SPEC CPU®2026 Integer Speed Result

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Dell Inc.

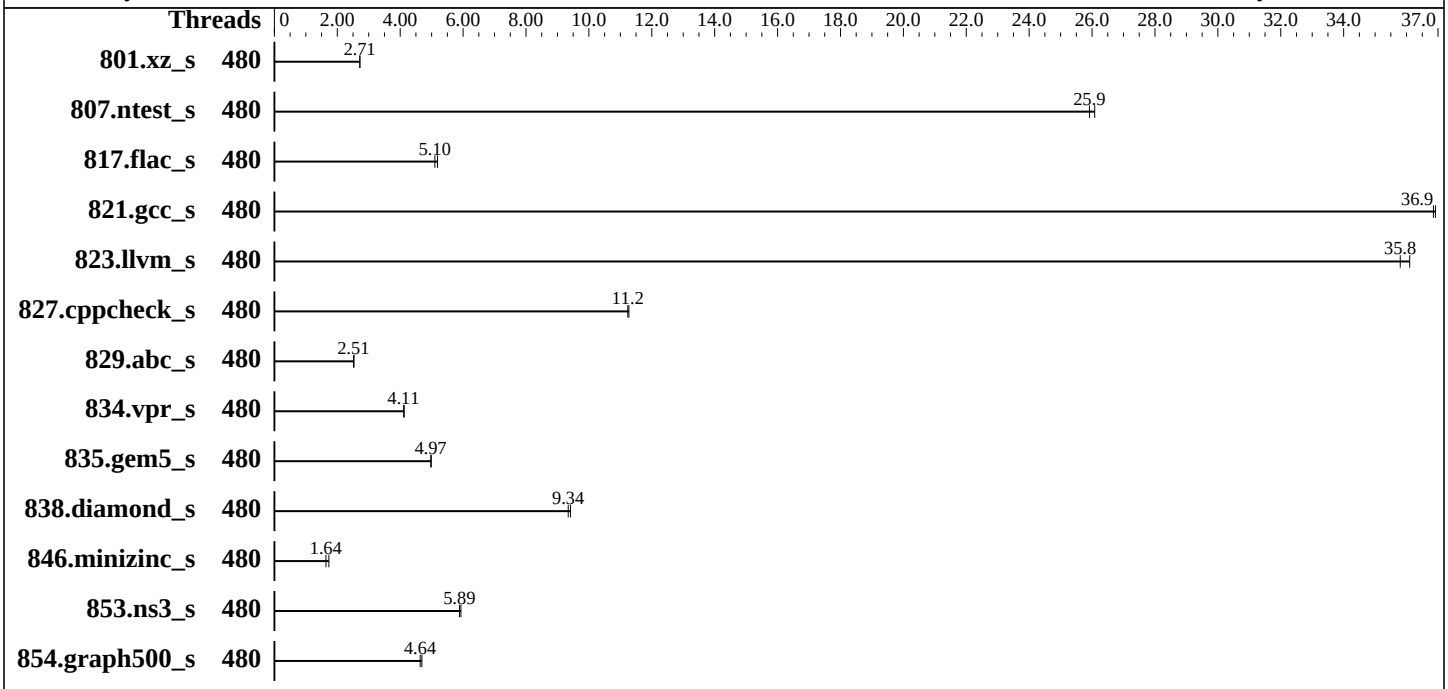
PowerEdge R770AP (Intel Xeon 6978P)

SPECspeed®2026_int_base = 7.09

SPECspeed®2026_int_peak = Not Run

CPU2026 License: 6573
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Feb-2026
Hardware Availability: Dec-2025
Software Availability: Nov-2025



Hardware

CPU Name:	Intel Xeon 6978P
Max MHz:	3900
Nominal:	2100
Enabled:	240 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:	504 MB I+D on chip per chip
Other:	None
Memory:	1536 GB (24 x 64 GB 2Rx4 PC5-6400B-R)
Storage:	240 GB on tmpfs
Cooling:	Air
Other:	None

Software

OS:	SUSE Linux Enterprise Server 16.0 6.12.0-160000.5-default
Compiler:	C/C++: Version 2025.3 of Intel oneAPI DPC++/C++ Compiler for Linux; Fortran: Version 2025.3 of Intel Fortran Compiler for Linux
Compiler Category:	Vendor
Firmware:	Version 1.1.6 released Nov-2025
File System:	tmpfs
System State:	Run level 5 (graphical multi-user)
Base Pointers:	64-bit
Peak Pointers:	Not Applicable
Other:	jemalloc memory allocator v5.3
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
801.xz_s	480	**218**	**2.71**	217	2.72									
807.ntest_s	480	43.7	26.1	**44.0**	**25.9**									
817.flac_s	480	**340**	**5.10**	335	5.19									
821.gcc_s	480	**56.2**	**36.9**	56.1	36.9									
823.llvm_s	480	39.1	36.1	**39.4**	**35.8**									
827.cppcheck_s	480	**99.6**	**11.2**	99.3	11.3									
829.abc_s	480	328	2.53	**330**	**2.51**									
834.vpr_s	480	231	4.13	**232**	**4.11**									
835.gem5_s	480	228	4.99	**229**	**4.97**									
838.diamond_s	480	**107**	**9.34**	106	9.42									
846.minizinc_s	480	**409**	**1.64**	387	1.73									
853.ns3_s	480	194	5.93	**196**	**5.89**									
854.graph500_s	480	130	4.69	**132**	**4.64**									

SPECspeed®2026_int_base = 7.09

SPECspeed®2026_int_peak = Not Run

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:
LD_LIBRARY_PATH = "/mnt/ramdisk/cpu2026rc2/lib"
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 CentOS Stream 9.
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 CentOS Stream 9, and the system compiler gcc 11.5.0
sources available from jemalloc.net or https://github.com/jemalloc/jemalloc/releases
Benchmark run from a 240 GB ramdisk created with the cmd: "mount -t tmpfs -o size=240G tmpfs /mnt/ramdisk"
```

Platform Notes

```
BIOS Settings:
          Sub NUMA Cluster : Enabled

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

Sysinfo program /mnt/ramdisk/cpu2026rc2/bin/sysinfo
Rev: 069f95da7e7f5d81b2ce48a82150e54f
running on R7701AP-R770AP Fri Feb  6 02:36:29 2026

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

------------------------------------------------------------
Table of contents
------------------------------------------------------------
 1. uname -srvm
 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
20. dmidecode
21. BIOS
------------------------------------------------------------

------------------------------------------------------------
1. uname -srvm
```

(Continued on next page)

Platform Notes (Continued)

```
  Linux 6.12.0-160000.5-default #1 SMP PREEMPT_DYNAMIC Wed Sep 10 15:26:25 UTC 2025 (3545bbd) x86_64

------------------------------------------------------------
2. w
   02:36:29 up 5 min,  1 user,  load average: 0.91, 4.02, 2.44
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU  WHAT
  root     tty1     -                02:31   37.00s  1.16s   ?    /bin/bash
 /home/DellFiles/bin/Intel/dell-run-speccpu.sh speed --define DL-VERS=7.0_T01 --output_format html,pdf,txt
  --tune base

------------------------------------------------------------
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
  file size                   (blocks, -f) unlimited
  pending signals                     (-i) 6189318
  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) 6189318
  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_speed.sh --tune base
 /bin/bash /home/DellFiles/bin/dell-run-main.sh speed --tune base
 /bin/bash /home/DellFiles/bin/dell-run-main.sh speed --tune base
 /bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh speed --define DL-VERS=7.0_T01 --output_format
   html,pdf,txt --tune base
 /bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh speed --define DL-VERS=7.0_T01 --output_format
   html,pdf,txt --tune base
 runcpu --nobuild --reportable --action validate --define default-platform-flags -c
```

(Continued on next page)

Platform Notes (Continued)

```
   ic2025.3-graniterapids-cpu2026-0.902-speed-20260121.cfg --threads 480 --define cores=240 --tune base,peak
   -o all --define intspeedaffinity --define smt-on --define drop_caches --iterations 2 --define base_only
    --define DL-VERS=7.0_T01 --output_format html,pdf,txt --tune base intspeed
 runcpu --nobuild --reportable --action validate --define default-platform-flags --configfile
   ic2025.3-graniterapids-cpu2026-0.902-speed-20260121.cfg --threads 480 --define cores=240 --tune base,peak
   --output_format all --define intspeedaffinity --define smt-on --define drop_caches --iterations 2 --define
   base_only --define DL-VERS=7.0_T01 --output_format html,pdf,txt --tune base --nopower --runmode speed
    --tune base --size refspeed intspeed --nopreenv --note-preenv --logfile
   $SPEC/tmp/CPU2026.001/templogs/preenv.intspeed.001.0.log --lognum 001.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /mnt/ramdisk/cpu2026rc2

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : Intel(R) Xeon(R) 6978P
    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       : 120
    siblings        : 240
    2 physical ids (chips)
    480 processors (hardware threads)
    physical id 0: core ids 0-39,64-103,128-167
    physical id 1: core ids 0-39,64-103,128-167
    physical id 0: apicids 0-79,128-207,256-335
    physical id 1: apicids 512-591,640-719,768-847
 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):                                  480
  On-line CPU(s) list:                     0-479
  Vendor ID:                               GenuineIntel
  Model name:                              Intel(R) Xeon(R) 6978P
  CPU family:                              6
  Model:                                   173
  Thread(s) per core:                      2
```

(Continued on next page)

Platform Notes (Continued)

```
  Core(s) per socket:                  120
  Socket(s):                           2
  Stepping:                            1
  BogoMIPS:                            4200.00
  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_l1d arch_capabilities
  Virtualization:                      VT-x
  L1d cache:                           11.3 MiB (240 instances)
  L1i cache:                           15 MiB (240 instances)
  L2 cache:                            480 MiB (240 instances)
  L3 cache:                            1008 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
                                       ,48,50,52,54,56,58,60,62,64,66,68,70,72,74,76,78,240,242,244,246,2
                                       48,250,252,254,256,258,260,262,264,266,268,270,272,274,276,278,280
                                       ,282,284,286,288,290,292,294,296,298,300,302,304,306,308,310,312,3
                                       14,316,318
  NUMA node1 CPU(s):                   80,82,84,86,88,90,92,94,96,98,100,102,104,106,108,110,112,114,116,
                                       118,120,122,124,126,128,130,132,134,136,138,140,142,144,146,148,15
                                       0,152,154,156,158,320,322,324,326,328,330,332,334,336,338,340,342,
                                       344,346,348,350,352,354,356,358,360,362,364,366,368,370,372,374,37
                                       6,378,380,382,384,386,388,390,392,394,396,398
  NUMA node2 CPU(s):                   160,162,164,166,168,170,172,174,176,178,180,182,184,186,188,190,19
                                       2,194,196,198,200,202,204,206,208,210,212,214,216,218,220,222,224,
                                       226,228,230,232,234,236,238,400,402,404,406,408,410,412,414,416,41
                                       8,420,422,424,426,428,430,432,434,436,438,440,442,444,446,448,450,
                                       452,454,456,458,460,462,464,466,468,470,472,474,476,478
  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
                                       ,49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,241,243,245,247,2
```

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Platform Notes (Continued)

```
                                    49,251,253,255,257,259,261,263,265,267,269,271,273,275,277,279,281
                                    ,283,285,287,289,291,293,295,297,299,301,303,305,307,309,311,313,3
                                              15,317,319
  NUMA node4 CPU(s):                81,83,85,87,89,91,93,95,97,99,101,103,105,107,109,111,113,115,117,
                                    119,121,123,125,127,129,131,133,135,137,139,141,143,145,147,149,15
                                    1,153,155,157,159,321,323,325,327,329,331,333,335,337,339,341,343,
                                    345,347,349,351,353,355,357,359,361,363,365,367,369,371,373,375,37
                                              7,379,381,383,385,387,389,391,393,395,397,399
  NUMA node5 CPU(s):                161,163,165,167,169,171,173,175,177,179,181,183,185,187,189,191,19
                                    3,195,197,199,201,203,205,207,209,211,213,215,217,219,221,223,225,
                                    227,229,231,233,235,237,239,401,403,405,407,409,411,413,415,417,41
                                    9,421,423,425,427,429,431,433,435,437,439,441,443,445,447,449,451,
                                    453,455,457,459,461,463,465,467,469,471,473,475,477,479
   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;
                                                  PBRSB-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    11.3M   12 Data            1     64        1             64
      L1i       64K      15M   16 Instruction     1     64        1             64
      L2         2M     480M   16 Unified         2   2048        1             64
      L3       504M    1008M   16 Unified         3 516096        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:
   0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,70,72,7
   4,76,78,240,242,244,246,248,250,252,254,256,258,260,262,264,266,268,270,272,274,276,278,280,282,284,286,288
    ,290,292,294,296,298,300,302,304,306,308,310,312,314,316,318
```

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Platform Notes (Continued)

```
   node 0 size: 257586 MB
   node 0 free: 256680 MB
   node 1 cpus:
  80,82,84,86,88,90,92,94,96,98,100,102,104,106,108,110,112,114,116,118,120,122,124,126,128,130,132,134,136,1
  38,140,142,144,146,148,150,152,154,156,158,320,322,324,326,328,330,332,334,336,338,340,342,344,346,348,350,
   352,354,356,358,360,362,364,366,368,370,372,374,376,378,380,382,384,386,388,390,392,394,396,398
   node 1 size: 258018 MB
   node 1 free: 228824 MB
   node 2 cpus:
  160,162,164,166,168,170,172,174,176,178,180,182,184,186,188,190,192,194,196,198,200,202,204,206,208,210,212
  ,214,216,218,220,222,224,226,228,230,232,234,236,238,400,402,404,406,408,410,412,414,416,418,420,422,424,42
  6,428,430,432,434,436,438,440,442,444,446,448,450,452,454,456,458,460,462,464,466,468,470,472,474,476,478
   node 2 size: 257977 MB
   node 2 free: 257228 MB
   node 3 cpus:
  1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51,53,55,57,59,61,63,65,67,69,71,73,7
  5,77,79,241,243,245,247,249,251,253,255,257,259,261,263,265,267,269,271,273,275,277,279,281,283,285,287,289
   ,291,293,295,297,299,301,303,305,307,309,311,313,315,317,319
   node 3 size: 258018 MB
   node 3 free: 257160 MB
   node 4 cpus:
  81,83,85,87,89,91,93,95,97,99,101,103,105,107,109,111,113,115,117,119,121,123,125,127,129,131,133,135,137,1
  39,141,143,145,147,149,151,153,155,157,159,321,323,325,327,329,331,333,335,337,339,341,343,345,347,349,351,
   353,355,357,359,361,363,365,367,369,371,373,375,377,379,381,383,385,387,389,391,393,395,397,399
   node 4 size: 258018 MB
   node 4 free: 257025 MB
   node 5 cpus:
  161,163,165,167,169,171,173,175,177,179,181,183,185,187,189,191,193,195,197,199,201,203,205,207,209,211,213
  ,215,217,219,221,223,225,227,229,231,233,235,237,239,401,403,405,407,409,411,413,415,417,419,421,423,425,42
  7,429,431,433,435,437,439,441,443,445,447,449,451,453,455,457,459,461,463,465,467,469,471,473,475,477,479
   node 5 size: 257939 MB
   node 5 free: 256871 MB
   node distances:
   node     0    1    2    3    4    5
      0:   10   15   17   29   29   29
      1:   15   10   15   29   29   29
      2:   17   15   10   29   29   29
      3:   29   29   29   10   15   17
      4:   29   29   29   15   10   15
      5:   29   29   29   17   15   10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1584700848 kB

'who -r' did not return a run level
```


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Platform Notes (Continued)

```
------------------------------------------------------------
10. Systemd service manager version: systemd 257 (257.7+suse.19.ga0dfd5de4c)
  Default Target  Status
  graphical       running

------------------------------------------------------------
11. Services, from systemctl list-unit-files
  STATE            UNIT FILES
  enabled          NetworkManager NetworkManager-dispatcher NetworkManager-wait-online audit-rules auditd
                   chronyd dbus-broker firewalld getty@ irqbalance issue-generator kbdsettings klog
                   lvm2-monitor nvmefc-boot-connections nvmf-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 gpm grub2-once hwloc-dump-hwdata issue-add-ssh-keys
                   kea-ctrl-agent kea-dhcp-ddns kea-dhcp4 kea-dhcp6 kernel-sysctl kexec-load lastlog2-import
                   lunmask lvm-devices-import man-db-create multipathd named 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-6.12.0-160000.5-default
  root=UUID=187f5822-5433-42e1-bee8-2e104457c7c5
  mitigations=auto
  quiet
  security=selinux
  selinux=1

------------------------------------------------------------
13. cpupower frequency-info
  analyzing CPU 423:
    Unable to determine current policy
    boost state support:
      Supported: yes
      Active: yes

------------------------------------------------------------
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
```

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Platform Notes (Continued)

```
  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+madvise [madvise] never
  enabled         [always] madvise 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/cpu2026rc2
  Filesystem     Type   Size  Used Avail Use% Mounted on
  tmpfs          tmpfs  240G   13G  228G   6% /mnt/ramdisk

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

(Continued on next page)

Platform Notes (Continued)

```
     Product Family: PowerEdge
     Serial:         R7701AP

 ------------------------------------------------------------
 20. 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:
      13x 00CE063200CE M321R8GA0PB1-CCPQC 64 GB 2 rank 6400
      11x 00CE063200CE M321R8GA0PB2-CCPKC 64 GB 2 rank 6400


 ------------------------------------------------------------
 21. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       Dell Inc.
    BIOS Version:      1.1.6
    BIOS Date:         11/06/2025
    BIOS Revision:     1.1
```

Compiler Version Notes

```
==============================================================================
C      | 854.graph500_s(base)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
C++    | 807.ntest_s(base) 827.cppcheck_s(base) 853.ns3_s(base)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
C++, C | 801.xz_s(base) 817.flac_s(base) 821.gcc_s(base) 823.llvm_s(base)
       | 829.abc_s(base) 834.vpr_s(base) 835.gem5_s(base) 838.diamond_s(base)
       | 846.minizinc_s(base)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
```

(Continued on next page)

Compiler Version Notes (Continued)

```
  Version 2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Benchmarks using both C and C++:
icpx icx

Base Portability Flags

801.xz_s: -DSPEC_LP64
807.ntest_s: -DSPEC_LP64
817.flac_s: -DSPEC_LP64
821.gcc_s: -DSPEC_LP64
823.llvm_s: -DSPEC_LP64
827.cppcheck_s: -DSPEC_LP64
829.abc_s: -DSPEC_LP64
834.vpr_s: -DSPEC_LP64
835.gem5_s: -DSPEC_LP64
838.diamond_s: -DSPEC_LP64
846.minizinc_s: -DSPEC_LP64
853.ns3_s: -DSPEC_LP64
854.graph500_s: -DSPEC_LP64

Base Optimization Flags

C benchmarks:
-m64 -std=c18 -Wl,-z,muldefs -xgraniterapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

C++ benchmarks:

(Continued on next page)

Base Optimization Flags (Continued)

807.ntest_s: `-m64 -std=c++17 -Wl,-z,muldefs -xgraniterapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc-5.3.0/lib -ljemalloc`

827.cppcheck_s: `-m64 -std=c++17 -Wl,-z,muldefs -xgraniterapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -pthread -L/usr/local/jemalloc-5.3.0/lib -ljemalloc`

853.ns3_s: `-m64 -std=c++17 -Wl,-z,muldefs -xgraniterapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/jemalloc-5.3.0/lib -ljemalloc`

Benchmarks using both C and C++:

801.xz_s: `-m64 -std=c++17 -std=c18 -Wl,-z,muldefs -xgraniterapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -pthread -L/usr/local/jemalloc-5.3.0/lib -ljemalloc`

817.flac_s: `Same as 801.xz_s`

821.gcc_s: `-m64 -std=c++17 -std=c18 -Wl,-z,muldefs -xgraniterapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/jemalloc-5.3.0/lib -ljemalloc`

823.llvm_s: `Same as 801.xz_s`

829.abc_s: `Same as 821.gcc_s`

834.vpr_s: `Same as 821.gcc_s`

835.gem5_s: `Same as 801.xz_s`

838.diamond_s: `Same as 801.xz_s`

846.minizinc_s: `Same as 801.xz_s`

The flags files that were used to format this result can be browsed at
`http://www.spec.org/cpu2026/results/flags/Intel-ic2025-official-linux64-cpu2026-0.902.html`
`http://www.spec.org/cpu2026/results/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/cpu2026/results/flags/Intel-ic2025-official-linux64-cpu2026-0.902.xml
http://www.spec.org/cpu2026/results/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.19.xml

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For questions about this result, please contact the tester. For other inquiries, please contact info@spec.org.

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