: 6573  
Test Sponsor: Dell Inc.  
Tested by: Dell Inc.

Test Date: Dec-2022  
Hardware Availability: Feb-2023  
Software Availability: Nov-2022

## Platform Notes (Continued)

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  |
| mmio_stale_data:                                       | Not affected  |
| retbleed:  | Not affected  |
| CVE-2018-3639 (Speculative Store Bypass):              | Mitigation: Speculative Store Bypass disabled via prctl                             |
| 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, PBRBS-eIBRS: SW sequence |
| CVE-2020-0543 (Special Register Buffer Data Sampling): | Not affected  |
| CVE-2019-11135 (TSX Asynchronous Abort):               | Not affected  |

run-level 5 Dec 10 02:48

```

SPEC is set to: /mnt/ramdisk/cpu2017-1.1.8-ic2022.1
Filesystem      Type  Size  Used Avail Use% Mounted on
tmpfs            tmpfs 125G  3.6G 122G   3% /mnt/ramdisk

```

```

From /sys/devices/virtual/dmi/id
Vendor:          Dell Inc.
Product:         PowerEdge MX760c
Product Family: PowerEdge
Serial:          MWCFG04

```

Additional information from dmidecode 3.3 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 002C0632002C MTC40F2046S1RC48BA1 64 GB 2 rank 4800

```

```

BIOS:
BIOS Vendor:      Dell Inc.
BIOS Version:     0.3.2
BIOS Date:        11/30/2022
BIOS Revision:    0.3

```

(End of data from sysinfo program)

## Compiler Version Notes

C | 502.gcc\_r(peak)

```

-----
Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
-----

```

```

-----
C | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak) 525.x264_r(base, peak)
  | 557.xz_r(base, peak)
-----

```

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2017\_int\_base = 598

PowerEdge MX760c (Intel Xeon Platinum 8452Y)

SPECrate®2017\_int\_peak = 614

CPU2017 License: 6573  
Test Sponsor: Dell Inc.  
Tested by: Dell Inc.

Test Date: Dec-2022  
Hardware Availability: Feb-2023  
Software Availability: Nov-2022

## Compiler Version Notes (Continued)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

C | 502.gcc\_r(peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

C | 500.perlbench\_r(base, peak) 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 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

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 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

Fortran | 548.exchange2\_r(base, peak)

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

## Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

## Base Portability Flags

500.perlbench\_r: -DSPEC\_LP64 -DSPEC\_LINUX\_X64  
502.gcc\_r: -DSPEC\_LP64  
505.mcf\_r: -DSPEC\_LP64

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2017\_int\_base = 598

PowerEdge MX760c (Intel Xeon Platinum 8452Y)

SPECrate®2017\_int\_peak = 614

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Dec-2022

Hardware Availability: Feb-2023

Software Availability: Nov-2022

## Base 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
```

## 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
-L/usr/local/intel/compiler/2022.1.0/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
-L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/intel64_lin
-lqkmalloc
```

Fortran benchmarks:

```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/intel64_lin
-lqkmalloc
```

## Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx





# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2017\_int\_base = 598

PowerEdge MX760c (Intel Xeon Platinum 8452Y)

SPECrate®2017\_int\_peak = 614

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Dec-2022

Hardware Availability: Feb-2023

Software Availability: Nov-2022

## Peak Portability Flags

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

## Peak Optimization Flags

C benchmarks:

```
500.perlbench_r: -w -std=c11 -m64 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX512
-Ofast -ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fno-strict-overflow
-L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/intel64_lin
-lqkmalloc

502.gcc_r: -m32
-L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/ia32_lin
-std=gnu89 -Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX512
-Ofast -ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -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 -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fno-alias
-L/usr/local/intel/compiler/2022.1.0/linux/compiler/lib/intel64_lin
-lqkmalloc

557.xz_r: basepeak = yes
```

C++ benchmarks:

(Continued on next page)



# SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Dell Inc.

SPECrate®2017\_int\_base = 598

PowerEdge MX760c (Intel Xeon Platinum 8452Y)

SPECrate®2017\_int\_peak = 614

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Dec-2022

Hardware Availability: Feb-2023

Software Availability: Nov-2022

## Peak Optimization Flags (Continued)

520.omnetpp\_r: basepeak = yes

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

<http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64-revB.html>

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.2.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64-revB.xml>

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.2.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](mailto:info@spec.org).

Tested with SPEC CPU®2017 v1.1.8 on 2022-12-09 13:48:40-0500.

Report generated on 2024-01-29 17:18:39 by CPU2017 PDF formatter v6716.

Originally published on 2023-01-17.