



# SPEC CPU®2017 Integer Speed Result

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## Dell Inc.

SPECspeed®2017\_int\_base = 12.9

### PowerEdge XR8720t (Intel Xeon 6776P-B)

SPECspeed®2017\_int\_peak = 13.1

CPU2017 License: 6573

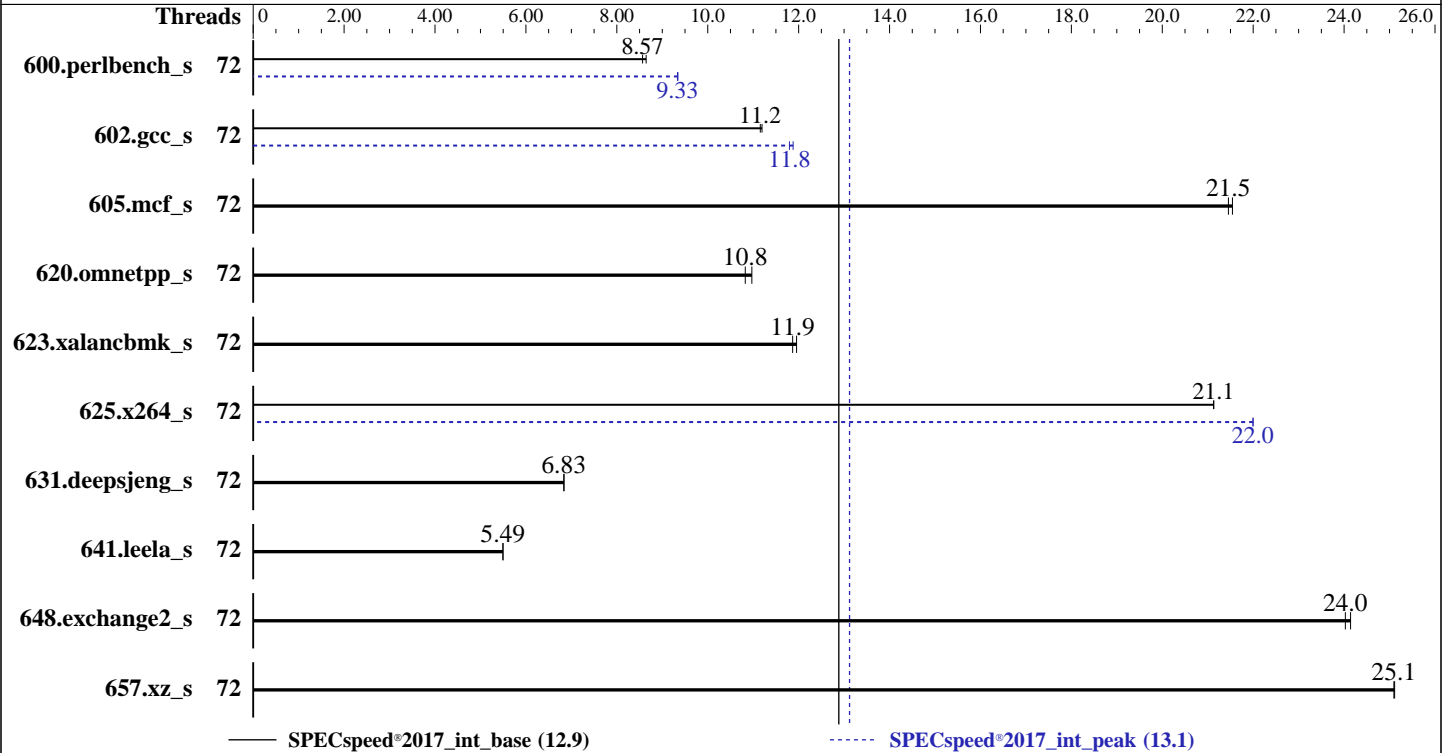
Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Mar-2026

Hardware Availability: Mar-2026

Software Availability: Jun-2025



### Hardware

CPU Name: Intel Xeon 6776P-B  
 Max MHz: 3500  
 Nominal: 2300  
 Enabled: 72 cores, 1 chip  
 Orderable: 1 chip  
 Cache L1: 64 KB I + 48 KB D on chip per core  
 L2: 2 MB I+D on chip per core  
 L3: 288 MB I+D on chip per chip  
 Other: None  
 Memory: 512 GB (8 x 64 GB 2Rx4 PC5-6400B-R)  
 Storage: 60 GB on tmpfs  
 Other: CPU Cooling: Air

### Software

OS: Red Hat Enterprise Linux 10.0 (Coughlan)  
 6.12.0-55.9.1.el10\_0.x86\_64  
 Compiler: C/C++: Version 2025.2 of Intel oneAPI DPC++/C++  
 Compiler for Linux;  
 Fortran: Version 2025.2 of Intel Fortran Compiler  
 for Linux;  
 Parallel: Yes  
 Firmware: Version 1.1.3 released Feb-2026  
 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 set to prefer performance at the cost of  
 additional power usage.



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### Results Table

Benchmark	Base						Peak							
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	72	205	8.65	<b>207</b>	<b>8.57</b>			72	<b>190</b>	<b>9.33</b>	190	9.34		
602.gcc_s	72	<b>357</b>	<b>11.2</b>	356	11.2			72	335	11.9	<b>338</b>	<b>11.8</b>		
605.mcf_s	72	219	21.5	<b>220</b>	<b>21.5</b>			72	219	21.5	<b>220</b>	<b>21.5</b>		
620.omnetpp_s	72	<b>151</b>	<b>10.8</b>	149	11.0			72	<b>151</b>	<b>10.8</b>	149	11.0		
623.xalancbmk_s	72	119	12.0	<b>119</b>	<b>11.9</b>			72	119	12.0	<b>119</b>	<b>11.9</b>		
625.x264_s	72	<b>83.5</b>	<b>21.1</b>	83.5	21.1			72	80.2	22.0	<b>80.2</b>	<b>22.0</b>		
631.deepsjeng_s	72	210	6.84	<b>210</b>	<b>6.83</b>			72	210	6.84	<b>210</b>	<b>6.83</b>		
641.leela_s	72	<b>310</b>	<b>5.49</b>	310	5.50			72	<b>310</b>	<b>5.49</b>	310	5.50		
648.exchange2_s	72	<b>122</b>	<b>24.0</b>	122	24.1			72	<b>122</b>	<b>24.0</b>	122	24.1		
657.xz_s	72	246	25.1	<b>246</b>	<b>25.1</b>			72	246	25.1	<b>246</b>	<b>25.1</b>		

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

### 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:  
KMP\_AFFINITY = "granularity=fine,scatter"  
LD\_LIBRARY\_PATH =  
"/mnt/ramdisk/cpu2017-1.1.9-ic2025.2/lib/intel64:/mnt/ramdisk/cpu2017-1.1.9-ic2025.2/je5.0.1-64"  
MALLOC\_CONF = "retain:true"  
OMP\_STACKSIZE = "192M"

### General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM memory using Redhat Enterprise Linux 8.0  
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  
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>  
Benchmark run from a 60 GB ramdisk created with the cmd: "mount -t tmpfs -o size=60G tmpfs /mnt/ramdisk"

### Platform Notes

BIOS Settings:  
Logical Processor : Disabled  
Sub NUMA Cluster : Enabled  
LLC Prefetch : Enabled

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## Platform Notes (Continued)

System Profile : Custom  
CPU Power Management : Maximum Performance  
Memory Patrol Scrub : Disabled  
Latency Optimized Mode : Enabled

Sysinfo program /mnt/ramdisk/cpu2017-1.1.9-ic2025.2/bin/sysinfo  
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197  
running on P404206-XR8720t Mon Mar 2 08:40:59 2026

SUT (System Under Test) info as seen by some common utilities.

### Table of contents

1. uname -a
2. w
3. Username
4. ulimit -a
5. sysinfo process ancestry
6. /proc/cpuinfo
7. lscpu
8. numactl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 257 (257-9.el10\_0.1-g8cd5633)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. tuned-adm active
16. sysctl
17. /sys/kernel/mm/transparent\_hugepage
18. /sys/kernel/mm/transparent\_hugepage/khugepaged
19. OS release
20. Disk information
21. /sys/devices/virtual/dmi/id
22. dmidecode
23. BIOS

1. uname -a  
Linux P404206-XR8720t 6.12.0-55.9.1.el10\_0.x86\_64 #1 SMP PREEMPT\_DYNAMIC Tue Mar 25 09:14:09 EDT 2025  
x86\_64 GNU/Linux

2. w  
08:40:59 up 1 min, 0 user, load average: 0.09, 0.04, 0.01  
USER TTY LOGIN@ IDLE JCPU PCPU WHAT

3. Username  
From environment variable \$USER: root

4. ulimit -a  
real-time non-blocking time (microseconds, -R) unlimited  
core file size (blocks, -c) unlimited  
data seg size (kbytes, -d) unlimited  
scheduling priority (-e) 0

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## Platform Notes (Continued)

```

file size                (blocks, -f) unlimited
pending signals          (-i) 2059727
max locked memory        (kbytes, -l) 8192
max memory size          (kbytes, -m) unlimited
open files               (-n) 1024
pipe size                (512 bytes, -p) 8
POSIX message queues     (bytes, -q) 819200
real-time priority       (-r) 0
stack size               (kbytes, -s) unlimited
cpu time                 (seconds, -t) unlimited
max user processes       (-u) 2059727
virtual memory           (kbytes, -v) unlimited
file locks               (-x) unlimited

```

```

-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize=47 rhgb
/usr/sbin/crond -n
/usr/sbin/CROND -n
/bin/bash /home/DellFiles/bin/dell-crontab-run.sh dell-batch.sh
/bin/bash /home/DellFiles/bin/dell-crontab-run.sh dell-batch.sh
/bin/bash /home/DellFiles/bin/dell-batch.sh
/bin/bash /home/DellFiles/bin/dell-batch.sh
/bin/bash /home/DellFiles/bin/CPU_speed.sh
/bin/bash /home/DellFiles/bin/cpu-run-main.sh speed
/bin/bash /home/DellFiles/bin/cpu-run-main.sh speed
/bin/bash /home/DellFiles/bin/Intel/cpu-run-speccpu.sh speed_all --define DL-VERS=7.0_T06 --output_format
html,pdf,txt
/bin/bash /home/DellFiles/bin/Intel/cpu-run-speccpu.sh speed_all --define DL-VERS=7.0_T06 --output_format
html,pdf,txt
runcpu --nobuild --action validate --define default-platform-flags -c
ic2025.2-linux64-graniterapids-speed-20250605.cfg --define cores=72 --tune base,peak -o all --define
intspeedaffinity --define drop_caches --iterations 2 --define DL-VERS=7.0_T06 --output_format html,pdf,txt
intspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
ic2025.2-linux64-graniterapids-speed-20250605.cfg --define cores=72 --tune base,peak --output_format all
--define intspeedaffinity --define drop_caches --iterations 2 --define DL-VERS=7.0_T06 --output_format
html,pdf,txt --nopower --runmode speed --tune base:peak --size refspeed intspeer --nopreenv --note-preenv
--logfile $SPEC/tmp/CPU2017.001/temlogs/preenv.intspeed.001.0.log --lognum 001.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /mnt/ramdisk/cpu2017-1.1.9-ic2025.2

```

```

-----
6. /proc/cpuinfo
model name      : INTEL(R) XEON(R) 6776P-B
vendor_id      : GenuineIntel
cpu family     : 6
model          : 174
stepping       : 1
microcode      : 0x1000303
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores      : 72
siblings       : 72
1 physical ids (chips)
72 processors (hardware threads)
physical id 0: core ids 0-35,64-99
physical id 0: apicids
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,70,12
8,130,132,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174,176,178,180
,182,184,186,188,190,192,194,196,198

```

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## Platform Notes (Continued)

Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for virtualized systems. Use the above data carefully.

7. lscpu

From lscpu from util-linux 2.40.2:

```

Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Address sizes:         52 bits physical, 57 bits virtual
Byte Order:            Little Endian
CPU(s):                72
On-line CPU(s) list:  0-71
Vendor ID:             GenuineIntel
BIOS Vendor ID:       Intel
Model name:            INTEL(R) XEON(R) 6776P-B
BIOS Model name:      INTEL(R) XEON(R) 6776P-B  CPU @ 2.3GHz
BIOS CPU family:      179
CPU family:            6
Model:                 174
Thread(s) per core:   1
Core(s) per socket:   72
Socket(s):             1
Stepping:              1
BogoMIPS:              4600.00
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 aperfmperf tsc_known_freq pni
pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16
xtpr pdc m 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 cat_l2 cdp_l3 intel_ppin cdp_l2
ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow flexpriority ept
vpid ept_ad fsgsbase tsc_adjust bml avx2 smep bmi2 erms invpcid cqm
rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb
intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec xgetbv1
xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local
split_lock_detect user_shstk avx_vnni avx512_bf16 wbnoinvd dtherm ida
arat pln pts vnmi avx512vbmi umip pku ospke waitpkg avx512_vbmi2 gfni
vaes vpclmulqdq avx512_vnni avx512_bitalg avx512_vpopcntdq la57 rdpid
bus_lock_detect cldemote movdiri movdir64b enqcmd fsrm md_clear
serialize tsxldtrk pconfig arch_lbr ibt amx_bf16 avx512_fp16 amx_tile
amx_int8 flush_lld arch_capabilities

Virtualization:       VT-x
L1d cache:            3.4 MiB (72 instances)
L1i cache:            4.5 MiB (72 instances)
L2 cache:              144 MiB (72 instances)
L3 cache:              288 MiB (1 instance)
NUMA node(s):         2
NUMA node0 CPU(s):   0-35
NUMA node1 CPU(s):   36-71
Vulnerability Gather data sampling: Not affected
Vulnerability Itlb multihit:       Not affected
Vulnerability Lltf:                 Not affected
Vulnerability Mds:                  Not affected
Vulnerability Meltdown:             Not affected
Vulnerability Mmio stale data:      Not affected
Vulnerability Reg file data sampling: Not affected
Vulnerability Retbleed:             Not affected

```

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### Platform Notes (Continued)

Vulnerability Spec rstack overflow: Not affected  
 Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl  
 Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and \_\_user pointer sanitization  
 Vulnerability Spectre v2: Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling; PBRSE-eIBRS Not affected; BHI BHI\_DIS\_S  
 Vulnerability Srbds: Not affected  
 Vulnerability Tsx async abort: Not affected

From lscpu --cache:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	3.4M	12	Data	1	64	1	64
L1i	64K	4.5M	16	Instruction	1	64	1	64
L2	2M	144M	16	Unified	2	2048	1	64
L3	288M	288M	16	Unified	3	294912	1	64

8. numactl --hardware

NOTE: a numactl 'node' might or might not correspond to a physical chip.  
 available: 2 nodes (0-1)  
 node 0 cpus: 0-35  
 node 0 size: 257168 MB  
 node 0 free: 242596 MB  
 node 1 cpus: 36-71  
 node 1 size: 257985 MB  
 node 1 free: 256786 MB  
 node distances:  
 node 0 1  
 0: 10 12  
 1: 12 10

9. /proc/meminfo

MemTotal: 527517240 kB

10. who -r

run-level 3 Mar 2 08:39

11. Systemd service manager version: systemd 257 (257-9.el110\_0.1-g8cd5633)

Default Target	Status
multi-user	running

12. Services, from systemctl list-unit-files

STATE	UNIT FILES
enabled	ModemManager NetworkManager NetworkManager-dispatcher NetworkManager-wait-online accounts-daemon atd audit-rules auditd avahi-daemon bluetooth chronyd crond cups dbus-broker fips-crypto-policy-overlay firewalld gdm getty@ insights-client-boot irqbalance iscsi-onboot iscsi-starter kdump libstoragemgmt lvm2-monitor mcelog mdmonitor multipathd nvme-fc-boot-connections qemu-guest-agent rhsmcertd rsyslog rtkit-daemon selinux-autorelabel-mark smartd sshd sssd switcheroo-control systemd-confext systemd-network-generator systemd-pstore systemd-sysext tuned tuned-ppd udisks2 upower vgauthd vmtoclsd
enabled-runtime	systemd-remount-fs
disabled	arp-ethers blk-availability brltty canberra-system-bootup canberra-system-shutdown canberra-system-shutdown-reboot chrony-wait chronyd-restricted console-getty cups-browsed dbus-daemon debug-shell dnf-system-upgrade dnsmasq gnome-remote-desktop gnome-remote-desktop-configuration hypervfscopyd iscsi-init iscsid iscsiui kpatch kvm_stat ledmon low-memory-monitor lvm-devices-import man-db-restart-cache-update microcode

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## Platform Notes (Continued)

```

indirect
netavark-dhcp-proxy netavark-firewalld-reload nftables nis-domainname nvmmf-autoconnect
podman podman-auto-update podman-clean-transient podman-kube@ podman-restart psacct
ras-mc-ctl rasdaemon rhsm rhsm-facts rpmbd-migrate rpmbd-rebuild
selinux-check-proper-disable serial-getty@ speech-dispatcherd ssh-host-keys-migration
sshd-keygen@ systemd-boot-check-no-failures systemd-boot-update
systemd-PCRlock-file-system systemd-PCRlock-firmware-code systemd-PCRlock-firmware-config
systemd-PCRlock-machine-id systemd-PCRlock-make-policy
systemd-PCRlock-secureboot-authority systemd-PCRlock-secureboot-policy
systemd-udev-load-credentials wpa_supplicant wsd yggdrasil yggdrasil@
iscsi pcsd spice-vdagentd sshd@ sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh
sssd-sudo systemd-sysupdate systemd-sysupdate-reboot systemd-userdbd

```

```

-----
13. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=(hd0,gpt2)/vmlinuz-6.12.0-55.9.1.el10_0.x86_64
root=/dev/mapper/rhel-root
ro
crashkernel=2G-64G:256M,64G-:512M
resume=UUID=94aa4dd4-b04d-42c5-9ac2-da9c96f84f4e
rd.lvm.lv=rhel/root
rd.lvm.lv=rhel/swap
rhgb
quiet

```

```

-----
14. cpupower frequency-info
analyzing CPU 36:
Unable to determine current policy
boost state support:
Supported: yes
Active: yes

```

```

-----
15. tuned-adm active
No current active profile.

```

```

-----
16. sysctl
kernel.numa_balancing          1
kernel.randomize_va_space      2
vm.compaction_proactiveness    20
vm.dirty_background_bytes      0
vm.dirty_background_ratio      10
vm.dirty_bytes                  0
vm.dirty_expire_centisecs      3000
vm.dirty_ratio                  20
vm.dirty_writeback_centisecs    500
vm.dirtytime_expire_seconds    43200
vm.extfrag_threshold            500
vm.min_unmapped_ratio          1
vm.nr_hugepages                 0
vm.nr_hugepages_mempolicy       0
vm.nr_overcommit_hugepages     0
vm.swappiness                    60
vm.watermark_boost_factor       15000
vm.watermark_scale_factor       10
vm.zone_reclaim_mode            0

```

```

-----
17. /sys/kernel/mm/transparent_hugepage

```

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## Platform Notes (Continued)

```

defrag          always defer defer+madvice [madvice] never
enabled         [always] madvice never
hpage_pmd_size 2097152
shmem_enabled  always within_size advise [never] deny force

```

```

-----
18. /sys/kernel/mm/transparent_hugepage/khugepaged
alloc_sleep_millisecs 60000
defrag                 1
max_ptes_none         511
max_ptes_shared       256
max_ptes_swap         64
pages_to_scan         4096
scan_sleep_millisecs 10000

```

```

-----
19. OS release
From /etc/*-release /etc/*-version
os-release      Red Hat Enterprise Linux 10.0 (Coughlan)
redhat-release  Red Hat Enterprise Linux release 10.0 (Coughlan)
system-release  Red Hat Enterprise Linux release 10.0 (Coughlan)

```

```

-----
20. Disk information
SPEC is set to: /mnt/ramdisk/cpu2017-1.1.9-ic2025.2
Filesystem      Type  Size  Used Avail Use% Mounted on
tmpfs            tmpfs 60G   5.8G  55G  10% /mnt/ramdisk

```

```

-----
21. /sys/devices/virtual/dmi/id
Vendor:         Dell Inc.
Product:        PowerEdge XR8720t
Product Family: PowerEdge
Serial:         P404206

```

```

-----
22. dmidecode
Additional information from dmidecode 3.6 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:
  8x 00CE063200CE M321R8GA0PB2-CCPKC 64 GB 2 rank 6400

```

```

-----
23. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor:      Dell Inc.
BIOS Version:     1.1.3
BIOS Date:        02/03/2026
BIOS Revision:    1.1

```

## Compiler Version Notes

```

=====
C | 600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base, peak) 625.x264_s(base, peak)
  | 657.xz_s(base, peak)
=====

```

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## Compiler Version Notes (Continued)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605  
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=====  
C++ | 620.omnetpp\_s(base, peak) 623.xalancbmk\_s(base, peak) 631.deepsjeng\_s(base, peak)  
| 641.leela\_s(base, peak)  
=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605  
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=====  
Fortran | 648.exchange2\_s(base, peak)  
=====

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605  
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## Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

## Base Portability Flags

600.perlbench\_s: -DSPEC\_LP64 -DSPEC\_LINUX\_X64  
602.gcc\_s: -DSPEC\_LP64  
605.mcf\_s: -DSPEC\_LP64  
620.omnetpp\_s: -DSPEC\_LP64  
623.xalancbmk\_s: -DSPEC\_LP64 -DSPEC\_LINUX  
625.x264\_s: -DSPEC\_LP64  
631.deepsjeng\_s: -DSPEC\_LP64  
641.leela\_s: -DSPEC\_LP64  
648.exchange2\_s: -DSPEC\_LP64  
657.xz\_s: -DSPEC\_LP64



# SPEC CPU®2017 Integer Speed Result

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Dell Inc.

SPECspeed®2017\_int\_base = 12.9

PowerEdge XR8720t (Intel Xeon 6776P-B)

SPECspeed®2017\_int\_peak = 13.1

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Mar-2026

Hardware Availability: Mar-2026

Software Availability: Jun-2025

## Base Optimization Flags

C benchmarks:

```
-w -std=c11 -m64 -Wl,-z,muldefs -xgraniterapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

C++ benchmarks:

```
-w -std=c++14 -m64 -Wl,-z,muldefs -xgraniterapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fdelayed-template-parsing -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Fortran benchmarks:

```
-w -m64 -Wl,-z,muldefs -xgraniterapids -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

## Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
```

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## Peak Optimization Flags (Continued)

600.perlbench\_s (continued):

```
-fiopenmp -DSPEC_OPENMP -fno-strict-overflow
-fno-strict-aliasing -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc
```

602.gcc\_s: -w -m64 -std=c11 -Wl,-z,muldefs

```
-fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc
```

605.mcf\_s: basepeak = yes

625.x264\_s: -w -std=c11 -m64 -Wl,-z,muldefs -xgraniterapids -O3

```
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-fno-alias -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

657.xz\_s: basepeak = yes

C++ benchmarks:

620.omnetpp\_s: basepeak = yes

623.xalancbmk\_s: basepeak = yes

631.deepsjeng\_s: basepeak = yes

641.leela\_s: basepeak = yes

Fortran benchmarks:

648.exchange2\_s: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2017/flags/Intel-ic2025-official-linux64.html>

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.19.html>

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

<http://www.spec.org/cpu2017/flags/Intel-ic2025-official-linux64.xml>

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.19.xml>



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Tested with SPEC CPU®2017 v1.1.9 on 2026-03-02 09:40:58-0500.  
Report generated on 2026-03-25 10:08:00 by CPU2017 PDF formatter v6716.  
Originally published on 2026-03-24.