



SPEC CPU®2017 Integer Rate Result

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Dell Inc.

SPECrate®2017_int_base = 1610

PowerEdge R770AP (Intel Xeon 6960P)

SPECrate®2017_int_peak = 1630

CPU2017 License: 6573

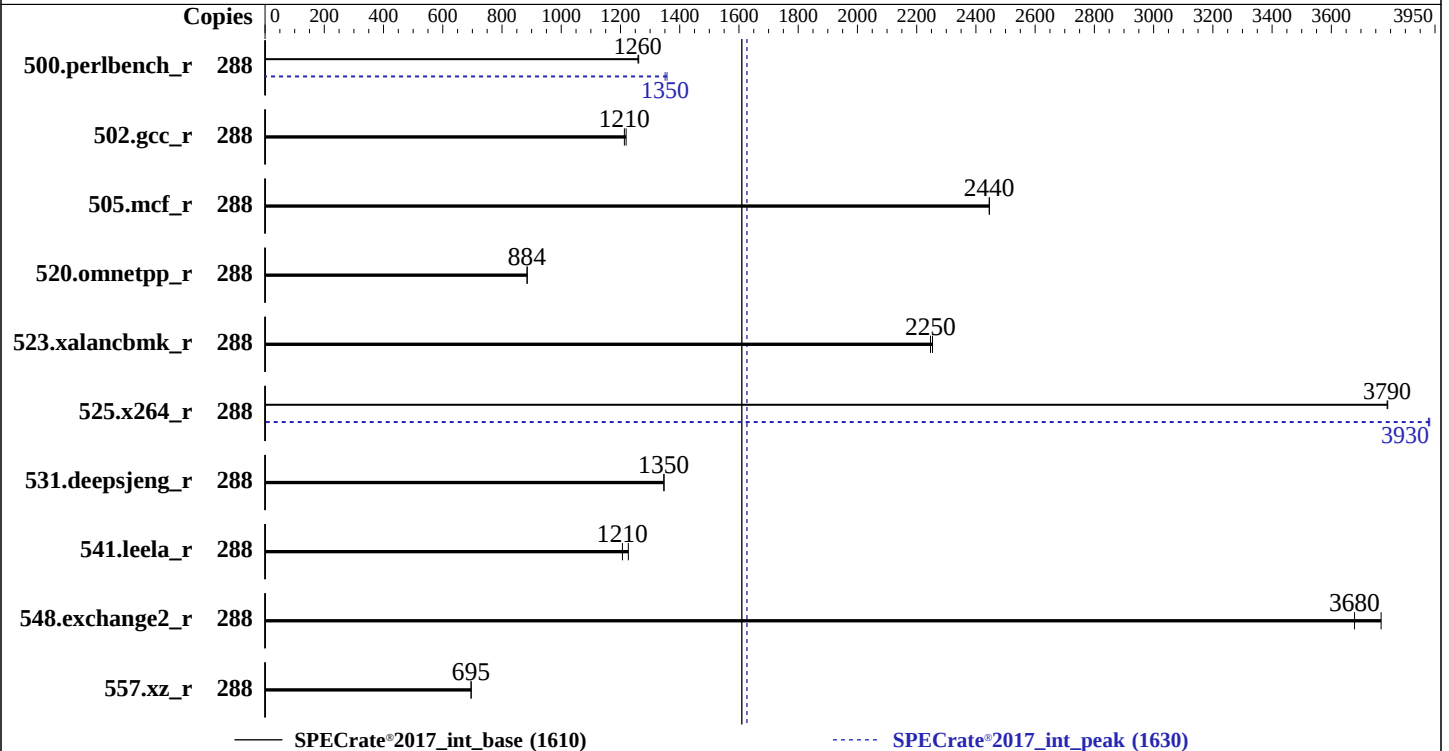
Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Nov-2025

Hardware Availability: Oct-2025

Software Availability: Sep-2025



Hardware

CPU Name: Intel Xeon 6960P
Max MHz: 3900
Nominal: 2700
Enabled: 144 cores, 2 chips, 2 threads/core
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: 432 MB I+D on chip per chip
Other: None
Memory: 1536 GB (24 x 64 GB 2Rx4 PC5-6400B-R)
Storage: 150 GB on tmpfs
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 16.0
6.12.0-160000.4-default
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: No
Firmware: Version 1.1.5 released Oct-2025
File System: tmpfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other: None
Power Management: BIOS set to prefer performance at the cost of
additional power usage.



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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
500.perlbench_r	288	364	1260	363	1260			288	339	1350	338	1360		
502.gcc_r	288	336	1210	335	1220			288	336	1210	335	1220		
505.mcf_r	288	190	2450	190	2440			288	190	2450	190	2440		
520.omnetpp_r	288	427	884	427	885			288	427	884	427	885		
523.xalancbmk_r	288	135	2250	135	2250			288	135	2250	135	2250		
525.x264_r	288	133	3790	133	3790			288	128	3930	128	3930		
531.deepsjeng_r	288	245	1350	245	1350			288	245	1350	245	1350		
541.leela_r	288	395	1210	389	1230			288	395	1210	389	1230		
548.exchange2_r	288	205	3680	200	3770			288	205	3680	200	3770		
557.xz_r	288	447	696	447	695			288	447	696	447	695		

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

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Environment Variables Notes

Environment variables set by runcpu before the start of the run:

LD_LIBRARY_PATH =

"/mnt/ramdisk/cpu2017-1.1.9-ic2025.2/lib/intel64:/mnt/ramdisk/cpu2017-1.1.9-ic2025.2/lib/ia32:/mnt/ramdisk/cpu2017-1.1.9-ic2025.2/je5.0.1-32"

MALLOC_CONF = "retain:true"

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>

Benchmark run from a 150 GB ramdisk created with the cmd: "mount -t tmpfs -o size=150G tmpfs /mnt/ramdisk"



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Platform Notes

BIOS Settings:

Sub NUMA Cluster : Enabled

System Profile : Custom

CPU Power Management : Maximum Performance

C-States : Autonomous

Latency Optimized Mode : Enabled

Energy Efficient Policy : Performance

Sysinfo program /mnt/ramdisk/cpu2017-1.1.9-ic2025.2/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on S123456-R770AP Mon Nov 10 15:09:47 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. Systemd service manager version: systemd 257 (257.7+suse.19.ga0dfd5de4c)
11. Services, from systemctl list-unit-files
12. Linux kernel boot-time arguments, from /proc/cmdline
13. cpupower frequency-info
14. sysctl
15. /sys/kernel/mm/transparent_hugepage
16. /sys/kernel/mm/transparent_hugepage/khugepaged
17. OS release
18. Disk information
19. /sys/devices/virtual/dmi/id
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```
1. uname -a
Linux S123456-R770AP 6.12.0-160000.4-default #1 SMP PREEMPT_DYNAMIC Wed Aug 20 16:45:35 UTC 2025 (1147121)
x86_64 x86_64 x86_64 GNU/Linux
```

```
2. w
15:09:48 up 2 min, 1 user, load average: 2.35, 2.14, 0.91
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU   WHAT
root      tty1      -             15:08    28.00s 0.95s  ?     /bin/bash
/home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=6.4_T17 --output_format html,pdf,txt
```

```
3. Username
From environment variable $USER: root
```

```
4. ulimit -a
```

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Platform Notes (Continued)

```
real-time non-blocking time (microseconds, -R) unlimited
core file size (blocks, -c) unlimited
data seg size (kbytes, -d) unlimited
scheduling priority (-e) 0
file size (blocks, -f) unlimited
pending signals (-i) 6189619
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) 6189619
virtual memory (kbytes, -v) unlimited
file locks (-x) unlimited
```

```
-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize=47
login -- root
-bash
/bin/bash /home/DellFiles/bin/DELL_rate.sh
/bin/bash /home/DellFiles/bin/dell-run-main.sh rate
/bin/bash /home/DellFiles/bin/dell-run-main.sh rate
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=6.4_T17 --output_format
html,pdf,txt
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=6.4_T17 --output_format
html,pdf,txt
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=288 -c
ic2025.2-linux64-graniterapids-rate-20250605.cfg --define smt-on --define cores=144 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base,peak -o all --iterations 2 --define
DL-VERS=6.4_T17 --output_format html,pdf,txt intrate
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=288 --configfile
ic2025.2-linux64-graniterapids-rate-20250605.cfg --define smt-on --define cores=144 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base,peak --output_format all --iterations 2
--define DL-VERS=6.4_T17 --output_format html,pdf,txt --nopower --runmode rate --tune base:peak --size
refrate intrate --nopreenv --note-preenv --logfile $SPEC/tmp/CPU2017.001/templogs/preenv.intrate.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) 6960P
vendor_id      : GenuineIntel
cpu family     : 6
model          : 173
stepping       : 1
microcode      : 0x10003f3
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi spectre_v2_user
cpu cores      : 72
siblings       : 144
2 physical ids (chips)
288 processors (hardware threads)
physical id 0: core ids 0-23,64-87,128-151
physical id 1: core ids 0-23,64-87,128-151
physical id 0: apicids 0-47,128-175,256-303
physical id 1: apicids 512-559,640-687,768-815
```

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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 2.41.1:

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):	288
On-line CPU(s) list:	0-287
Vendor ID:	GenuineIntel
Model name:	Intel(R) Xeon(R) 6960P
CPU family:	6
Model:	173
Thread(s) per core:	2
Core(s) per socket:	72
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 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 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 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 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 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_lid arch_capabilities
Virtualization:	VT-x
L1d cache:	6.8 MiB (144 instances)
L1i cache:	9 MiB (144 instances)
L2 cache:	288 MiB (144 instances)
L3 cache:	864 MiB (2 instances)
NUMA node(s):	6
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, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 1, 76, 178, 180, 182, 184, 186, 188, 190
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, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238
NUMA node2 CPU(s):	96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286
NUMA node3 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, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 1, 77, 179, 181, 183, 185, 187, 189, 191

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Platform Notes (Continued)

NUMA node4 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, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239

NUMA node5 CPU(s): 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287

Vulnerability Gather data sampling: Not affected

Vulnerability Indirect target selection: 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; PBRSE-eIBRS Not affected; BHI BHI_DIS_S

Vulnerability Srbds: Not affected

Vulnerability Tsa: 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	6.8M	12	Data	1	64	1	64
L1i	64K	9M	16	Instruction	1	64	1	64
L2	2M	288M	16	Unified	2	2048	1	64
L3	432M	864M	16	Unified	3	442368	1	64

8. numactl --hardware

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

available: 6 nodes (0-5)

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, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190

node 0 size: 257599 MB

node 0 free: 244978 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, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238

node 1 size: 258030 MB

node 1 free: 257773 MB

node 2 cpus:

96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286

node 2 size: 258030 MB

node 2 free: 257792 MB

node 3 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, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191

node 3 size: 258030 MB

node 3 free: 257791 MB

node 4 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, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239

node 4 size: 257988 MB

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Platform Notes (Continued)

node 4 free: 257743 MB
node 5 cpus:
97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287

node 5 size: 257952 MB

node 5 free: 257726 MB

node distances:

node	0	1	2	3	4	5
0:	10	15	17	21	28	26
1:	15	10	15	23	26	23
2:	17	15	10	26	23	21
3:	21	28	26	10	15	17
4:	23	26	23	15	10	15
5:	26	23	21	17	15	10

9. /proc/meminfo

MemTotal: 1584774492 kB

'who -r' did not return a run level

10. Systemd service manager version: systemd 257 (257.7+suse.19.ga0dfd5de4c)

Default Target	Status
multi-user	running

11. Services, from systemctl list-unit-files

STATE	UNIT FILES
enabled	NetworkManager NetworkManager-dispatcher NetworkManager-wait-online audit-rules auditd chronyd dbus-broker getty@ irqbalance issue-generator kbdsettings klog lvm2-monitor nvme-fc-boot-connections nvme-fc-autoconnect rollback rsyslog smartd soft-reboot-cleanup sshd systemd-pstore wpa_supplicant wtmpdb-update-boot
enabled-runtime	systemd-remount-fs
disabled	blk-availability boot-sysctl ca-certificates ca-certificates-setup chrony-wait console-getty debug-shell dnsmasq firewalld gpm grub2-once hwloc-dump-hwdata issue-add-ssh-keys kernel-sysctl kexec-load lastlog2-import lunmask lvm-devices-import man-db-create multipathd nftables nis-domainname rpmconfigcheck rsyncd serial-getty@ setup-systemd-proxy-env smartd_generate_opts snmpd snmptrapd systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd systemd-udev-load-credentials udisks2 wpa_supplicant@
indirect	systemd-userdbd

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

BOOT_IMAGE=/boot/vmlinuz-6.12.0-160000.4-default
root=UUID=e4f947ce-14ce-42f7-b3ba-64120f83c4e6
mitigations=auto
quiet
security=selinux
selinux=1

13. cpupower frequency-info

analyzing CPU 0:
Unable to determine current policy
boost state support:
Supported: yes
Active: yes

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Platform Notes (Continued)

```
-----
14. 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

-----
15. /sys/kernel/mm/transparent_hugepage
defrag          always defer defer+madvice [madvice] never
enabled         [always] madvice never
hpage_pmd_size  2097152
shmem_enabled   always within_size advise [never] deny force

-----
16. /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

-----
17. OS release
From /etc/*-release /etc/*-version
os-release SUSE Linux Enterprise Server 16.0

-----
18. Disk information
SPEC is set to: /mnt/ramdisk/cpu2017-1.1.9-ic2025.2
Filesystem      Type  Size  Used Avail Use% Mounted on
tmpfs            tmpfs 150G  5.8G 145G   4% /mnt/ramdisk

-----
19. /sys/devices/virtual/dmi/id
Vendor:         Dell Inc.
Product:        PowerEdge R770AP
Product Family: PowerEdge
Serial:         S123456

-----
20. dmidecode
```

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Platform Notes (Continued)

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:

20x 00AD042300AD HMC94AHBRA480N 64 GB 2 rank 6400

2x 00AD063200AD HMC94AHBRA283N 64 GB 2 rank 6400

2x 00CE042300CE M321R8GA0PB2-CCPEC 64 GB 2 rank 6400

21. BIOS

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

BIOS Vendor: Dell Inc.

BIOS Version: 1.1.5

BIOS Date: 10/22/2025

BIOS Revision: 1.1

Compiler Version Notes

```
=====
C      | 500.perlbench_r(base, peak) 502.gcc_r(base, peak) 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 2025.2.0 Build 20250605
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```
=====
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 2025.2.0 Build 20250605
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```
=====
Fortran | 548.exchange2_r(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



SPEC CPU®2017 Integer Rate Result

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Dell Inc.

SPECrate®2017_int_base = 1610

PowerEdge R770AP (Intel Xeon 6960P)

SPECrate®2017_int_peak = 1630

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Nov-2025

Hardware Availability: Oct-2025

Software Availability: Sep-2025

Base Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -DSPEC_LP64
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

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
-L/home/specdev/intel-compilers/compiler/2025.2/lib -lqkmallo

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/home/specdev/intel-compilers/compiler/2025.2/lib -lqkmallo

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 -auto
-L/home/specdev/intel-compilers/compiler/2025.2/lib -lqkmallo

Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx



SPEC CPU®2017 Integer Rate Result

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Dell Inc.

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PowerEdge R770AP (Intel Xeon 6960P)

SPECrate®2017_int_peak = 1630

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Nov-2025

Hardware Availability: Oct-2025

Software Availability: Sep-2025

Peak Portability Flags

Same as Base Portability Flags

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-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-fno-strict-overflow -fno-strict-aliasing
-L/home/specdev/intel-compilers/compiler/2025.2/lib
-lqkmallo
```

502.gcc_r: basepeak = yes

505.mcf_r: basepeak = yes

```
525.x264_r: -w -std=c11 -m64 -Wl,-z,muldefs -xgraniterapids -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fno-alias
-L/home/specdev/intel-compilers/compiler/2025.2/lib
-lqkmallo
```

557.xz_r: basepeak = yes

C++ benchmarks:

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



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

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