



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 15.0

PowerEdge R360 (Intel Xeon 6333P)

SPECspeed®2017\_int\_peak = 15.3

CPU2017 License: 6573

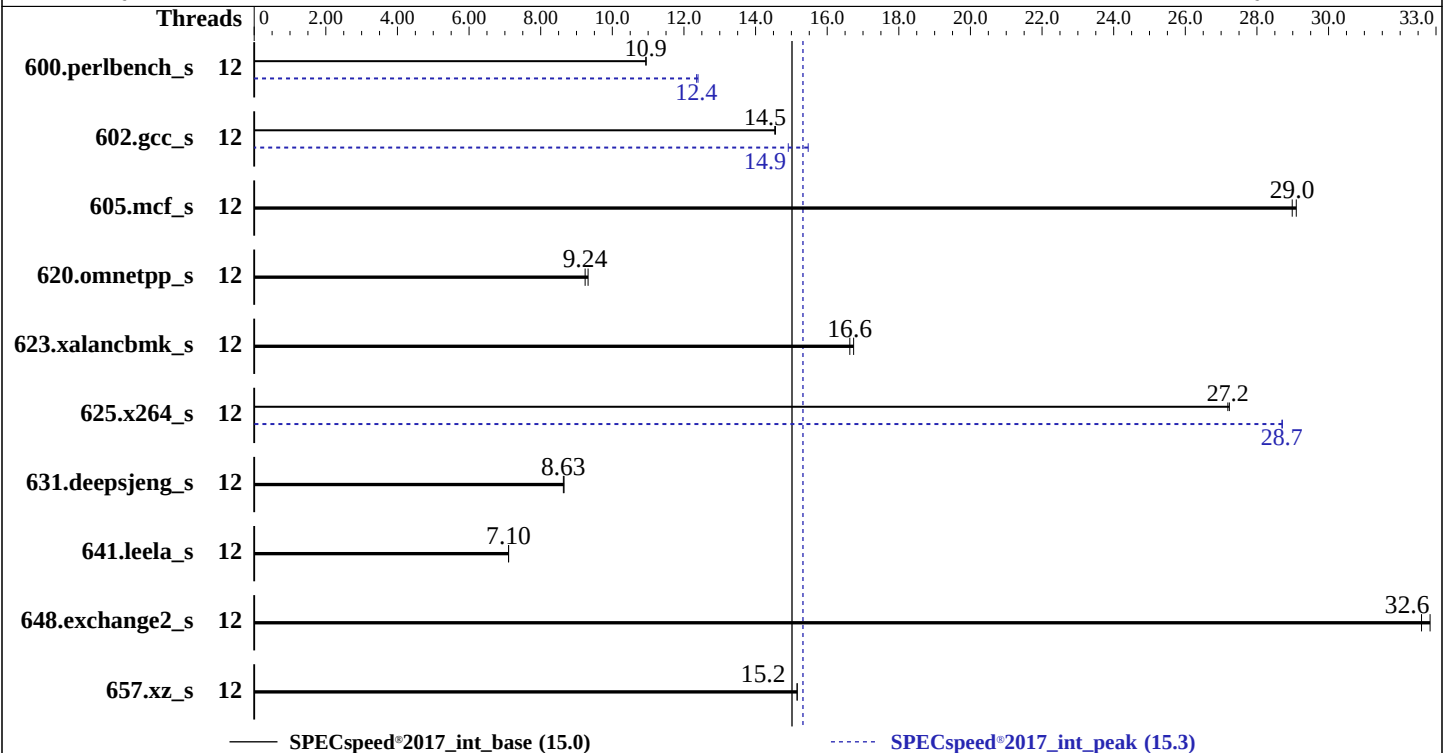
Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Feb-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024



## Hardware

CPU Name: Intel Xeon 6333P  
Max MHz: 5200  
Nominal: 3100  
Enabled: 6 cores, 1 chip, 2 threads/core  
Orderable: 1 chip  
Cache L1: 32 KB I + 48 KB D on chip per core  
L2: 2 MB I+D on chip per core  
L3: 18 MB I+D on chip per chip  
Other: None  
Memory: 64 GB (2 x 32 GB 2Rx8 PC5-5600B-E, running at 4400)  
Storage: 40 GB on tmpfs  
Other: CPU Cooling: Air

## Software

OS: SUSE Linux Enterprise Server 15 SP6  
6.4.0-150600.21-default  
Compiler: C/C++: Version 2024.1 of Intel oneAPI DPC++/C++ Compiler for Linux;  
Fortran: Version 2024.1 of Intel Fortran Compiler for Linux;  
Parallel: Yes  
Firmware: Version 2.0.0 released Dec-2024  
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 | 12      | <b><u>162</u></b>  | <b><u>10.9</u></b> | 162                | 10.9               |         |       | 12      | <b><u>144</u></b>  | <b><u>12.4</u></b> | 143                | 12.4               |         |       |
| 602.gcc_s       | 12      | <b><u>274</u></b>  | <b><u>14.5</u></b> | 274                | 14.6               |         |       | 12      | 257                | 15.5               | <b><u>267</u></b>  | <b><u>14.9</u></b> |         |       |
| 605.mcf_s       | 12      | <b><u>163</u></b>  | <b><u>29.0</u></b> | 162                | 29.1               |         |       | 12      | <b><u>163</u></b>  | <b><u>29.0</u></b> | 162                | 29.1               |         |       |
| 620.omnetpp_s   | 12      | 175                | 9.32               | <b><u>177</u></b>  | <b><u>9.24</u></b> |         |       | 12      | 175                | 9.32               | <b><u>177</u></b>  | <b><u>9.24</u></b> |         |       |
| 623.xalancbmk_s | 12      | 84.7               | 16.7               | <b><u>85.2</u></b> | <b><u>16.6</u></b> |         |       | 12      | 84.7               | 16.7               | <b><u>85.2</u></b> | <b><u>16.6</u></b> |         |       |
| 625.x264_s      | 12      | <b><u>64.9</u></b> | <b><u>27.2</u></b> | 64.8               | 27.2               |         |       | 12      | <b><u>61.5</u></b> | <b><u>28.7</u></b> | 61.4               | 28.7               |         |       |
| 631.deepsjeng_s | 12      | 166                | 8.65               | <b><u>166</u></b>  | <b><u>8.63</u></b> |         |       | 12      | 166                | 8.65               | <b><u>166</u></b>  | <b><u>8.63</u></b> |         |       |
| 641.leela_s     | 12      | 240                | 7.10               | <b><u>240</u></b>  | <b><u>7.10</u></b> |         |       | 12      | 240                | 7.10               | <b><u>240</u></b>  | <b><u>7.10</u></b> |         |       |
| 648.exchange2_s | 12      | 89.5               | 32.8               | <b><u>90.2</u></b> | <b><u>32.6</u></b> |         |       | 12      | 89.5               | 32.8               | <b><u>90.2</u></b> | <b><u>32.6</u></b> |         |       |
| 657.xz_s        | 12      | 408                | 15.2               | <b><u>408</u></b>  | <b><u>15.2</u></b> |         |       | 12      | 408                | 15.2               | <b><u>408</u></b>  | <b><u>15.2</u></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-ic2024.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.9-ic2024.1/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>

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 40 GB ramdisk created with the cmd: "mount -t tmpfs -o size=40G tmpfs /mnt/ramdisk"



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## Platform Notes

BIOS Settings:  
Defaults set

Sysinfo program /mnt/ramdisk/cpu2017-1.1.9-ic2024.1/bin/sysinfo  
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197  
running on 1234567-R360 Mon Feb 17 14:15:20 2025

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 254 (254.10+suse.84.ge8d77af424)
  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 1234567-R360 6.4.0-150600.21-default #1 SMP PREEMPT\_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09/lp)  
x86\_64 x86\_64 x86\_64 GNU/Linux
- 
2. w  
14:15:20 up 6 min, 1 user, load average: 0.16, 0.08, 0.03  
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT  
root tty1 - 14:14 32.00s 0.68s 0.00s /bin/bash  
/home/DellFiles/bin/Intel/dell-run-speccpu.sh speed --define DL-VERS=6.1 --output\_format html,pdf,txt
- 
3. Username  
From environment variable \$USER: root
- 
4. ulimit -a  
core file size (blocks, -c) unlimited  
data seg size (kbytes, -d) unlimited  
scheduling priority (-e) 0  
file size (blocks, -f) unlimited

(Continued on next page)



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## Platform Notes (Continued)

|                      |                 |           |
|----------------------|-----------------|-----------|
| pending signals      | (-i)            | 254805    |
| 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)            | 254805    |
| virtual memory       | (kbytes, -v)    | unlimited |
| file locks           | (-x)            | unlimited |

### 5. sysinfo process ancestry

```
/usr/lib/systemd/systemd --switched-root --system --deserialize=42
login -- root
-bash
/bin/bash /home/DellFiles/bin/DELL_speed.sh
/bin/bash /home/DellFiles/bin/dell-run-main.sh speed
/bin/bash /home/DellFiles/bin/dell-run-main.sh speed
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh speed --define DL-VERS=6.1 --output_format
html,pdf,txt
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh speed --define DL-VERS=6.1 --output_format
html,pdf,txt
runcpu --nobuild --action validate --define default-platform-flags -c
ic2024.1-lin-core-avx2-speed-20240308.cfg --define cores=6 --tune base,peak -o all --define
intspeedaffinity --define smt-on --define drop_caches --iterations 2 --define DL-VERS=6.1 --output_format
html,pdf,txt intspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
ic2024.1-lin-core-avx2-speed-20240308.cfg --define cores=6 --tune base,peak --output_format all --define
intspeedaffinity --define smt-on --define drop_caches --iterations 2 --define DL-VERS=6.1 --output_format
html,pdf,txt --nopower --runmode speed --tune base:peak --size refspeed intspeed --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-ic2024.1
```

### 6. /proc/cpuinfo

```
model name      : Intel(R) Xeon(R) 6333P
vendor_id       : GenuineIntel
cpu family      : 6
model           : 183
stepping        : 1
microcode       : 0x12c
bugs             : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb bhi
cpu cores       : 6
siblings        : 12
1 physical ids (chips)
12 processors (hardware threads)
physical id 0: core ids 0-5
physical id 0: apicids 0-11
```

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 2.39.3:
Architecture: x86_64
```

(Continued on next page)



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## Platform Notes (Continued)

CPU op-mode(s): 32-bit, 64-bit  
Address sizes: 42 bits physical, 48 bits virtual  
Byte Order: Little Endian  
CPU(s): 12  
On-line CPU(s) list: 0-11  
Vendor ID: GenuineIntel  
BIOS Vendor ID: Intel  
Model name: Intel(R) Xeon(R) 6333P  
BIOS Model name: Intel(R) Xeon(R) 6333P CPU @ 3.1GHz  
BIOS CPU family: 179  
CPU family: 6  
Model: 183  
Thread(s) per core: 2  
Core(s) per socket: 6  
Socket(s): 1  
Stepping: 1  
BogoMIPS: 6220.80  
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 smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm sse4\_1 sse4\_2 x2apic movbe popcnt tsc\_deadline\_timer aes xsave avx f16c rdrand lahf\_lm abm 3dnowprefetch cpuid\_fault ssbd ibrs ibpb stibp ibrs\_enhanced fsgsbase tsc\_adjust bmi1 avx2 smep bmi2 erms invpcid rdseed adx smap clflushopt clwb intel\_pt sha\_ni xsaveopt xsavec xgetbv1 xsaves split\_lock\_detect user\_shstk avx\_vnni dtherm ida arat pln pts hfi umip pku ospke waitpkg gfni vaes vpclmulqdq tme rdpid movdiri movdir64b fsrm md\_clear serialize pconfig arch\_lbr ibt flush\_l1d arch\_capabilities  
L1d cache: 288 KiB (6 instances)  
L1i cache: 192 KiB (6 instances)  
L2 cache: 12 MiB (6 instances)  
L3 cache: 18 MiB (1 instance)  
NUMA node(s): 1  
NUMA node0 CPU(s): 0-11  
Vulnerability Gather data sampling: Not affected  
Vulnerability Itlb multihit: Not affected  
Vulnerability L1tf: 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  
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 SW sequence; 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      | 288K     | 12   | Data        | 1     | 64    | 1        | 64             |
| L1i  | 32K      | 192K     | 8    | Instruction | 1     | 64    | 1        | 64             |
| L2   | 2M       | 12M      | 16   | Unified     | 2     | 2048  | 1        | 64             |
| L3   | 18M      | 18M      | 9    | Unified     | 3     | 32768 | 1        | 64             |

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## Platform Notes (Continued)

8. numactl --hardware

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

```
available: 1 nodes (0)
node 0 cpus: 0-11
node 0 size: 63732 MB
node 0 free: 52731 MB
node distances:
node 0
0: 10
```

9. /proc/meminfo

```
MemTotal: 65261652 kB
```

10. who -r

```
run-level 3 Feb 17 14:09
```

11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)

```
Default Target Status
multi-user running
```

12. Services, from systemctl list-unit-files

| STATE           | UNIT FILES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| enabled         | ModemManager YaST2-Firstboot YaST2-Second-Stage apparmor appstream-sync-cache auditd bluetooth cron display-manager getty@ irqbalance issue-generator kbdsettings kdump kdump-early kdump-notify klog lvm2-monitor nsd nvme-fc-boot-connections nvme-fc-autoconnect postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny wpa_supplicant                                                                                                                                                                                                                                                                                                                                                                                                                          |
| enabled-runtime | systemd-remount-fs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| disabled        | NetworkManager NetworkManager-dispatcher NetworkManager-wait-online accounts-daemon autofs autostart-initscripts blk-availability bluetooth-mesh boot-sysctl ca-certificates chrony-wait chronyd console-getty cups cups-browsed debug-shell dmraid-activation dnsmasq ebtables exchange-bmc-os-info firewallld fsidd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievad issue-add-ssh-keys kexec-load ksm kvm_stat lunmask man-db-create multipathd nfs nfs-blkmap nmb openvpn@ ostree-remount rpcbind rpmconfigcheck rsyncd rtkit-daemon serial-getty@ smartd_generate_opts smb snmpd snmptrapd speech-dispatcherd svnservice systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysextd systemd-time-wait-sync systemd-timesyncd tuned udisks2 update-system-flatpaks upower vncserver@ wpa_supplicant@ |
| indirect        | pcscd saned@ systemd-userdbd wickedd                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

13. Linux kernel boot-time arguments, from /proc/cmdline

```
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
root=UUID=b1d3f23e-d41a-499d-b599-91c6db8ef83b
splash=silent
resume=/dev/disk/by-uuid/2b2b6f8c-68c6-493c-9140-5358de13db29
mitigations=auto
quiet
security=apparmor
crashkernel=328M,high
crashkernel=72M,low
```

14. cpupower frequency-info

```
analyzing CPU 2:
Unable to determine current policy
```

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## Platform Notes (Continued)

boost state support:

Supported: yes

Active: yes

-----  
15. tuned-adm active

No current active profile.

-----  
16. sysctl

|                              |       |
|------------------------------|-------|
| kernel.numa_balancing        | 0     |
| 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

|                |          |             |               |           |            |
|----------------|----------|-------------|---------------|-----------|------------|
| defrag         | always   | defer       | defer+madvise | [madvise] | never      |
| enabled        | [always] | madvise     | 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 SUSE Linux Enterprise Server 15 SP6

-----  
20. Disk information

SPEC is set to: /mnt/ramdisk/cpu2017-1.1.9-ic2024.1

| Filesystem | Type  | Size | Used | Avail | Use% | Mounted on   |
|------------|-------|------|------|-------|------|--------------|
| tmpfs      | tmpfs | 40G  | 5.0G | 36G   | 13%  | /mnt/ramdisk |

-----  
21. /sys/devices/virtual/dmi/id

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## Platform Notes (Continued)

Vendor: Dell Inc.  
Product: PowerEdge R360  
Product Family: PowerEdge  
Serial: 1234567

### 22. dmidecode

Additional information from dmidecode 3.4 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:

2x 00AD00001501 HMC88AGBEA084N 32 GB 2 rank 5600, configured at 4400

### 23. BIOS

(This section combines info from /sys/devices and dmidecode.)

BIOS Vendor: Dell Inc.  
BIOS Version: 2.0.0  
BIOS Date: 12/20/2024  
BIOS Revision: 2.0

## 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)
```

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

```
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 2024.1.0 Build 20240308  
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```
Fortran | 648.exchange2_s(base, peak)
```

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308  
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## Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

(Continued on next page)





# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 15.0

PowerEdge R360 (Intel Xeon 6333P)

SPECspeed®2017\_int\_peak = 15.3

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Feb-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

## Base Compiler Invocation (Continued)

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

## Base Optimization Flags

C benchmarks:

-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX2 -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 -xCORE-AVX2 -O3 -ffast-math  
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4  
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

Fortran benchmarks:

-w -m64 -Wl,-z,muldefs -xCORE-AVX2 -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

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# SPEC CPU®2017 Integer Speed Result

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Dell Inc.

SPECspeed®2017\_int\_base = 15.0

PowerEdge R360 (Intel Xeon 6333P)

SPECspeed®2017\_int\_peak = 15.3

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Feb-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

## Peak Compiler Invocation (Continued)

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 -flto
-Ofast(pass 1) -O3 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -fno-strict-overflow
-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 -flto
-Ofast(pass 1) -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 -xCORE-AVX2 -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:

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# SPEC CPU®2017 Integer Speed Result

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CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Feb-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

## Peak Optimization Flags (Continued)

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-v1.18t.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-v1.18t.xml>

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