Cisco Systems
Cisco UCS C240 M7 (Intel Xeon Gold 6438Y+, 2.00GHz)

SPECrate®2017_int_base = 552
SPECrate®2017_int_peak = 569

CPU2017 License: 9019
Test Sponsor: Cisco Systems
Tested by: Cisco Systems

Hardware
CPU Name: Intel Xeon Gold 6438Y+
Max MHz: 4000
Nominal: 2000
Enabled: 64 cores, 2 chips, 2 threads/core
Orderable: 1.2 Chips
Cache L1: 32 KB I + 48 KB D on chip per core
L2: 2 MB I+D on chip per core
L3: 60 MB I+D on chip per chip
Other: None
Memory: 1 TB (16 x 64 GB 2Rx4 PC5-4800B-R)
Storage: 1 x 960 GB M.2 SSD SATA
Other: None

Software
OS: SUSE Linux Enterprise Server 15 SP4
5.14.21-150400.22-default
Compiler: C/C++: Version 2023.0 of Intel oneAPI DPC++/C++ Compiler for Linux;
Fortran: Version 2023.0 of Intel Fortran Compiler for Linux;
Parallel: No
Firmware: Version 4.3.1a released Feb-2023
File System: xfs
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
## Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<th>Ratio</th>
<th>Seconds</th>
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<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
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<td>500.perlbench_r</td>
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<td>510</td>
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<td>502.gcc_r</td>
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<td>237</td>
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<td>523.xalancbmk_r</td>
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<td>133</td>
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<td>525.x264_r</td>
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<td>541.leela_r</td>
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<td>569</td>
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<td>578</td>
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<td>128</td>
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<td>367</td>
<td>569</td>
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<td>578</td>
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<td>578</td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>128</td>
<td>297</td>
<td>1130</td>
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<td>299</td>
<td>1120</td>
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<td>557.xz_r</td>
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<td>522</td>
<td>265</td>
<td>530</td>
<td>261</td>
<td>528</td>
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<td>522</td>
<td>265</td>
<td>530</td>
<td>261</td>
<td>528</td>
<td>262</td>
<td>528</td>
</tr>
</tbody>
</table>

**Compiler Notes**

SPEC has ruled that the compiler used for this result was performing a compilation that specifically improves the performance of the 523.xalancbmk_r / 623.xalancbmk_s benchmarks using a priori knowledge of the SPEC code and dataset to perform a transformation that has narrow applicability.

In order to encourage optimizations that have wide applicability (see rule 1.4 https://www.spec.org/cpu2017/Docs/runrules.html#rule_1.4), SPEC will no longer publish results using this optimization.

This result is left in the SPEC results database for historical reference.

**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.

**Operator 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 = */home/cpu2017/lib/intel64:/home/cpu2017/lib/ia32:/home/cpu2017/je5.0.1-32`
- `MALLOC_CONF = "retain:true"`
Cisco Systems
Cisco UCS C240 M7 (Intel Xeon Gold 6438Y+, 2.00GHz)

CPU2017 License: 9019
Test Sponsor: Cisco Systems
Test Date: Mar-2023
CPU2017 License:
Tested by: Cisco Systems
Hardware Availability: Mar-2023
Software Availability: Dec-2022

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>
NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)
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.
jemalloc, a general purpose malloc implementation
built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5

Platform Notes
BIOS Settings:
Sub NUMA Clustering set to Enable SNC4
LLC Dead Line set to Disabled
ADDDC Sparing set to Disabled
Processor C6 Report set to Enabled
UPI Link Enablement 3
UPI Link Power Management Enabled

Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc97bec197
running on srv04 Wed May 31 18:26:32 2023

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 249 (249.11+suse.124.g2bc0b2c447)
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/klugepaged
18. OS release
19. Disk information
20. /sys/devices/virtual/dmi/id
21. dmidecode

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CPU2017 License: 9019
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Platform Notes (Continued)

22. BIOS

1. uname -a
   Linux srv04 5.14.21-150400.22-default #1 SMP PREEMPT_DYNAMIC Wed May 11 06:57:18 UTC 2022 (49db222) x86_64 x86_64 x86_64 GNU/Linux

2. w
   18:26:32 up 6 min, 1 user, load average: 0.08, 0.12, 0.08
   USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
   root tty1 - 18:24 8.00s 1.23s 0.22s -bash

3. Username
   From environment variable $USER: root

4. ulimit -a
   core file size (blocks, -c) unlimited
   data seg size (kbytes, -d) unlimited
   scheduling priority (>=) 0
   file size (blocks, -f) unlimited
   pending signals (=-l) 4126813
   max locked memory (kbytes, -l) 64
   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) 4126813
   virtual memory (kbytes, -v) unlimited
   file locks (=-x) unlimited

5. sysinfo process ancestry
   /usr/lib/systemd/systemd --switched-root --system --deserialize 30
   login -- root
   -bash
   -bash
   runcpu --nobuild --action validate --define default-platform-flags --define numcopies=128 --c
   ic2023.0-lin-sapphirerapids-rate-20221201.cfg --reportable --iterations 3 --define smt-on --define cores=64 --define physicalfirst --define invoke_with_interleave --define drop_caches --tune all -- all
   intrate
   runcpu --nobuild --action validate --define default-platform-flags --define numcopies=128 --configfile
   ic2023.0-lin-sapphirerapids-rate-20221201.cfg --reportable --iterations 3 --define smt-on --define cores=64 --define physicalfirst --define invoke_with_interleave --define drop_caches --tune all
   --output_format all --nopower --runmode rate --tune base:peak --size refrain intrate --nopreenv
   --note-preenv --logfile $SPEC/tmp/CPUP2017.154/templogs/preenv.intrate.154.0.log --lognum 154.0
   --from_runcpu 2
   specperl $SPEC/bin/sysinfo
   $SPEC = /home/cpu2017

6. /proc/cpuinfo
   model name : Intel(R) Xeon(R) Gold 6438Y+
   vendor_id : GenuineIntel

(Continued on next page)
Cisco Systems
Cisco UCS C240 M7 (Intel Xeon Gold 6438Y+, 2.00GHz)

<table>
<thead>
<tr>
<th>CPU2017 License:</th>
<th>9019</th>
<th>Test Date:</th>
<th>Mar-2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor:</td>
<td>Cisco Systems</td>
<td>Hardware Availability:</td>
<td>Mar-2023</td>
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<tr>
<td>Tested by:</td>
<td>Cisco Systems</td>
<td>Software Availability:</td>
<td>Dec-2022</td>
</tr>
</tbody>
</table>

**SPEC CPU®2017 Integer Rate Result**

**SPECrate®2017_int_base = 552**

**SPECrate®2017_int_peak = 569**

**Platform Notes (Continued)**

cpu family : 6
model : 143
stepping : 8
microcode : 0x2b000161
bugs : spectre_v1 spectre_v2 spec_store_bypass swapgs
cpu cores : 32
siblings : 64
2 physical ids (chips)
128 processors (hardware threads)
physical id 0: core ids 0-31
physical id 1: core ids 0-31
physical id 0: apicids 0-63
physical id 1: apicids 128-191
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 2.37.2:

<table>
<thead>
<tr>
<th>Architecture:</th>
<th>x86_64</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU op-mode(s):</td>
<td>32-bit, 64-bit</td>
</tr>
<tr>
<td>Address sizes:</td>
<td>46 bits physical, 57 bits virtual</td>
</tr>
<tr>
<td>Byte Order:</td>
<td>Little Endian</td>
</tr>
<tr>
<td>CPU(s):</td>
<td>128</td>
</tr>
<tr>
<td>On-line CPU(s) list:</td>
<td>0-127</td>
</tr>
<tr>
<td>Vendor ID:</td>
<td>GenuineIntel</td>
</tr>
<tr>
<td>Model name:</td>
<td>Intel(R) Xeon(R) Gold 6438Y+</td>
</tr>
<tr>
<td>CPU family:</td>
<td>6</td>
</tr>
<tr>
<td>Model:</td>
<td>143</td>
</tr>
<tr>
<td>Thread(s) per core:</td>
<td>2</td>
</tr>
<tr>
<td>Core(s) per socket:</td>
<td>32</td>
</tr>
<tr>
<td>Socket(s):</td>
<td>2</td>
</tr>
<tr>
<td>Stepping:</td>
<td>8</td>
</tr>
<tr>
<td>CPU max MHz:</td>
<td>4000.000</td>
</tr>
<tr>
<td>CPU min Mhz:</td>
<td>800.000</td>
</tr>
<tr>
<td>BogoMIPS:</td>
<td>4000.00</td>
</tr>
</tbody>
</table>

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 rdtdsc
lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology
nonstop_tsc cpuid apicid perfctrperf tsc_known_freq pni pclmulqdq dtes64
monitor ds cpl 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
mah 3dnowprefetch cpuid_fault ebf cat_l3 cat_l2 cdplЈ_1 invpcid_single
intel_ppln cdplЈ_2 sbd bmas lbp bbsl sbsl Enhanced fs64-base
tsa_adjust bmi hle avx2 smep bmi2 erms invpd rtm pqg rdt_a avx512f
avx512dq rdseed adx smap avx512fma clflushopt clwb intel_pt avx512cd
sha ni avx512bw avx512vl xsaveopt xsavec xsavec xsaveopt xsavec xsavec
qm l1c
qm_occupa l1c qmm_mbb_total qmm_mbb_local split_lock Detect avx_vnni
avx512_bf16 wbinvd dtherm ida arat pln pts hwp hwp_act_window hwp_esshunt
hwp_pkg_req avx512vbmi umip pku ospe waitpkg avx512_vmbi2 gfn vaes
vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vppcnrdq la57 rdpid
bus_lock_detect cldemote movdiri movdir64b enqcmd farm md_clear serialize
tsxidtrk pconf iarch_lbr avx512_fp16 amx_tile flush_l1d arch_capabilities

L1d cache: 3 MiB (64 instances)
L1i cache: 2 MiB (64 instances)
L2 cache: 128 MiB (64 instances)
L3 cache: 120 MiB (2 instances)
NUMA node(s): 4
NUMA node0 CPU(s): 0-15, 64-79

(Continued on next page)
Platform Notes (Continued)

NUMA node1 CPU(s): 16-31,80-95
NUMA node2 CPU(s): 32-47,96-111
NUMA node3 CPU(s): 48-63,112-127
Vulnerability Ic1b multihit: Not affected
Vulnerability L1tf: Not affected
Vulnerability Mds: Not affected
Vulnerability Meltdown: Not affected
Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced IBRS, IBPB conditional, RSB filling
Vulnerability Srbd: Not affected
Vulnerability Tax async abort: Not affected

From lscpu --cache:

NAME ONE-SIZE ALL-SIZE WAYS TYPE LEVEL SETS PHY-LINE COHERENCY-SIZE
L1d 48K 3M 12 Data 1 64 1 64
L1i 32K 2M 8 Instruction 1 64 1 64
L2 2M 128M 16 Unified 2 2048 1 64
L3 60M 120M 15 Unified 3 65536 1 64

--------

8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
available: 4 nodes (0-3)
node 0 cpus: 0-15,64-79
node 0 size: 257689 MB
node 0 free: 256303 MB
node 1 cpus: 16-31,80-95
node 1 size: 258039 MB
node 1 free: 257201 MB
node 2 cpus: 32-47,96-111
node 2 size: 258039 MB
node 2 free: 257155 MB
node 3 cpus: 48-63,112-127
node 3 size: 257958 MB
node 3 free: 257159 MB
node distances:
node   0   1   2   3
0:  10  12  21  21
1:  12  10  21  21
2:  21  21  10  12
3:  21  21  12  10

--------

9. /proc/meminfo
MemTotal: 1056488840 kB

--------

10. who -r
run-level 3 May 31 18:20

--------

11. Systemd service manager version: systemd 249 (249.11+suse.124.g2bc0b2c447)
Default Target Status
multi-user running

--------

12. Services, from systemctl list-unit-files
STATE UNIT FILES
enabled apparmor auditd cron getty@ haveged irqbalance issue-generator kbdsettings klog

(Continued on next page)
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Platform Notes (Continued)

lvm2-monitor nsctd postfix purge-kernels rollback rsyslog smartd sshd wicked wickedd-auto4 wicked-dhcp4 wicked-dhcp6 wickedd-nanny
enabled-runtime systemd-remount-fs
indirect

13. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=/boot/vmlinuz-5.14.21-150400.22-default
root=UUID=82136e43-7b14-445e-80c8-a54855d5e2c7
splash=silent
mitigations=auto
quiet
security=apparmor

14. cpupower frequency-info
analyzing CPU 0:
current policy: frequency should be within 800 MHz and 4.00 GHz.
The governor "performance" may decide which speed to use
within this range.
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        30000
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                     1
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+madvise [madvise] never
enabled [always] madvise never
hpage_pmd_size 2097152
shmem_enabled always within_size advise [never] deny force

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SPECrates®
SPECrates®

SPEC CPU®2017 Integer Rate Result
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Platform Notes (Continued)

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 SP4

   ------------------------------------------------------------------------------------------
19. Disk information
   SPEC is set to: /home/cpu2017
   Filesystem     Type      Size  Used  Avail  Use%  Mounted on
   /dev/sdb3      xfs       436G   13G  424G   3%   /

   ------------------------------------------------------------------------------------------
20. /sys/devices/virtual/dmi/id
   Vendor:         Cisco Systems Inc
   Product:        UCSC-C240-M7SX
   Serial:         WZP26360KC7

   ------------------------------------------------------------------------------------------
21. dmidecode
   Additional information from dmidecode 3.2 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:
   16x 0xCE00 M321R8GA0BB0-CQKDG 64 GB 2 rank 4800

   ------------------------------------------------------------------------------------------
22. BIOS
   (This section combines info from /sys/devices and dmidecode.)
   BIOS Vendor:       Cisco Systems, Inc.
   BIOS Version:     C240M7.4.3.1a.0.0201231701
   BIOS Date:         02/01/2023
   BIOS Revision:    5.29
   The system clock was reset to a future date before running the test
   and the exact test date is updated

Compiler Version Notes

============================================================================================================
C       | 502.gcc_r(peak)
============================================================================================================
Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 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)

(Continued on next page)
Cisco Systems
Cisco UCS C240 M7 (Intel Xeon Gold 6438Y+, 2.00GHz)

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SPECrates

SPECrater®2017_int_base = 552
SPECrater®2017_int_peak = 569

CPU2017 License: 9019
Test Sponsor: Cisco Systems
Tested by: Cisco Systems
Test Date: Mar-2023
Hardware Availability: Mar-2023
Software Availability: Dec-2022

Compiler Version Notes (Continued)

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

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Cisco Systems
Cisco UCS C240 M7 (Intel Xeon Gold 6438Y+, 2.00GHz)

<table>
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<tr>
<th>CPU2017 License:</th>
<th>9019</th>
<th>Test Date:</th>
<th>Mar-2023</th>
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**SPEC CPU®2017 Integer Rate Result**

**SPECrate®2017_int_base = 552**

**SPECrate®2017_int_peak = 569**

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### Base Portability Flags (Continued)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>520.omnetpp_r: -DSPEC_LP64</td>
</tr>
<tr>
<td>523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX</td>
</tr>
<tr>
<td>525.x264_r: -DSPEC_LP64</td>
</tr>
<tr>
<td>531.deepsjeng_r: -DSPEC_LP64</td>
</tr>
<tr>
<td>541.leela_r: -DSPEC_LP64</td>
</tr>
<tr>
<td>548.exchange2_r: -DSPEC_LP64</td>
</tr>
<tr>
<td>557.xz_r: -DSPEC_LP64</td>
</tr>
</tbody>
</table>

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### Base Optimization Flags

**C benchmarks:**

```bash
-w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/intel/compiler/2023.0.0/linux/compiler/lib/intel64_lin -lqkmalloc
```

**C++ benchmarks:**

```bash
-w -std=c++14 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/usr/local/intel/compiler/2023.0.0/linux/compiler/lib/intel64_lin -lqkmalloc
```

**Fortran benchmarks:**

```bash
```

---

### Peak Compiler Invocation

**C benchmarks:**

```bash
icx
```

**C++ benchmarks:**

```bash
icpx
```

**Fortran benchmarks:**

```bash
ifx
```
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SPEC CPU®2017 Integer Rate Result
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SPECrate®2017_int_peak = 569

CPU2017 License: 9019
Test Sponsor: Cisco Systems
Tested by: Cisco Systems

Test Date: Mar-2023
Hardware Availability: Mar-2023
Software Availability: Dec-2022

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)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-fno-strict-overflow
-L/usr/local/intel/compiler/2023.0.0/linux/compiler/lib/intel64_lin
-lqkmalloc

502.gcc_r: -m32
-L/usr/local/intel/compiler/2023.0.0/linux/compiler/lib/ia32_lin
-std=gnu89 -Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc32-5.0.1/lib -ljemalloc

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/usr/local/intel/compiler/2023.0.0/linux/compiler/lib/intel64_lin
-lqkmalloc

557.xz_r: basepeak = yes

C++ benchmarks:

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Peak Optimization Flags (Continued)

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-ic2023-official-linux64.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Intel-ic2023-official-linux64.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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