



SPEC CPU®2017 Integer Rate Result

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Dell Inc.

SPECrate®2017_int_base = 106

PowerEdge R570 (Intel Xeon 6507P)

SPECrate®2017_int_peak = 109

CPU2017 License: 6573

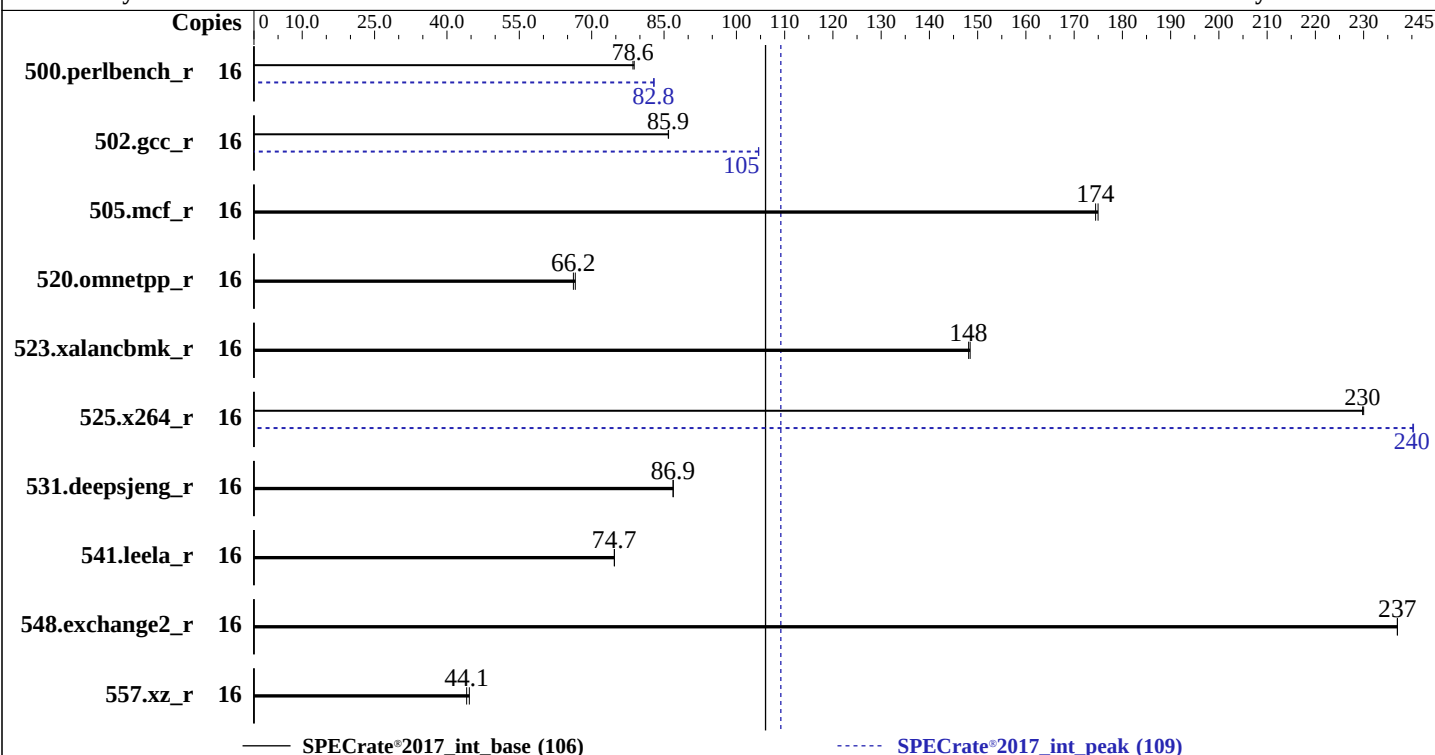
Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: May-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024



Hardware

CPU Name: Intel Xeon 6507P
Max MHz: 4300
Nominal: 3500
Enabled: 8 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: 48 MB I+D on chip per chip
Other: None
Memory: 256 GB (8 x 32 GB 2Rx8 PC5-6400B-R)
Storage: 40 GB on tmpfs
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 15 SP6
6.4.0-150600.21-default
Compiler: C/C++: Version 2024.1 of Intel oneAPI DPC++/C++
Compiler for Linux;
Fortran: Version 2024.1 of Intel Fortran Compiler
for Linux;
Parallel: No
Firmware: Version 1.3.1 released Apr-2025
File System: tmpfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other: jemalloc memory allocator V5.0.1
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	16	324	78.6	323	78.8			16	308	82.8	307	83.0		
502.gcc_r	16	264	85.9	264	85.9			16	217	105	217	105		
505.mcf_r	16	148	175	148	174			16	148	175	148	174		
520.omnetpp_r	16	317	66.2	315	66.6			16	317	66.2	315	66.6		
523.xalancbmk_r	16	114	148	114	148			16	114	148	114	148		
525.x264_r	16	122	230	122	230			16	117	240	117	240		
531.deepsjeng_r	16	211	86.9	211	86.9			16	211	86.9	211	86.9		
541.leela_r	16	355	74.7	355	74.7			16	355	74.7	355	74.7		
548.exchange2_r	16	177	237	177	237			16	177	237	177	237		
557.xz_r	16	392	44.1	387	44.6			16	392	44.1	387	44.6		

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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-ic2024.1/lib/intel64:/mnt/ramdisk/cpu2017-1.1.9-ic2024.1/lib/ia32:/mnt/ramdisk/cpu2017-1.1.9-ic2024.1/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>
jemalloc, a general purpose malloc implementation
built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5
sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>

NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)

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General Notes (Continued)

is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1)

is mitigated in the system as tested and documented.

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2)

is mitigated in the system as tested and documented.

Benchmark run from a 40 GB ramdisk created with the cmd: "mount -t tmpfs -o size=40G tmpfs /mnt/ramdisk"

Platform Notes

BIOS Settings:

Virtual NUMA Nodes : 8
Sub NUMA Cluster : Enabled
Optimizer Mode : Enabled

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

Sysinfo program /mnt/ramdisk/cpu2017-1.1.9-ic2024.1/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on 1234567-R570 Tue May 20 15:13:21 2025

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

Table of contents

1. uname -a
2. w
3. Username
4. ulimit -a
5. sysinfo process ancestry
6. /proc/cpuinfo
7. lscpu
8. numactl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. sysctl
16. /sys/kernel/mm/transparent_hugepage
17. /sys/kernel/mm/transparent_hugepage/khugepaged
18. OS release
19. Disk information
20. /sys/devices/virtual/dmi/id
21. dmidecode

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Platform Notes (Continued)

22. BIOS

```
1. uname -a
Linux 1234567-R570 6.4.0-150600.21-default #1 SMP PREEMPT_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09)
x86_64 x86_64 x86_64 GNU/Linux
```

```
2. w
15:13:21 up 5 min, 1 user, load average: 0.09, 0.10, 0.06
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
root      tty1      -             15:08    40.00s 0.98s  0.00s /bin/bash
/home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=6.2a --output_format html,pdf,txt
```

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

```
4. ulimit -a
core file size          (blocks, -c) unlimited
data seg size           (kbytes, -d) unlimited
scheduling priority     (-e) 0
file size               (blocks, -f) unlimited
pending signals         (-i) 1030318
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) 1030318
virtual memory          (kbytes, -v) unlimited
file locks              (-x) unlimited
```

```
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize=42
login -- root
-bash
/bin/bash /home/DellFiles/bin/DELL_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=6.2a --output_format
html,pdf,txt
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=6.2a --output_format
html,pdf,txt
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=16 -c
ic2024.1-lin-sapphirerapids-rate-20240308.cfg --define smt-on --define cores=8 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base,peak -o all --iterations 2 --define
DL-VERS=6.2a --output_format html,pdf,txt intrate
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=16 --configfile
ic2024.1-lin-sapphirerapids-rate-20240308.cfg --define smt-on --define cores=8 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base,peak --output_format all --iterations 2
--define DL-VERS=6.2a --output_format html,pdf,txt --nopower --runmode rate --tune base:peak --size
refrate intrate --nopreenv --note-preenv --logfile $SPEC/tmp/CPU2017.001/temlogs/preenv.intrate.001.0.log
--lognum 001.0 --from_runcpu 2
```

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Platform Notes (Continued)

```
specperl $SPEC/bin/sysinfo
$SPEC = /mnt/ramdisk/cpu2017-1.1.9-ic2024.1
```

```
-----
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6507P
vendor_id       : GenuineIntel
cpu family      : 6
model           : 173
stepping        : 1
microcode       : 0x10003a5
bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores       : 8
siblings        : 16
1 physical ids (chips)
16 processors (hardware threads)
physical id 0: core ids 0-7
physical id 0: apicids 0-15
```

Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for virtualized systems. Use the above data carefully.

```
-----
7. lscpu
```

From lscpu from util-linux 2.39.3:

```
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Address sizes:         52 bits physical, 57 bits virtual
Byte Order:            Little Endian
CPU(s):                16
On-line CPU(s) list:   0-15
Vendor ID:             GenuineIntel
BIOS Vendor ID:        Intel
Model name:            Intel(R) Xeon(R) 6507P
BIOS Model name:       Intel(R) Xeon(R) 6507P  CPU @ 3.5GHz
BIOS CPU family:       179
CPU family:            6
Model:                 173
Thread(s) per core:    2
Core(s) per socket:    8
Socket(s):             1
Stepping:              1
BogoMIPS:              7000.00
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 hle avx2 smep bmi2 erms invpcid
rtm cqm rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt
clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec
xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local
split_lock_detect user_shstk avx_vnni avx512_bf16 wbnoinvd dtherm ida
arat pln pts vnmi avx512vbmi umip pku ospke waitpkg avx512_vbmi2 gfni
vaes vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq la57
rdpid bus_lock_detect cldemote movdiri movdir64b enqcmd fsrm md_clear
```

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Platform Notes (Continued)

```
Virtualization:
L1d cache:
L1i cache:
L2 cache:
L3 cache:
NUMA node(s):
NUMA node0 CPU(s):
NUMA node1 CPU(s):
NUMA node2 CPU(s):
NUMA node3 CPU(s):
NUMA node4 CPU(s):
NUMA node5 CPU(s):
NUMA node6 CPU(s):
NUMA node7 CPU(s):
Vulnerability Gather data sampling:
Vulnerability Itlb multihit:
Vulnerability L1tf:
Vulnerability Mds:
Vulnerability Meltdown:
Vulnerability Mmio stale data:
Vulnerability Reg file data sampling:
Vulnerability Retbleed:
Vulnerability Spec rstack overflow:
Vulnerability Spec store bypass:
Vulnerability Spectre v1:
Vulnerability Spectre v2:
Vulnerability Srbds:
Vulnerability Tsx async abort:

serialize tsxldtrk pconfig arch_lbr ibt amx_bf16 avx512_fp16 amx_tile
amx_int8 flush_l1d arch_capabilities
VT-x
384 KiB (8 instances)
512 KiB (8 instances)
16 MiB (8 instances)
48 MiB (1 instance)
8
0,10
5,13
3,11
2,8
7,15
1,9
6,14
4,12
Not affected
Not affected
Not affected
Not affected
Not affected
Not affected
Not affected
Not affected
Not affected
Not affected
Mitigation; Speculative Store Bypass disabled via prctl
Mitigation; usercopy/swapgs barriers and __user pointer sanitization
Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling;
PBRSE-eIBRS Not affected; BHI BHI_DIS_S
Not affected
Not affected
```

From lscpu --cache:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	384K	12	Data	1	64	1	64
L1i	64K	512K	16	Instruction	1	64	1	64
L2	2M	16M	16	Unified	2	2048	1	64
L3	48M	48M	16	Unified	3	49152	1	64

8. numactl --hardware

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

```
available: 8 nodes (0-7)
node 0 cpus: 0,10
node 0 size: 32254 MB
node 0 free: 31899 MB
node 1 cpus: 5,13
node 1 size: 32255 MB
node 1 free: 31822 MB
node 2 cpus: 3,11
node 2 size: 32216 MB
node 2 free: 32023 MB
node 3 cpus: 2,8
node 3 size: 32255 MB
node 3 free: 32034 MB
node 4 cpus: 7,15
node 4 size: 32255 MB
node 4 free: 32010 MB
node 5 cpus: 1,9
node 5 size: 32170 MB
```

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Platform Notes (Continued)

node 5 free: 31931 MB
node 6 cpus: 6,14
node 6 size: 32222 MB
node 6 free: 21783 MB
node 7 cpus: 4,12
node 7 size: 31978 MB
node 7 free: 31707 MB

node distances:

node	0	1	2	3	4	5	6	7
0:	10	20	20	20	20	20	20	20
1:	20	10	20	20	20	20	20	20
2:	20	20	10	20	20	20	20	20
3:	20	20	20	10	20	20	20	20
4:	20	20	20	20	10	20	20	20
5:	20	20	20	20	20	10	20	20
6:	20	20	20	20	20	20	10	20
7:	20	20	20	20	20	20	20	10

9. /proc/meminfo

MemTotal: 263791484 kB

10. who -r

run-level 3 May 20 15:08

11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)

Default Target	Status
multi-user	running

12. Services, from systemctl list-unit-files

STATE	UNIT FILES
enabled	YaST2-Firstboot YaST2-Second-Stage apparmor appstream-sync-cache auditd bluetooth cron display-manager getty@ irqbalance issue-generator kbdsettings klog lvm2-monitor nscd postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
enabled-runtime	systemd-remount-fs
disabled	accounts-daemon autofs autoyast-initscripts blk-availability bluetooth-mesh boot-sysctl ca-certificates chrony-wait chronyd console-getty cups cups-browsed debug-shell ebttables exchange-bmc-os-info firewalld fsidd gpm grub2-once haveged ipmi ipmievad issue-add-ssh-keys kexec-load lunmask man-db-create multipathd nfs nfs-blkmap nmb ostree-remount rpcbind rpmconfigcheck rsyncd rtkit-daemon serial-getty@ smartd_generate_opts smb snmpd snmptrapd speech-dispatcherd systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd udisks2 update-system-flatpaks upower vncserver@
indirect	systemd-userdbd wickedd

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

BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
root=UUID=a541ab2e-214d-40d0-aaf8-fce5ff1e22a3
splash=silent
resume=/dev/disk/by-uuid/bd16476a-4e2c-4189-af39-d1803d933a4c
mitigations=auto
quiet
security=apparmor

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Platform Notes (Continued)

14. cpupower frequency-info

analyzing CPU 15:

Unable to determine current policy

boost state support:

Supported: yes

Active: yes

15. 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

16. /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

17. /sys/kernel/mm/transparent_hugepage/khugepaged

alloc_sleep_millisecs	60000
defrag	1
max_ptes_none	511
max_ptes_shared	256
max_ptes_swap	64
pages_to_scan	4096
scan_sleep_millisecs	10000

18. OS release

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

19. Disk information

SPEC is set to: /mnt/ramdisk/cpu2017-1.1.9-ic2024.1

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
tmpfs	tmpfs	40G	5.0G	36G	13%	/mnt/ramdisk

20. /sys/devices/virtual/dmi/id

Vendor: Dell Inc.

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Platform Notes (Continued)

Product: PowerEdge R570
Product Family: PowerEdge
Serial: 1234567

21. dmidecode

Additional information from dmidecode 3.4 follows. WARNING: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

Memory:

8x 00CE042300CE M321R4GA3PB2-CCPEC 32 GB 2 rank 6400

22. BIOS

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

BIOS Vendor: Dell Inc.
BIOS Version: 1.3.1
BIOS Date: 04/24/2025
BIOS Revision: 1.3

Compiler Version Notes

C | 502.gcc_r(peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

C | 500.perlbench_r(base, peak) 502.gcc_r(base) 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 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

C | 502.gcc_r(peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

C | 500.perlbench_r(base, peak) 502.gcc_r(base) 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 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

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 2024.1.0 Build 20240308

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Compiler Version Notes (Continued)

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Fortran | 548.exchange2_r(base, peak)

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
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Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

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 -xsapphirerapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

C++ benchmarks:

-w -std=c++14 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math

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SPEC CPU®2017 Integer Rate Result

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Dell Inc.

SPECrate®2017_int_base = 106

PowerEdge R570 (Intel Xeon 6507P)

SPECrate®2017_int_peak = 109

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: May-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

Base Optimization Flags (Continued)

C++ benchmarks (continued):

-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

Fortran benchmarks:

-w -m64 -Wl,-z,muldefs -xsapfirerapids -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

Peak Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -D_FILE_OFFSET_BITS=64
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

Peak Optimization Flags

C benchmarks:

500.perlbench_r: -w -std=c11 -m64 -Wl,-z,muldefs
-fprofile-generate(pass 1)

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Peak Optimization Flags (Continued)

500.perlbench_r (continued):

```
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-fno-strict-overflow
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmallo
```

```
502.gcc_r: -m32 -L/opt/intel/oneapi/compiler/2024.1/lib32 -std=gnu89
-Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc32-5.0.1/lib -ljemallo
```

505.mcf_r: basepeak = yes

```
525.x264_r: -w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fno-alias
-L/opt/intel/oneapi/compiler/2024.1/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

The flags files that were used to format this result can be browsed at

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

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

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

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

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



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