### Hardware
- **CPU Name:** Intel Xeon Platinum 8452Y
- **Max MHz:** 3200
- **Nominal:** 2000
- **Enabled:** 72 cores, 2 chips, 2 threads/core
- **Orderable:** 1, 2 chip(s)
- **Cache L1:** 32 KB I + 48 KB D on chip per core
- **L2:** 2 MB I+D on chip per core
- **L3:** 67.5 MB I+D on chip per core
- **Memory:** 1 TB (16 x 64 GB 2Rx4 PC5-4800B-R)
- **Storage:** 1 x 960 GB SATA SSD
- **Other:** None

### Software
- **OS:** Red Hat Enterprise Linux 9.0 (Plow)
  - Kernel 5.14.0-70.13.1.el9_0.x86_64
- **Compiler:** C/C++: Version 2022.1 of Intel oneAPI DPC++/C++ Compiler for Linux;
  - Fortran: Version 2022.1 of Intel Fortran Compiler for Linux
- **Parallel:** No
- **Firmware:** HPE BIOS Version v1.22 01/18/2023 released Jan-2023
- **File System:** xfs
- **System State:** Run level 3 (multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** 64-bit
- **Other:** jemalloc memory allocator V5.0.1
- **Power Management:** BIOS and OS set to prefer performance at the cost of additional power usage

---

**Hewlett Packard Enterprise**

Test Sponsor: HPE

ProLiant DL360 Gen11

(2.00 GHz, Intel Xeon Platinum 8452Y)

---

**SPEC CPU 2017 Floating Point Rate Result**

**Copyright 2017-2023 Standard Performance Evaluation Corporation**

**Test Sponsor:** HPE

**Hewlett Packard Enterprise**

**ProLiant DL360 Gen11**

(2.00 GHz, Intel Xeon Platinum 8452Y)

---

**SPECrate 2017_fp_base = 693**

**SPECrate 2017_fp_peak = 702**

---

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Hardware Availability:** Jan-2023

**Software Availability:** May-2022

---

### Performance Results

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**Test Date:** Mar-2023

**Test Sponsor:** HPE

**Hardware Availability:** Jan-2023

**Software Availability:** May-2022

---

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---

**Page 1**

Standard Performance Evaluation Corporation (info@spec.org)  https://www.spec.org/
## Results Table

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</tbody>
</table>

**SPECrate®2017_fp_base = 693**

**SPECrate®2017_fp_peak = 702**

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"
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>
```

### Environment Variables Notes

Environment variables set by runcpu before the start of the run:
```
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-64"
MALLOC_CONF = "retain:true"
```
Hewlett Packard Enterprise  
(Test Sponsor: HPE)  
ProLiant DL360 Gen11  
(2.00 GHz, Intel Xeon Platinum 8452Y)  

<table>
<thead>
<tr>
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</tr>
<tr>
<td></td>
<td>Tested by: HPE</td>
<td>Software Availability: May-2022</td>
</tr>
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</table>

### General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM memory using Red Hat Enterprise Linux 8.4  
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.  

### Platform Notes

The system ROM used for this result contains Intel microcode version 0x2b000161 for the Intel Xeon Platinum 8452Y processor.  
BIOS Configuration:  
- Workload Profile set to General Throughput Compute  
- Thermal Configuration set to Maximum Cooling  
- Enhanced Processor Performance Profile set to Aggressive  
- Last Level Cache (LLC) Dead Line Allocation set to Disabled  
- Memory Patrol Scrubbing set to Disabled  
- Workload Profile set to Custom  
- DCU Stream Prefetcher set to Disabled  
- Adjacent Sector Prefetch set to Disabled  
- Minimum Processor Idle Power Package C-State set to Package C6 (non-retention) State

Sysinfo program /home/cpu2017/bin/sysinfo  
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197  
running on localhost.localdomain Sat Jun 25 05:10:11 2022

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

---

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---

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

(Continued on next page)
Platform Notes (Continued)

11. Systemd service manager version: systemd 250 (250-6.el9_0)
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
22. BIOS

1. uname -a
   Linux localhost.localdomain 5.14.0-70.13.1.el9_0.x86_64 #1 SMP PREEMPT Thu Apr 14 12:42:38 EDT 2022 x86_64
   x86_64 x86_64 GNU/Linux

2. w
   05:10:11 up 14 min,  0 users, load average: 0.00, 0.00, 0.00
   USER     TTY        LOGIN@   IDLE   JCPU   PCPU WHAT

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) 4127108
   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) 4127108
   virtual memory (kbytes, -v) unlimited
   file locks (-x) unlimited

(Continued on next page)
**SPEC CPU®2017 Floating Point Rate Result**

**Hewlett Packard Enterprise**
(Test Sponsor: HPE)
ProLiant DL360 Gen11
(2.00 GHz, Intel Xeon Platinum 8452Y)

<table>
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</tr>
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</table>

**SPECrate®2017_fp_base = 693**

**SPECrate®2017_fp_peak = 702**

---

### Platform Notes (Continued)

5. **sysinfo process ancestry**
   
   /usr/lib/systemd/systemd --switched-root --system --deserialize 30
   
   ssqd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
   
   sshd: root [priv]
   
   sshd: root@notty
   
   bash -c cd $SPEC/ && $SPEC/fprate.sh
   
   runcpu --nobuild --action validate --define default-platform-flags --define numcopies=144 -c
   ic2022.1-lin-core-avx512-rate-20220316.cfg --define cores=144 --define physicalfirst --define
   invoke_with_interleave --define drop_caches --tune base,peak -o all fprate
   
   runcpu --nobuild --action validate --define default-platform-flags --define numcopies=144 --configfile
   ic2022.1-lin-core-avx512-rate-20220316.cfg --define cores=144 --define physicalfirst --define
   invoke_with_interleave --define drop_caches --tune base,peak --output_format all --nopower --runmode rate
   --tune base:peak --size refrate fprate --nopreenv --note-preenv --logfile
   $SPEC/tmp/CPU2017.001/templogs/preenv.fprate.001.0.log --lognum 001.0 --from_runcpu 2
   
   specperl $SPEC/bin/sysinfo
   
   $SPEC = /home/cpu2017

6. **/proc/cpuinfo**
   
   - **model name**: Intel(R) Xeon(R) Platinum 8452Y
   - **vendor_id**: GenuineIntel
   - **cpu family**: 6
   - **model**: 143
   - **stepping**: 6
   - **microcode**: 0x2b000161
   - **bugs**: spectre_v1 spectre_v2 spec_store_bypass swapgs
   - **cpu cores**: 36
   - **siblings**: 72
   - **2 physical ids (chips)**
   - **144 processors (hardware threads)**
   - **physical id 0**: core ids 0-35
   - **physical id 1**: core ids 0-35
   - **physical id 0**: apicids 0-71
   - **physical id 1**: apicids 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 2.37.4:
   
   - **Architecture**: x86_64
   - **CPU op-mode(s)**: 32-bit, 64-bit
   - **Address sizes**: 46 bits physical, 57 bits virtual
   - **Byte Order**: Little Endian
### SPEC CPU®2017 Floating Point Rate Result

**Hewlett Packard Enterprise**  
(Test Sponsor: HPE)  
ProLiant DL360 Gen11  
(2.00 GHz, Intel Xeon Platinum 8452Y)

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**Platform Notes (Continued)**

- **Vulnerability Meltdown**: Not affected
- **Vulnerability Spec store bypass**: Mitigation; Speculative Store Bypass disabled via prctl
- **Vulnerability Spectre v1**: Mitigation; usercopy/swaps barriers and __user pointer sanitization
- **Vulnerability Spectre v2**: Mitigation; Enhanced IBRS, IBFB conditional, RSB filling
- **Vulnerability Srbds**: Not affected
- **Vulnerability Tsx async abort**: Not affected

From `lscpu --cache`:

<table>
<thead>
<tr>
<th>NAME</th>
<th>ONE-SIZE</th>
<th>ALL-SIZE</th>
<th>WAYS</th>
<th>TYPE</th>
<th>LEVEL</th>
<th>SETS</th>
<th>PHY-LINE</th>
<th>COHERENCY-SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1d</td>
<td>48K</td>
<td>3.4M</td>
<td>12</td>
<td>Data</td>
<td>1</td>
<td>64</td>
<td>1</td>
<td>64</td>
</tr>
<tr>
<td>L1i</td>
<td>32K</td>
<td>2.3M</td>
<td>8</td>
<td>Instruction</td>
<td>1</td>
<td>64</td>
<td>1</td>
<td>64</td>
</tr>
<tr>
<td>L2</td>
<td>2M</td>
<td>144M</td>
<td>16</td>
<td>Unified</td>
<td>2</td>
<td>2048</td>
<td>1</td>
<td>64</td>
</tr>
<tr>
<td>L3</td>
<td>67.5M</td>
<td>135M</td>
<td>15</td>
<td>Unified</td>
<td>3</td>
<td>73728</td>
<td>1</td>
<td>64</td>
</tr>
</tbody>
</table>

---

8. `numactl --hardware`

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

- available: 8 nodes (0-7)
- node 0 cpus: 0-8,72-80
- node 0 size: 128733 MB
- node 0 free: 127970 MB
- node 1 cpus: 9-17,81-89
- node 1 size: 129020 MB
- node 1 free: 128571 MB
- node 2 cpus: 18-26,90-98
- node 2 size: 129020 MB
- node 2 free: 128571 MB
- node 3 cpus: 27-35,99-107
- node 3 size: 129020 MB
- node 3 free: 128689 MB
- node 4 cpus: 36-44,108-116
- node 4 size: 129020 MB
- node 4 free: 128670 MB
- node 5 cpus: 45-53,117-125
- node 5 size: 128983 MB
- node 5 free: 128577 MB
- node 6 cpus: 54-62,126-134
- node 6 size: 129020 MB
- node 6 free: 128866 MB
- node 7 cpus: 63-71,135-143
- node 7 size: 129000 MB
- node 7 free: 128639 MB
- node distances:

```plaintext
node 0 1 2 3 4 5 6 7
 0: 10 20 30 30 30 30 30
 1: 20 10 30 30 30 30 30
 2: 30 30 10 20 30 30 30
```

(Continued on next page)
SPEC CPU®2017 Floating Point Rate Result

Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL360 Gen11
(2.00 GHz, Intel Xeon Platinum 8452Y)

SPECrate®2017_fp_base = 693
SPECrate®2017_fp_peak = 702

CPU2017 License: 3
Test Sponsor: HPE
Tested by: HPE

Platform Notes (Continued)

3: 30 30 20 10 30 30 30 30
4: 30 30 30 30 10 20 30 30
5: 30 30 30 30 20 10 30 30
6: 30 30 30 30 30 10 20
7: 30 30 30 30 30 20 10

---
9. /proc/meminfo
   MemTotal: 1056580604 kB

---
10. who -r
    run-level 3 Jun 25 04:55

---
11. Systemd service manager version: systemd 250 (250-6.el9_0)
    Default Target Status
    multi-user running

---
12. Services, from systemctl list-unit-files
    STATE     UNIT FILES
    enabled   NetworkManager NetworkManager-dispatcher NetworkManager-wait-online audidt chrony crond
dbus-broker firewalld getty@ irqbalance kvm2-monitor mdmonitor microcode
nis-domainname rhsmcertd rsyslog selinux-autorelabel-mark sshd sssd
systemd-network-generator udisks2
    enabled-runtime systemctl-remount-fs
    disabled  blk-availability chrony-wait console-getty cpupower debug-shell kvm_stat
man-db-restart-cache-update nftables rdisc rshm rhsm-facts rpmbuild-rebuild serial-getty@
sshd-keygen@ systemd-boot-check-no-failures systemd-pstore systemd-sysext
    indirect  sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo

---
13. Linux kernel boot-time arguments, from /proc/cmdline
    BOOT_IMAGE=(hd0,gpt2)/vmlinuz-5.14.0-70.13.1.el9_0.x86_64
    root=/dev/mapper/rhel-root
    ro
    resume=/dev/mapper/rhel-swap
    rd.lvm.lv=rhel/root
    rd.lvm.lv=rhel swap

---
14. cpupower frequency-info
    analyzing CPU 0:
    Unable to determine current policy
    boost state support:
    Supported: yes

(Continued on next page)
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SPECrate®2017_fp_base = 693
SPECrate®2017_fp_peak = 702

Platform Notes (Continued)

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+madvise [madvise] never
    enabled         [always] madvise 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 Red Hat Enterprise Linux 9.0 (Plow)
    redhat-release Red Hat Enterprise Linux release 9.0 (Plow)
    system-release Red Hat Enterprise Linux release 9.0 (Plow)

(Continued on next page)
Platform Notes (Continued)

19. Disk information
SPEC is set to: /home/cpu2017
Filesystem            Type  Size  Used  Avail  Use%  Mounted on
/dev/mapper/rhel-home  xfs   819G  138G  681G  17%  /home

20. /sys/devices/virtual/dmi/id
Vendor:         HPE
Product:        ProLiant DL360 Gen11
Product Family: ProLiant
Serial:         CNX20800PZ

21. dmidecode
Additional information from dmidecode 3.3 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 Samsung M321R8GA0BB0-CQKDG 64 GB 2 rank 4800

22. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor:       HPE
BIOS Version:      1.22
BIOS Date:         01/18/2023
BIOS Revision:     1.22
Firmware Revision: 1.10

Compiler Version Notes
==============================================================================
C      |  519.lbm_r(base, peak) 538.imagick_r(base, peak)  
      |  544.nab_r(base, peak)  
==============================================================================

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
==============================================================================

C++     |  508.namd_r(base, peak) 510.parest_r(base, peak)  
==============================================================================

(Continued on next page)
Compiler Version Notes (Continued)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
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==============================================================================
C++, C          | 511.povray_r(base, peak) 526.blender_r(base, peak)
==============================================================================
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
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Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
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==============================================================================
C++, C, Fortran | 507.cactuBSSN_r(base, peak)
==============================================================================
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
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Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
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==============================================================================
Fortran         | 503.bwaves_r(base, peak) 549.fotonik3d_r(base, peak) 554.roms_r(base, peak)
==============================================================================
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2022.1.0 Build 20220316
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==============================================================================
Fortran, C      | 521.wrf_r(base, peak) 527.cam4_r(base, peak)
==============================================================================
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(Continued on next page)
Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL360 Gen11
(2.00 GHz, Intel Xeon Platinum 8452Y)

SPECrater®2017_fp_base = 693
SPECrater®2017_fp_peak = 702

CPU2017 License: 3
Test Sponsor: HPE
Tested by: HPE

Compiler Version Notes (Continued)
Version 2022.1.0 Build 20220316
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Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

Benchmarks using both Fortran and C:
ifx icx

Benchmarks using both C and C++:
icpx icx

Benchmarks using Fortran, C, and C++:
icpx icx ifx

Base Portability Flags

503.bwaves_r: -DSPEC_LP64
507.cactuBSSN_r: -DSPEC_LP64
508.namd_r: -DSPEC_LP64
510.parest_r: -DSPEC_LP64
511.povray_r: -DSPEC_LP64
519.lbm_r: -DSPEC_LP64
521.wrf_r: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
526.blender_r: -DSPEC_LP64 -DSPEC_LINUX -funsigned-char
527.cam4_r: -DSPEC_LP64 -DSPEC_CASE_FLAG
538.imagick_r: -DSPEC_LP64
544.nab_r: -DSPEC_LP64
549.fotonik3d_r: -DSPEC_LP64
554.roms_r: -DSPEC_LP64
## Base Optimization Flags

C benchmarks:
```
-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib
```

C++ benchmarks:
```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib
```

Fortran benchmarks:
```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib
```

Benchmarks using both Fortran and C:
```
-w -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib
```

Benchmarks using both C and C++:
```
-w -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib
```

Benchmarks using Fortran, C, and C++:
```
-w -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib
```

## Peak Compiler Invocation

C benchmarks:
```
icx
```

C++ benchmarks:
```
icpx
```

Fortran benchmarks:
```
ifx
```

(Continued on next page)
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CPU2017 License: 3
Test Sponsor: HPE
Tested by: HPE

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Peak Compiler Invocation (Continued)

Benchmarks using both Fortran and C:
ifx icx

Benchmarks using both C and C++:
icpx icx

Benchmarks using Fortran, C, and C++:
icpx icx ifx

Peak Portability Flags
Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
519.lbm_r: basepeak = yes
538.imagick_r: basepeak = yes
544.nab_r: -w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -qopt-vm-usage=high -Ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib

C++ benchmarks:
508.namd_r: basepeak = yes
510.parest_r: basepeak = yes

Fortran benchmarks:
503.bwaves_r: basepeak = yes
549.fotonik3d_r: basepeak = yes
554.roms_r: basepeak = yes

Benchmarks using both Fortran and C:

(Continued on next page)
Hewlett Packard Enterprise  
(Test Sponsor: HPE)  
ProLiant DL360 Gen11  
(2.00 GHz, Intel Xeon Platinum 8452Y)  

SPECrate®2017_fp_base = 693  
SPECrate®2017_fp_peak = 702  

CPU2017 License: 3  
Test Sponsor: HPE  
Tested by: HPE  

Test Date: Mar-2023  
Hardware Availability: Jan-2023  
Software Availability: May-2022  

Peak Optimization Flags (Continued)

521.wrf_r: basepeak = yes  
527.cam4_r: basepeak = yes  

Benchmarks using both C and C++:
511.povray_r: basepeak = yes  
526.blender_r: basepeak = yes  

Benchmarks using Fortran, C, and C++:
507.cactuBSSN_r: basepeak = yes  

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-SPR-rev1.1.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-SPR-rev1.1.xml

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