SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

Dell Inc.

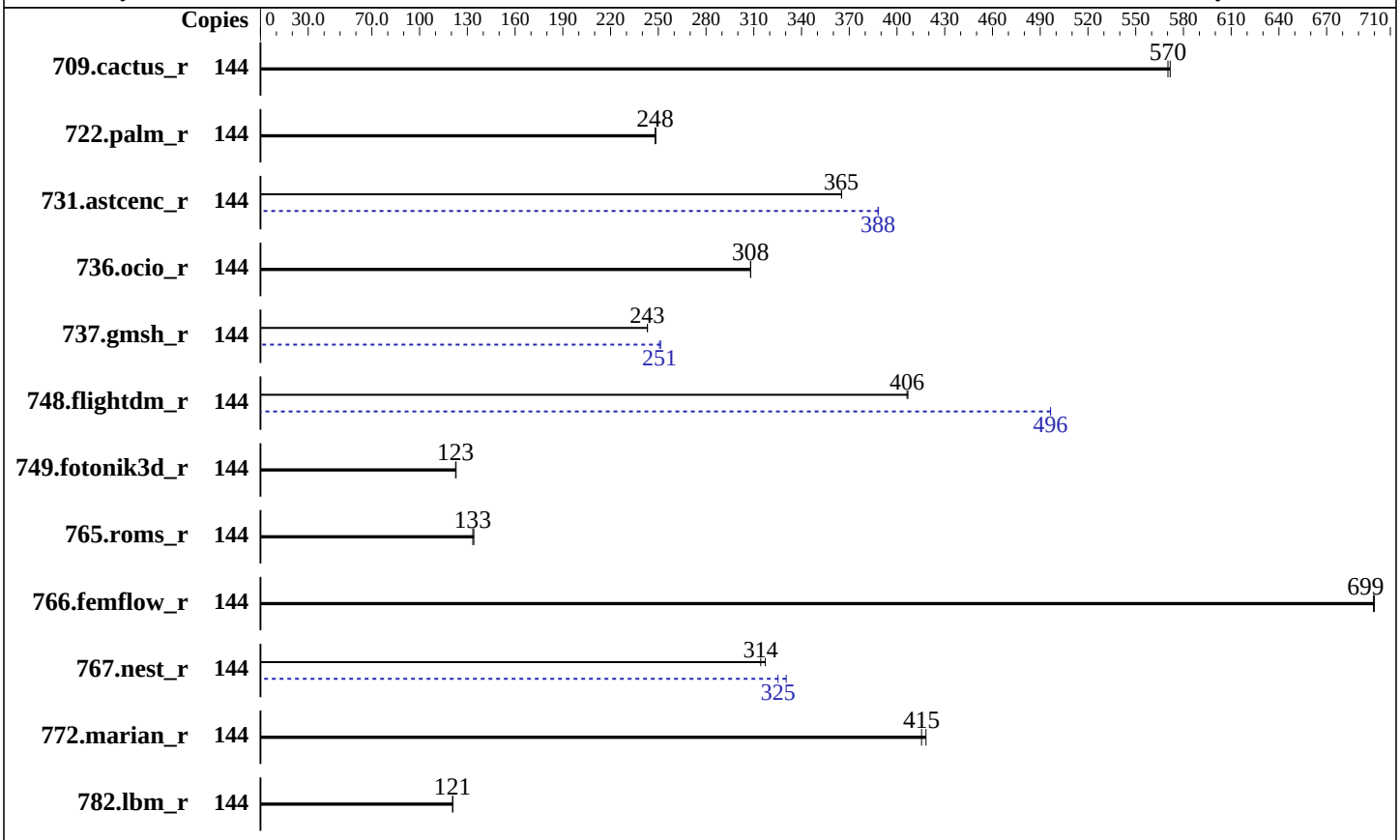
PowerEdge XR8720t (Intel Xeon 6776P-B)

SPECrate®2026_fp_base = 285

SPECrate®2026_fp_peak = 293

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

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



Hardware

CPU Name:	Intel Xeon 6776P-B
Max MHz:	3500
Nominal:	2300
Enabled:	72 cores, 1 chip, 2 threads/core
Orderable:	1 chip
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 (8 x 64 GB 2Rx4 PC5-6400B-R)
Storage:	110 GB on tmpfs
Cooling:	Air
Other:	None

Software

OS:	Red Hat Enterprise Linux 10.0 (Coughlan) 6.12.0-55.9.1.el10_0.x86_64
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 1.1.3 released Feb-2026
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.

SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

Dell Inc.

PowerEdge XR8720t (Intel Xeon 6776P-B)

SPECrate®2026_fp_base = 285

SPECrate®2026_fp_peak = 293

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

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

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
709.cactus_r	144	216	572	**217**	**570**			144	216	572	**217**	**570**		
722.palm_r	144	765	248	**766**	**248**			144	765	248	**766**	**248**		
731.astcenc_r	144	331	365	**331**	**365**			144	**312**	**388**	311	388		
736.ocio_r	144	409	308	**409**	**308**			144	409	308	**409**	**308**		
737.gmsh_r	144	**272**	**243**	272	243			144	263	251	**264**	**251**		
748.flightdm_r	144	253	407	**254**	**406**			144	**208**	**496**	208	496		
749.fotonik3d_r	144	**1358**	**123**	1354	123			144	**1358**	**123**	1354	123		
765.roms_r	144	**1700**	**133**	1691	134			144	**1700**	**133**	1691	134		
766.femflow_r	144	302	700	**302**	**699**			144	302	700	**302**	**699**		
767.nest_r	144	360	317	**363**	**314**			144	346	330	**351**	**325**		
772.marian_r	144	**547**	**415**	544	418			144	**547**	**415**	544	418		
782.lbm_r	144	**683**	**121**	683	121			144	**683**	**121**	683	121		

SPECrate®2026_fp_base = 285

SPECrate®2026_fp_peak = 293

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/cpu2026-0.902.0-ic2025p3/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 110 GB ramdisk created with the cmd: "mount -t tmpfs -o size=110G tmpfs /mnt/ramdisk"
```

Platform Notes

```
BIOS Settings:
       Sub NUMA Cluster : Enabled
           AMP Prefetch : Enabled
         Optimizer Mode : Enabled

         System Profile : Custom
 Latency Optimized Mode : Enabled
   Memory Paging Policy : Closed Paging

Sysinfo program /mnt/ramdisk/cpu2026-0.902.0-ic2025p3/bin/sysinfo
Rev: 069f95da7e7f5d81b2ce48a82150e54f
running on P404206-XR8720t Fri Feb  6 04:12:50 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. who -r
11. Systemd service manager version: systemd 257 (257-9.el10_0.1-g8cd5633)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. tuned-adm active
16. sysctl
17. /sys/kernel/mm/transparent_hugepage
18. /sys/kernel/mm/transparent_hugepage/khugepaged
```

(Continued on next page)

Platform Notes (Continued)

```
19. OS release
20. Disk information
21. /sys/devices/virtual/dmi/id
22. dmidecode
23. BIOS
------------------------------------------------------------

------------------------------------------------------------
1. uname -srvm
  Linux 6.12.0-55.9.1.el10_0.x86_64 #1 SMP PREEMPT_DYNAMIC Tue Mar 25 09:14:09 EDT 2025 x86_64

------------------------------------------------------------
2. w
   04:12:50 up  5:17,  2 users,  load average: 72.12, 124.75, 135.40
  USER     TTY        LOGIN@   IDLE   JCPU   PCPU WHAT
 root     tty1     22:56    5:01m  3.22s  0.02s /bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh
  rate --define DL-VERS=7.0_T03 --output_format html,pdf,txt
  root               22:56    5:00m  0.00s  0.27s /usr/lib/systemd/systemd --user

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

------------------------------------------------------------
4. ulimit -a
  real-time non-blocking time  (microseconds, -R) unlimited
  core file size              (blocks, -c) 0
  data seg size               (kbytes, -d) unlimited
  scheduling priority                 (-e) 0
  file size                   (blocks, -f) unlimited
  pending signals                     (-i) 2059607
  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) 2059607
  virtual memory              (kbytes, -v) unlimited
  file locks                          (-x) unlimited

------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize=47 rhgb
 login -- root
```

(Continued on next page)

Platform Notes (Continued)

```
 -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=7.0_T03 --output_format
   html,pdf,txt
 /bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=7.0_T03 --output_format
   html,pdf,txt
 runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 144 -c
   ic2025.3-graniterapids-cpu2026-0.902-rate-20260121.cfg --define smt-on --define cores=72 --define
   physicalfirst --define invoke_with_interleave --define drop_caches --tune base,peak -o all --iterations 2
   --define DL-VERS=7.0_T03 --output_format html,pdf,txt fprate
 runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 144 --configfile
   ic2025.3-graniterapids-cpu2026-0.902-rate-20260121.cfg --define smt-on --define cores=72 --define
   physicalfirst --define invoke_with_interleave --define drop_caches --tune base,peak --output_format all
   --iterations 2 --define DL-VERS=7.0_T03 --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/cpu2026-0.902.0-ic2025p3

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : INTEL(R) XEON(R) 6776P-B
    vendor_id       : GenuineIntel
    cpu family      : 6
    model           : 174
    stepping        : 1
    microcode       : 0x1000303
    bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
    cpu cores       : 72
    siblings        : 144
    1 physical ids (chips)
    144 processors (hardware threads)
    physical id 0: core ids 0-35,64-99
    physical id 0: apicids 0-71,128-199
 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 2.40.2:
  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):                                144
On-line CPU(s) list:                   0-143
Vendor ID:                             GenuineIntel
BIOS Vendor ID:                        Intel
Model name:                            INTEL(R) XEON(R) 6776P-B
BIOS Model name:                       INTEL(R) XEON(R) 6776P-B  CPU @ 2.3GHz
BIOS CPU family:                       179
CPU family:                            6
Model:                                 174
Thread(s) per core:                    2
Core(s) per socket:                    72
Socket(s):                             1
Stepping:                              1
BogoMIPS:                              4600.00
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 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:                             3.4 MiB (72 instances)
L1i cache:                             4.5 MiB (72 instances)
L2 cache:                              144 MiB (72 instances)
L3 cache:                              288 MiB (1 instance)
NUMA node(s):                          2
NUMA node0 CPU(s):                     0-35,72-107
NUMA node1 CPU(s):                     36-71,108-143
Vulnerability Gather data sampling:    Not affected
Vulnerability Itlb multihit:           Not affected
Vulnerability L1tf:                    Not affected
Vulnerability Mds:                     Not affected
Vulnerability Meltdown:                Not affected
Vulnerability Mmio stale data:         Not affected
```

(Continued on next page)

Platform Notes (Continued)

```
   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;
                                         PBRSB-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     3.4M   12 Data            1     64        1             64
      L1i       64K     4.5M   16 Instruction     1     64        1             64
      L2         2M     144M   16 Unified         2   2048        1             64
      L3       288M     288M   16 Unified         3 294912        1             64

 ------------------------------------------------------------
 8. numactl --hardware
 NOTE: a numactl 'node' might or might not correspond to a physical chip.
   available: 2 nodes (0-1)
   node 0 cpus: 0-35,72-107
   node 0 size: 257111 MB
   node 0 free: 227478 MB
   node 1 cpus: 36-71,108-143
   node 1 size: 258013 MB
   node 1 free: 255569 MB
   node distances:
   node     0    1
      0:   10   12
      1:   12   10

 ------------------------------------------------------------
 9. /proc/meminfo
    MemTotal:       527488488 kB

 ------------------------------------------------------------
 10. who -r
   run-level 3 Feb 5 22:55

 ------------------------------------------------------------
 11. Systemd service manager version: systemd 257 (257-9.el10_0.1-g8cd5633)
   Default Target  Status
   multi-user      running

 ------------------------------------------------------------
 12. Services, from systemctl list-unit-files
```

(Continued on next page)

Platform Notes (Continued)

```
   STATE             UNIT FILES
   enabled           ModemManager NetworkManager NetworkManager-dispatcher NetworkManager-wait-online
                     accounts-daemon atd audit-rules auditd avahi-daemon bluetooth chronyd crond cups
                     dbus-broker fips-crypto-policy-overlay firewalld gdm getty@ insights-client-boot
                     irqbalance iscsi-onboot iscsi-starter kdump libstoragemgmt lvm2-monitor mcelog mdmonitor
                     multipathd nvmefc-boot-connections qemu-guest-agent rhsmcertd rsyslog rtkit-daemon
                     selinux-autorelabel-mark smartd sshd sssd switcheroo-control systemd-confext
                     systemd-network-generator systemd-pstore systemd-sysext tuned tuned-ppd udisks2 upower
                     vgauthd vmtoolsd
   enabled-runtime   systemd-remount-fs
   disabled          arp-ethers blk-availability brltty canberra-system-bootup canberra-system-shutdown
                     canberra-system-shutdown-reboot chrony-wait chronyd-restricted console-getty cups-browsed
                     dbus-daemon debug-shell dnf-system-upgrade dnsmasq gnome-remote-desktop
                     gnome-remote-desktop-configuration hypervfcopyd iscsi-init iscsid iscsiuio kpatch kvm_stat
                     ledmon low-memory-monitor lvm-devices-import man-db-restart-cache-update microcode
                     netavark-dhcp-proxy netavark-firewalld-reload nftables nis-domainname nvmf-autoconnect
                     podman podman-auto-update podman-clean-transient podman-kube@ podman-restart psacct
                     ras-mc-ctl rasdaemon rhsm rhsm-facts rpmdb-migrate rpmdb-rebuild
                     selinux-check-proper-disable serial-getty@ speech-dispatcherd ssh-host-keys-migration
                     sshd-keygen@ systemd-boot-check-no-failures systemd-boot-update
                     systemd-pcrlock-file-system systemd-pcrlock-firmware-code systemd-pcrlock-firmware-config
                     systemd-pcrlock-machine-id systemd-pcrlock-make-policy
                     systemd-pcrlock-secureboot-authority systemd-pcrlock-secureboot-policy
                     systemd-udev-load-credentials wpa_supplicant wsdd yggdrasil yggdrasil@
   indirect          iscsi pcscd spice-vdagentd sshd@ sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh
                     sssd-sudo systemd-sysupdate systemd-sysupdate-reboot systemd-userdbd

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=(hd0,gpt2)/vmlinuz-6.12.0-55.9.1.el10_0.x86_64
  root=/dev/mapper/rhel-root
  ro
  crashkernel=2G-64G:256M,64G-:512M
  resume=UUID=94aa4dd4-b04d-42c5-9ac2-da9c96f84f4e
  rd.lvm.lv=rhel/root
  rd.lvm.lv=rhel/swap
  rhgb
  quiet

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 12:
    Unable to determine current policy
    boost state support:
      Supported: yes
      Active: yes
```

(Continued on next page)

Platform Notes (Continued)

```
------------------------------------------------------------
15. tuned-adm active
  No current active profile.

------------------------------------------------------------
16. 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

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

------------------------------------------------------------
18. /sys/kernel/mm/transparent_hugepage/khugepaged
  alloc_sleep_millisecs   60000
  defrag                      1
  max_ptes_none             511
  max_ptes_shared           256
  max_ptes_swap              64
  pages_to_scan            4096
  scan_sleep_millisecs    10000

------------------------------------------------------------
19. OS release
  From /etc/*-release /etc/*-version
  os-release     Red Hat Enterprise Linux 10.0 (Coughlan)
```

(Continued on next page)

Platform Notes (Continued)

```
   redhat-release Red Hat Enterprise Linux release 10.0 (Coughlan)
   system-release Red Hat Enterprise Linux release 10.0 (Coughlan)

 ------------------------------------------------------------
 20. Disk information
 SPEC is set to: /mnt/ramdisk/cpu2026-0.902.0-ic2025p3
   Filesystem     Type   Size  Used Avail Use% Mounted on
   tmpfs          tmpfs  110G   13G   98G  12% /mnt/ramdisk

 ------------------------------------------------------------
 21. /sys/devices/virtual/dmi/id
     Vendor:         Dell Inc.
     Product:        PowerEdge XR8720t
     Product Family: PowerEdge
     Serial:         P404206

 ------------------------------------------------------------
 22. 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:
      8x 00CE063200CE M321R8GA0PB2-CCPKC 64 GB 2 rank 6400


 ------------------------------------------------------------
 23. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       Dell Inc.
    BIOS Version:      1.1.3
    BIOS Date:         02/03/2026
    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)
```

(Continued on next page)

Compiler Version Notes (Continued)

```
        | 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.
------------------------------------------------------------------------------

==============================================================================
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

(Continued on next page)

Base Portability Flags (Continued)

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
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

(Continued on next page)

Peak Compiler Invocation (Continued)

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

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

(Continued on next page)

Peak Optimization Flags (Continued)

749.fotonik3d_r: `basepeak = yes`

765.roms_r: `basepeak = yes`

Benchmarks using both C and C++:

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-v1.19.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`

SPEC CPU and SPECrate 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.

Tested with SPEC CPU®2026 v0.902.0 on 2026-02-06 05:12:49-0500.
Report generated on 2026-05-11 16:38:19 by CPU2026 PS formatter (86729d3b).
Originally published on 2026-05-05.