SPEC CPU®2026 Floating Point Rate Result

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Dell Inc.

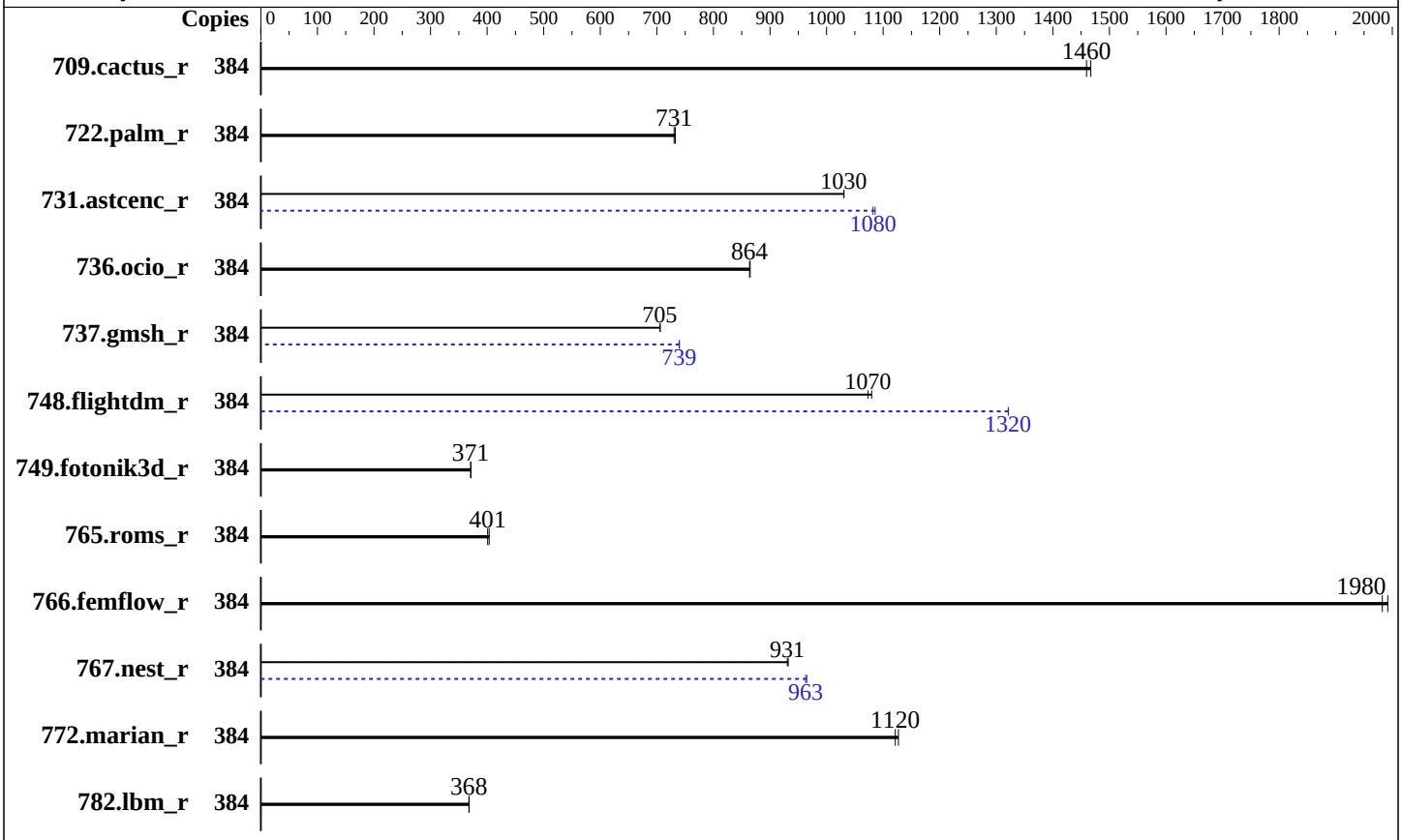
PowerEdge R770AP (Intel Xeon 6952P)

SPECrate®2026_fp_base = 811

SPECrate®2026_fp_peak = 834

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 6952P
Max MHz:	3900
Nominal:	2100
Enabled:	192 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:	480 MB I+D on chip per chip
Other:	None
Memory:	768 GB (24 x 32 GB 2Rx8 PC5-6400B-R)
Storage:	200 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 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	64-bit
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						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
709.cactus_r	384	225	1470	**226**	**1460**			384	225	1470	**226**	**1460**		
722.palm_r	384	**694**	**731**	692	733			384	**694**	**731**	692	733		
731.astcenc_r	384	313	1030	**313**	**1030**			384	**298**	**1080**	297	1090		
736.ocio_r	384	388	865	**389**	**864**			384	388	865	**389**	**864**		
737.gmsh_r	384	250	706	**250**	**705**			384	238	740	**238**	**739**		
748.flightdm_r	384	255	1080	**256**	**1070**			384	**208**	**1320**	208	1320		
749.fotonik3d_r	384	**1197**	**371**	1195	371			384	**1197**	**371**	1195	371		
765.roms_r	384	**1509**	**401**	1499	404			384	**1509**	**401**	1499	404		
766.femflow_r	384	283	1990	**284**	**1980**			384	283	1990	**284**	**1980**		
767.nest_r	384	**327**	**931**	327	932			384	**316**	**963**	316	965		
772.marian_r	384	538	1130	**541**	**1120**			384	538	1130	**541**	**1120**		
782.lbm_r	384	**598**	**368**	597	368			384	**598**	**368**	597	368		

SPECrate®2026_fp_base = 811

SPECrate®2026_fp_peak = 834

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/cpu2026rc2/lib"
MALLOC_CONF = "retain:true"
```

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
```

(Continued on next page)

General Notes (Continued)

```
runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>
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 200 GB ramdisk created with the cmd: "mount -t tmpfs -o size=200G tmpfs /mnt/ramdisk"
```

Platform Notes

```
BIOS Settings:
        Sub NUMA Cluster : Enabled
 SST-Performance Profile : Operating Point 2 | P1: 2.3 GHz, TDP:400w, Core Count:72

          System Profile : Custom
    CPU Power Management : Maximum Performance
                C-States : Autonomous
  Latency Optimized Mode : Enabled
 Energy Efficient Policy : Performance

Sysinfo program /mnt/ramdisk/cpu2026rc2/bin/sysinfo
Rev: 069f95da7e7f5d81b2ce48a82150e54f
running on R7703AP-R770AP Thu Feb  5 13:11:56 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
```

(Continued on next page)

Platform Notes (Continued)

```
 18. Disk information
 19. /sys/devices/virtual/dmi/id
 20. dmidecode
 21. BIOS
------------------------------------------------------------

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

------------------------------------------------------------
 2. w
    13:11:56 up 12:54,  1 user,  load average: 152.77, 319.25, 357.30
   USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU  WHAT
   root     tty1     -                00:19   12:35m  1.44s  0.01s /bin/bash
  /home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=7.0_T01 --output_format html,pdf,txt

------------------------------------------------------------
 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) 3092901
   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) 3092901
   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
```

(Continued on next page)

Platform Notes (Continued)

```
 /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=7.0_T01 --output_format
   html,pdf,txt
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=7.0_T01 --output_format
   html,pdf,txt
runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 384 -c
  ic2025.3-graniterapids-cpu2026-0.902-rate-20260121.cfg --define smt-on --define cores=192 --define
  physicalfirst --define invoke_with_interleave --define drop_caches --tune base,peak -o all --iterations 2
   --define DL-VERS=7.0_T01 --output_format html,pdf,txt fprate
runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 384 --configfile
  ic2025.3-graniterapids-cpu2026-0.902-rate-20260121.cfg --define smt-on --define cores=192 --define
  physicalfirst --define invoke_with_interleave --define drop_caches --tune base,peak --output_format all
  --iterations 2 --define DL-VERS=7.0_T01 --output_format html,pdf,txt --nopower --runmode rate --tune
   base:peak --size refrate fprate --nopreenv --note-preenv --logfile
   $SPEC/tmp/CPU2026.002/templogs/preenv.fprate.002.0.log --lognum 002.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /mnt/ramdisk/cpu2026rc2

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : Intel(R) Xeon(R) 6952P
    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       : 96
    siblings        : 192
    2 physical ids (chips)
    384 processors (hardware threads)
    physical id 0: core ids 0-31,64-95,128-159
    physical id 1: core ids 0-31,64-95,128-159
    physical id 0: apicids 0-63,128-191,256-319
    physical id 1: apicids 512-575,640-703,768-831
  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
```

(Continued on next page)

Platform Notes (Continued)

```
CPU(s):                  384
On-line CPU(s) list:     0-383
Vendor ID:               GenuineIntel
Model name:              Intel(R) Xeon(R) 6952P
CPU family:              6
Model:                   173
Thread(s) per core:      2
Core(s) per socket:      96
Socket(s):               2
Stepping:                1
BogoMIPS:                5000.00
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:               9 MiB (192 instances)
L1i cache:               12 MiB (192 instances)
L2 cache:                384 MiB (192 instances)
L3 cache:                960 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
                         ,48,50,52,54,56,58,60,62,192,194,196,198,200,202,204,206,208,210,2
                         12,214,216,218,220,222,224,226,228,230,232,234,236,238,240,242,244
                         ,246,248,250,252,254
NUMA node1 CPU(s):       64,66,68,70,72,74,76,78,80,82,84,86,88,90,92,94,96,98,100,102,104,
                         106,108,110,112,114,116,118,120,122,124,126,256,258,260,262,264,26
                         6,268,270,272,274,276,278,280,282,284,286,288,290,292,294,296,298,
                         300,302,304,306,308,310,312,314,316,318
NUMA node2 CPU(s):       128,130,132,134,136,138,140,142,144,146,148,150,152,154,156,158,16
                         0,162,164,166,168,170,172,174,176,178,180,182,184,186,188,190,320,
```

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Platform Notes (Continued)

```
                                322,324,326,328,330,332,334,336,338,340,342,344,346,348,350,352,35
                                    4,356,358,360,362,364,366,368,370,372,374,376,378,380,382
  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
                                ,49,51,53,55,57,59,61,63,193,195,197,199,201,203,205,207,209,211,2
                                13,215,217,219,221,223,225,227,229,231,233,235,237,239,241,243,245
                                          ,247,249,251,253,255
  NUMA node4 CPU(s):            65,67,69,71,73,75,77,79,81,83,85,87,89,91,93,95,97,99,101,103,105,
                                107,109,111,113,115,117,119,121,123,125,127,257,259,261,263,265,26
                                7,269,271,273,275,277,279,281,283,285,287,289,291,293,295,297,299,
                                          301,303,305,307,309,311,313,315,317,319
  NUMA node5 CPU(s):            129,131,133,135,137,139,141,143,145,147,149,151,153,155,157,159,16
                                1,163,165,167,169,171,173,175,177,179,181,183,185,187,189,191,321,
                                323,325,327,329,331,333,335,337,339,341,343,345,347,349,351,353,35
                                    5,357,359,361,363,365,367,369,371,373,375,377,379,381,383
   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       9M   12 Data            1     64        1             64
       L1i       64K      12M   16 Instruction     1     64        1             64
       L2         2M     384M   16 Unified         2   2048        1             64
       L3       480M     960M   16 Unified         3 491520        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:
   0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,192,194,196,198,
   200,202,204,206,208,210,212,214,216,218,220,222,224,226,228,230,232,234,236,238,240,242,244,246,248,250,252
```

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Platform Notes (Continued)

```
 ,254
 node 0 size: 128568 MB
 node 0 free: 115385 MB
 node 1 cpus:
64,66,68,70,72,74,76,78,80,82,84,86,88,90,92,94,96,98,100,102,104,106,108,110,112,114,116,118,120,122,124,1
26,256,258,260,262,264,266,268,270,272,274,276,278,280,282,284,286,288,290,292,294,296,298,300,302,304,306,
 308,310,312,314,316,318
 node 1 size: 129000 MB
 node 1 free: 128553 MB
 node 2 cpus:
128,130,132,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174,176,178,180
,182,184,186,188,190,320,322,324,326,328,330,332,334,336,338,340,342,344,346,348,350,352,354,356,358,360,36
 2,364,366,368,370,372,374,376,378,380,382
 node 2 size: 128959 MB
 node 2 free: 128516 MB
 node 3 cpus:
1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51,53,55,57,59,61,63,193,195,197,199,
201,203,205,207,209,211,213,215,217,219,221,223,225,227,229,231,233,235,237,239,241,243,245,247,249,251,253
 ,255
 node 3 size: 129000 MB
 node 3 free: 128586 MB
 node 4 cpus:
65,67,69,71,73,75,77,79,81,83,85,87,89,91,93,95,97,99,101,103,105,107,109,111,113,115,117,119,121,123,125,1
27,257,259,261,263,265,267,269,271,273,275,277,279,281,283,285,287,289,291,293,295,297,299,301,303,305,307,
 309,311,313,315,317,319
 node 4 size: 129000 MB
 node 4 free: 128564 MB
 node 5 cpus:
129,131,133,135,137,139,141,143,145,147,149,151,153,155,157,159,161,163,165,167,169,171,173,175,177,179,181
,183,185,187,189,191,321,323,325,327,329,331,333,335,337,339,341,343,345,347,349,351,353,355,357,359,361,36
 3,365,367,369,371,373,375,377,379,381,383
 node 5 size: 128922 MB
 node 5 free: 128501 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:       792014284 kB

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

(Continued on next page)

Platform Notes (Continued)

```
------------------------------------------------------------
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
                   bluetooth chronyd dbus-broker firewalld gdm 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         accounts-daemon blk-availability bluetooth-mesh boot-sysctl ca-certificates
                   ca-certificates-setup chrony-wait console-getty cups debug-shell dnsmasq
                   gnome-remote-desktop gnome-remote-desktop-configuration 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 pkcs11_eventmgr rpmconfigcheck rsyncd rtkit-daemon serial-getty@
                   setup-systemd-proxy-env smartd_generate_opts snmpd snmptrapd speech-dispatcherd
                   systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysext
                   systemd-time-wait-sync systemd-timesyncd systemd-udev-load-credentials udisks2 upower
                   wpa_supplicant@
  indirect         pcscd systemd-userdbd

------------------------------------------------------------
12. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.12.0-160000.5-default
  root=UUID=0b344ecf-2e5a-4bf3-b6c0-aecf8a6f67c0
  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

------------------------------------------------------------
14. sysctl
  kernel.numa_balancing               1
  kernel.randomize_va_space           2
```

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Platform Notes (Continued)

```
  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+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  200G   13G  188G   7% /mnt/ramdisk

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

(Continued on next page)

Platform Notes (Continued)

```
 19. /sys/devices/virtual/dmi/id
     Vendor:         Dell Inc.
     Product:        PowerEdge R770AP
     Product Family: PowerEdge
     Serial:         R7703AP

 ------------------------------------------------------------
 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:
     2x 00AD063200AD HMCG88AHBRA286N 32 GB 2 rank 6400
     2x 00AD063200AD HMCG88AHBRA477N 32 GB 2 rank 6400
     15x 00CE063200CE M321R4GA3EB2-CCPPF 32 GB 2 rank 6400
     2x 00CE063200CE M321R4GA3PB1-CCPQC 32 GB 2 rank 6400
     3x 00CE063200CE M321R4GA3PB2-CCPKC 32 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       | 782.lbm_r(base, peak)
------------------------------------------------------------------------------
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++     | 731.astcenc_r(base, peak) 736.ocio_r(base, peak)
        | 748.flightdm_r(base, peak) 766.femflow_r(base, peak)
        | 767.nest_r(base, peak) 772.marian_r(base, peak)
------------------------------------------------------------------------------
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.
```

(Continued on next page)

Compiler Version Notes (Continued)

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

==============================================================================
C++, C  | 709.cactus_r(base, peak) 737.gmsh_r(base, peak)
------------------------------------------------------------------------------
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.
------------------------------------------------------------------------------

==============================================================================
Fortran | 722.palm_r(base, peak) 749.fotonik3d_r(base, peak) 765.roms_r(base,
        | peak)
------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version
  2025.3.0 Build 20251010
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

Benchmarks using both C and C++:
icpx icx

Base Portability Flags

709.cactus_r: -DSPEC_LP64
722.palm_r: -DSPEC_LP64
731.astcenc_r: -DSPEC_LP64
736.ocio_r: -DSPEC_LP64
737.gmsh_r: -DSPEC_LP64 -fno-associative-math
748.flightdm_r: -DSPEC_LP64
749.fotonik3d_r: -DSPEC_LP64
765.roms_r: -DSPEC_LP64

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Base Portability Flags (Continued)

766.femflow_r: -DSPEC_LP64
767.nest_r: -DSPEC_LP64
772.marian_r: -DSPEC_LP64
782.lbm_r: -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 -L/usr/local/jemalloc-5.3.0/lib
-ljemalloc

C++ benchmarks:
-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

Fortran benchmarks:
-m64 -stand f18 -Wl,-z,muldefs -xgraniterapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -nostandard-realloc-lhs
-align array32byte -auto -L/usr/local/jemalloc-5.3.0/lib -ljemalloc

Benchmarks using both C and C++:
-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

Peak Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

(Continued on next page)

Peak Compiler Invocation (Continued)

Benchmarks using both C and C++:
icpx icx

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

782.lbm_r: basepeak = yes

C++ benchmarks:

731.astcenc_r: -m64 -std=c++17 -Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xHost(pass 1)
-ffp-model=fast -xgraniterapids(pass 2) -flto
-mprefer-vector-width=512 -qopt-mem-layout-trans=4 -O3
-mfpmath=sse -funroll-loops
-L/usr/local/jemalloc-5.3.0/lib -ljemalloc

736.ocio_r: basepeak = yes

748.flightdm_r: Same as 731.astcenc_r

766.femflow_r: basepeak = yes

767.nest_r: Same as 731.astcenc_r

772.marian_r: basepeak = yes

Fortran benchmarks:

722.palm_r: basepeak = yes

749.fotonik3d_r: basepeak = yes

765.roms_r: basepeak = yes

Benchmarks using both C and C++:

(Continued on next page)

Peak Optimization Flags (Continued)

709.cactus_r: `basepeak = yes`

737.gmsh_r: `-m64 -std=c++17 -std=c18 -Wl,-z,muldefs`
`-fprofile-generate`(pass 1)
`-fprofile-use=default.profdata`(pass 2) `-xHost`(pass 1)
`-ffp-model=fast -xgraniterapids`(pass 2) `-flto`
`-mprefer-vector-width=512 -qopt-mem-layout-trans=4 -O3`
`-mfpmath=sse -funroll-loops`
`-L/usr/local/jemalloc-5.3.0/lib -ljemalloc`

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-v1.19a.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-v1.19a.xml

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