



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

CPU2017 License: 6573

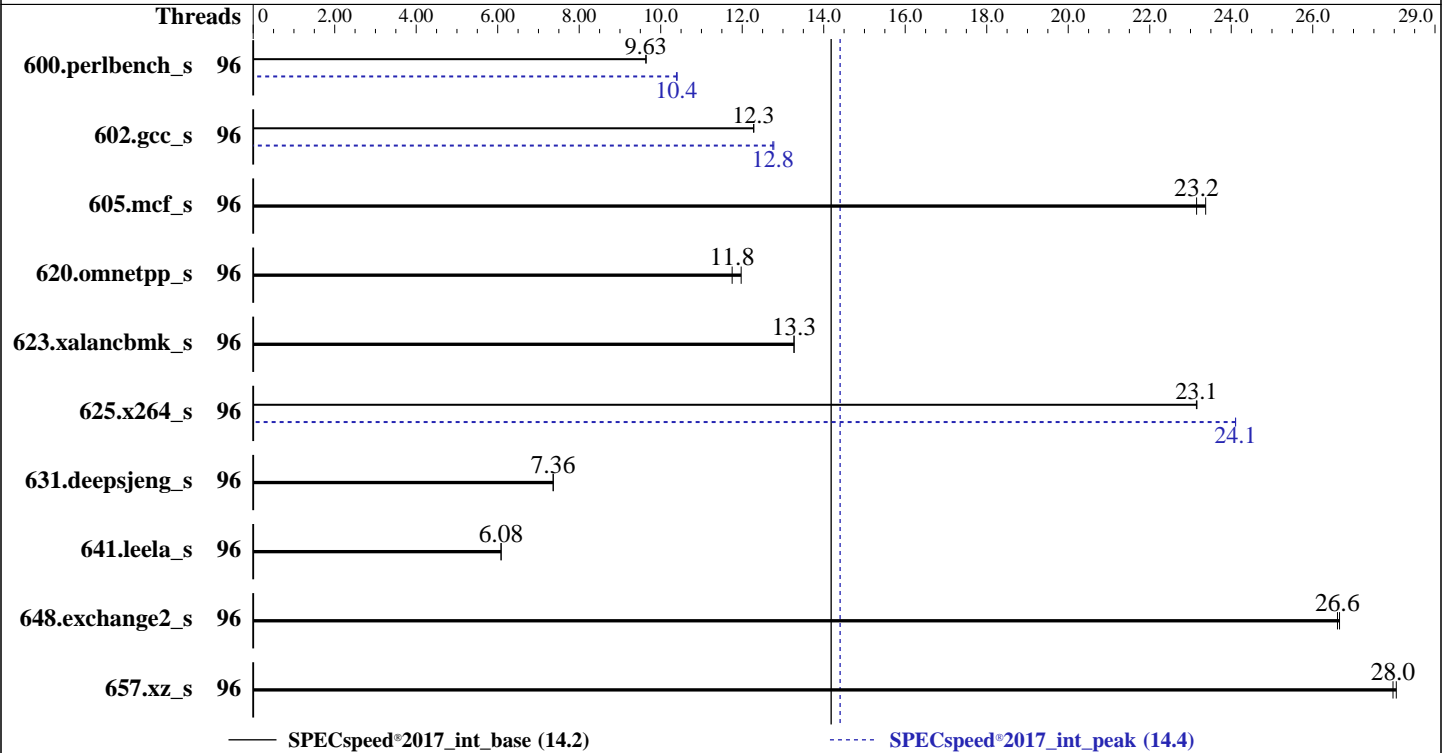
Test Date: Mar-2025

Test Sponsor: Dell Inc.

Hardware Availability: Mar-2025

Tested by: Dell Inc.

Software Availability: Jun-2024



## Hardware

CPU Name: Intel Xeon 6747P  
 Max MHz: 3900  
 Nominal: 2700  
 Enabled: 96 cores, 2 chips  
 Orderable: 1,2 chips  
 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 (16 x 32 GB 2Rx8 PC5-6400B-R)  
 Storage: 70 GB on tmpfs  
 Other: CPU Cooling: DLC

## 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 1.2.6 released Feb-2025  
 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.



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECSpeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECSpeed®2017\_int\_peak = 14.4

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

Test Date: Mar-2025  
Hardware Availability: Mar-2025  
Software Availability: Jun-2024

## Results Table

Benchmark	Base						Peak							
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	96	184	9.64	<b>184</b>	<b>9.63</b>			96	171	10.4	<b>171</b>	<b>10.4</b>		
602.gcc_s	96	324	12.3	<b>324</b>	<b>12.3</b>			96	<b>312</b>	<b>12.8</b>	312	12.8		
605.mcf_s	96	202	23.4	<b>204</b>	<b>23.2</b>			96	202	23.4	<b>204</b>	<b>23.2</b>		
620.omnetpp_s	96	<b>139</b>	<b>11.8</b>	136	12.0			96	<b>139</b>	<b>11.8</b>	136	12.0		
623.xalancbmk_s	96	107	13.3	<b>107</b>	<b>13.3</b>			96	107	13.3	<b>107</b>	<b>13.3</b>		
625.x264_s	96	76.2	23.2	<b>76.2</b>	<b>23.1</b>			96	73.2	24.1	<b>73.2</b>	<b>24.1</b>		
631.deepsjeng_s	96	195	7.36	<b>195</b>	<b>7.36</b>			96	195	7.36	<b>195</b>	<b>7.36</b>		
641.leela_s	96	<b>280</b>	<b>6.08</b>	280	6.08			96	<b>280</b>	<b>6.08</b>	280	6.08		
648.exchange2_s	96	110	26.7	<b>110</b>	<b>26.6</b>			96	110	26.7	<b>110</b>	<b>26.6</b>		
657.xz_s	96	220	28.0	<b>221</b>	<b>28.0</b>			96	220	28.0	<b>221</b>	<b>28.0</b>		

SPECSpeed®2017\_int\_base = **14.2**

SPECSpeed®2017\_int\_peak = **14.4**

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 70 GB ramdisk created with the cmd: "mount -t tmpfs -o size=70G tmpfs /mnt/ramdisk"



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Mar-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

## Platform Notes

### BIOS Settings:

Logical Processor : Disabled  
 Sub NUMA Cluster : Enabled  
 LLC Prefetch : Enabled  
 Optimizer Mode : Enabled

System Profile : Custom  
 CPU Power Management : Maximum Performance  
 Energy Efficient Turbo : Disabled  
 C1E : Disabled  
 C-States : Autonomous  
 Latency Optimized Mode : Enabled  
 Energy Efficient Policy : Performance  
 CPU Interconnect Bus -  
 Link Power Management : Disabled  
 PCI ASPM L1 Link Power Management : Disabled  
 DIMM Self Healing -  
 on Uncorrectable Memory Error : Disabled

Sysinfo program /mnt/ramdisk/cpu2017-1.1.9-ic2024.1/bin/sysinfo  
 Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197  
 running on 1234567-R770 Sun Mar 9 18:04:50 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. sysctl
  16. /sys/kernel/mm/transparent\_hugepage
  17. /sys/kernel/mm/transparent\_hugepage/khugepaged
  18. OS release
  19. Disk information
  20. /sys/devices/virtual/dmi/id
  21. dmidecode
  22. BIOS
- 
1. uname -a  
 Linux 1234567-R770 6.4.0-150600.21-default #1 SMP PREEMPT\_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09/1p)  
 x86\_64 x86\_64 x86\_64 GNU/Linux
  2. w

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

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

Test Date: Mar-2025  
Hardware Availability: Mar-2025  
Software Availability: Jun-2024

## Platform Notes (Continued)

```
18:04:50 up 6 min, 1 user, load average: 0.20, 0.13, 0.07
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
root tty1 - 17:59 26.00s 0.81s 0.00s /bin/bash
/home/DellFiles/bin/Intel/dell-run-speccpu.sh speed --define DL-VERS=6.1a --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  
pending signals (-i) 2062331  
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) 2062331  
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=6.1a --output\_format html,pdf,txt  
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh speed --define DL-VERS=6.1a --output\_format html,pdf,txt  
runcpu --nobuild --action validate --define default-platform-flags -c  
ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=96 --tune base,peak -o all --define  
intspeedaffinity --define drop\_caches --iterations 2 --define DL-VERS=6.1a --output\_format html,pdf,txt  
intspeed  
runcpu --nobuild --action validate --define default-platform-flags --configfile  
ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=96 --tune base,peak --output\_format all  
--define intsppedaffinity --define drop\_caches --iterations 2 --define DL-VERS=6.1a --output\_format  
html,pdf,txt --nopower --runmode speed --tune base:peak --size refspped intspped --nopreenv --note-preenv  
--logfile \$SPEC/tmp/CPU2017.001/temlogs/preenv.intspped.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) 6747P  
vendor\_id : GenuineIntel  
cpu family : 6  
model : 173  
stepping : 1  
microcode : 0x1000380

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

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

Test Date: Mar-2025  
Hardware Availability: Mar-2025  
Software Availability: Jun-2024

## Platform Notes (Continued)

bugs : spectre\_v1 spectre\_v2 spec\_store\_bypass swappgs bhi  
cpu cores : 48  
siblings : 48  
2 physical ids (chips)  
96 processors (hardware threads)  
physical id 0: core ids 0-23,64-87  
physical id 1: core ids 0-23,64-87  
physical id 0: apicids  
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,128,130,132,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174  
physical id 1: apicids  
256,258,260,262,264,266,268,270,272,274,276,278,280,282,284,286,288,290,292,294,296,298,300,302,384,386,388,390,392,394,396,398,400,402,404,406,408,410,412,414,416,418,420,422,424,426,428,430

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
CPU op-mode(s): 32-bit, 64-bit
Address sizes: 52 bits physical, 57 bits virtual
Byte Order: Little Endian
CPU(s): 96
On-line CPU(s) list: 0-95
Vendor ID: GenuineIntel
BIOS Vendor ID: Intel
Model name: Intel(R) Xeon(R) 6747P
BIOS Model name: Intel(R) Xeon(R) 6747P CPU @ 2.7GHz
BIOS CPU family: 179
CPU family: 6
Model: 173
Thread(s) per core: 1
Core(s) per socket: 48
Socket(s): 2
Stepping: 1
BogoMIPS: 5400.00
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
pdpelgb 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 sse3 sdbg fma cx16
xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt
tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm
3dnowprefetch cpuid_fault epb cat_l3 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 hle avx2 smep bmi2 erms invpcid
rtm 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 hfi vnni 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 ibt amx_bf16 avx512_fp16
amx_tile amx_int8 flush_lld arch_capabilities

Virtualization: VT-x
Lld cache: 4.5 MiB (96 instances)
Lli cache: 6 MiB (96 instances)
```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

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

Test Date: Mar-2025  
Hardware Availability: Mar-2025  
Software Availability: Jun-2024

## Platform Notes (Continued)

```

L2 cache: 192 MiB (96 instances)
L3 cache: 576 MiB (2 instances)
NUMA node(s): 4
NUMA node0 CPU(s): 0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46
NUMA node1 CPU(s): 48,50,52,54,56,58,60,62,64,66,68,70,72,74,76,78,80,82,84,86,88,90,92,94
NUMA node2 CPU(s): 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47
NUMA node3 CPU(s): 49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,83,85,87,89,91,93,95
Vulnerability Gather data sampling: Not affected
Vulnerability Itlb multihit: Not affected
Vulnerability Lltf: Not affected
Vulnerability Mds: Not affected
Vulnerability Melttdown: 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 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	4.5M	12	Data	1	64	1	64
L1i	64K	6M	16	Instruction	1	64	1	64
L2	2M	192M	16	Unified	2	2048	1	64
L3	288M	576M	16	Unified	3	294912	1	64

8. numactl --hardware

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

```

available: 4 nodes (0-3)
node 0 cpus: 0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46
node 0 size: 128582 MB
node 0 free: 127020 MB
node 1 cpus: 48,50,52,54,56,58,60,62,64,66,68,70,72,74,76,78,80,82,84,86,88,90,92,94
node 1 size: 129017 MB
node 1 free: 118424 MB
node 2 cpus: 1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47
node 2 size: 129017 MB
node 2 free: 128530 MB
node 3 cpus: 49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,83,85,87,89,91,93,95
node 3 size: 128995 MB
node 3 free: 128599 MB
node distances:
node  0  1  2  3
0:  10  12  21  21
1:  12  10  21  21
2:  21  21  10  12
3:  21  21  12  10

```

9. /proc/meminfo

MemTotal: 527988516 kB

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

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

Test Date: Mar-2025  
Hardware Availability: Mar-2025  
Software Availability: Jun-2024

## Platform Notes (Continued)

10. who -r  
run-level 3 Mar 9 17:59

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 firewalld getty@ irqbalance issue-generator kbdsettings klog lvm2-monitor nscd nvme-fc-boot-connections nvme-fc-autoconnect postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore wickedd wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny wpa_supplicant
enabled-runtime	systemd-remount-fs
disabled	NetworkManager NetworkManager-dispatcher NetworkManager-wait-online accounts-daemon autofsd autoyast-initscripts blk-availability bluetooth-mesh boot-sysctl ca-certificates chrony-wait chronyd console-getty cups cups-browsed debug-shell dmraid-activation dnsmasq ebttables exchange-bmc-os-info fsidd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievd 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 systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysexit systemd-time-wait-sync systemd-timesyncd 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=1d10f0af-4b17-4d18-ba8a-bacfaf841f6e  
splash=silent  
resume=/dev/disk/by-uuid/f8ac12e2-ca56-4f3b-a824-95169c852a50  
mitigations=auto  
quiet  
security=apparmor

14. cpupower frequency-info  
analyzing CPU 89:  
Unable to determine current policy  
boost state support:  
Supported: yes  
Active: yes

kernel.	vm.	
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

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Mar-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

## Platform Notes (Continued)

```

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

```

```

-----
16. /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

```

```

-----
17. /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

```

```

-----
18. OS release
From /etc/*-release /etc/*-version
os-release SUSE Linux Enterprise Server 15 SP6

```

```

-----
19. Disk information
SPEC is set to: /mnt/ramdisk/cpu2017-1.1.9-ic2024.1
Filesystem Type Size Used Avail Use% Mounted on
tmpfs      tmpfs  70G  5.0G  66G   8% /mnt/ramdisk

```

```

-----
20. /sys/devices/virtual/dmi/id
Vendor:      Dell Inc.
Product:     PowerEdge R770
Product Family: PowerEdge
Serial:      1234567

```

```

-----
21. 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:
1x 002C069D002C MTC20F2085S1RC64BD1 USFF 32 GB 2 rank 6400
15x 00CE063200CE M321R4GA3PB1-CCPPC 32 GB 2 rank 6400

```

```

-----
22. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor:      Dell Inc.
BIOS Version:     1.2.6
BIOS Date:        02/26/2025

```

(Continued on next page)





# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

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

Test Date: Mar-2025  
Hardware Availability: Mar-2025  
Software Availability: Jun-2024

## Platform Notes (Continued)

BIOS Revision: 1.2

## 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  
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.  
=====

=====  
Fortran | 648.exchange2\_s(base, peak)  
=====

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

## 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

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Mar-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

## Base Portability Flags (Continued)

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 -xsapphirerapids -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 -xsapphirerapids -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 -xsapphirerapids -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



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Mar-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

## Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(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 -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.profdata(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 -xsapphirerapids -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-ic2024-official-linux64.html>

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.13.html>



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Dell Inc.

SPECspeed®2017\_int\_base = 14.2

PowerEdge R770 (Intel Xeon 6747P)

SPECspeed®2017\_int\_peak = 14.4

**CPU2017 License:** 6573

**Test Sponsor:** Dell Inc.

**Tested by:** Dell Inc.

**Test Date:** Mar-2025

**Hardware Availability:** Mar-2025

**Software Availability:** Jun-2024

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

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.xml>

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.13.xml>

SPEC CPU and SPECspeed 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 v1.1.9 on 2025-03-09 18:04:50-0400.

Report generated on 2025-03-28 09:23:02 by CPU2017 PDF formatter v6716.

Originally published on 2025-03-27.