SPEC CPU®2017 Floating Point Speed Result

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Hewlett Packard Enterprise

(Test Sponsor: HPE)

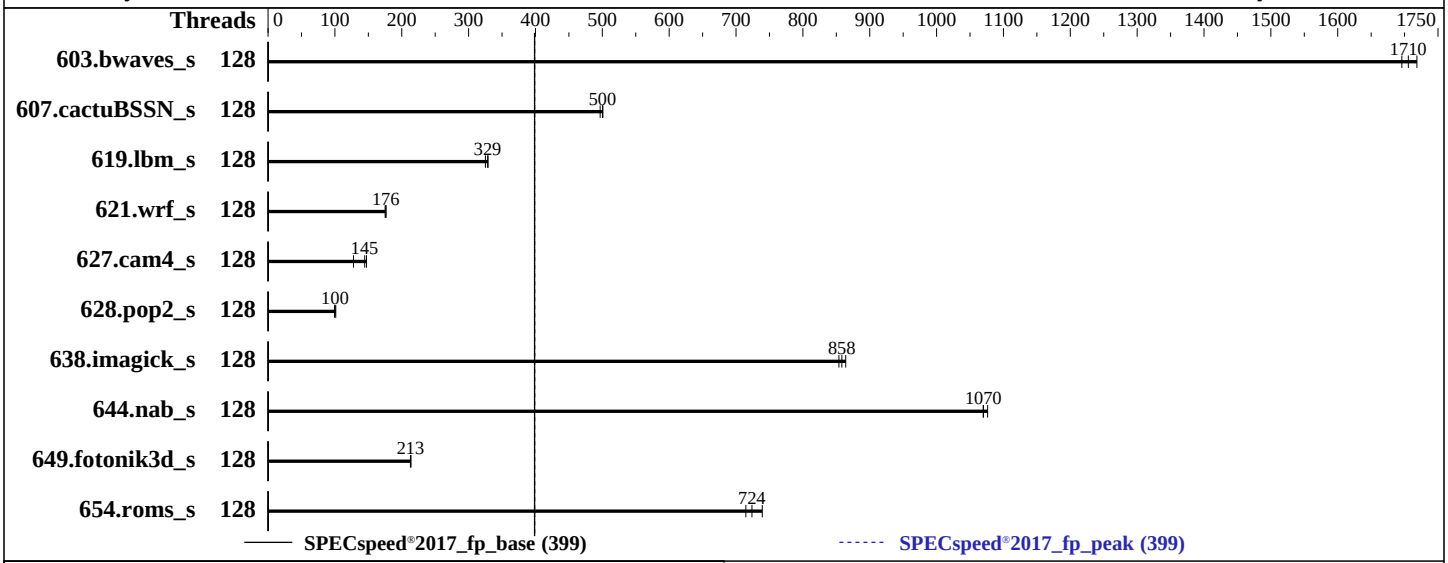
ProLiant Compute DL380a Gen12
(2.90 GHz, Intel Xeon 6762P)

SPECspeed®2017_fp_base = 399

SPECspeed®2017_fp_peak = 399

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

Test Date: Apr-2026
Hardware Availability: May-2026
Software Availability: Dec-2025



Hardware

CPU Name:	Intel Xeon 6762P
Max MHz:	3900
Nominal:	2900
Enabled:	64 cores, 2 chips
Orderable:	1,2 Chip
Cache L1:	64 KB I + 48 KB D on chip per core
L2:	2 MB I+D on chip per core
L3:	320 MB I+D on chip per chip
Other:	None
Memory:	1 TB (16 x 64 GB 2Rx4 PC5-6400B-R)
Storage:	1 x 3.2 TB NVMe SSD
Other:	CPU Cooling: Air

Software

OS:	SUSE Linux Enterprise Server 15 SP7 Kernel 6.4.0-150700.53.6-default
Compiler:	C/C++: Version 2025.2 of Intel oneAPI DPC++/C++ Compiler for Linux; Fortran: Version 2025.2 of Intel Fortran Compiler for Linux;
Parallel:	Yes
Firmware:	HPE BIOS Version v1.64 03/06/2026 released Mar-2026
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 is set to prefer performance at the cost of additional power usage

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
603.bwaves_s	128	34.8	1700	**34.6**	**1710**	34.3	1720	128	34.8	1700	**34.6**	**1710**	34.3	1720
607.cactuBSSN_s	128	**33.3**	**500**	33.3	501	33.6	497	128	**33.3**	**500**	33.3	501	33.6	497
619.lbm_s	128	**15.9**	**329**	15.9	329	16.1	325	128	**15.9**	**329**	15.9	329	16.1	325
621.wrf_s	128	**75.1**	**176**	75.0	176	75.5	175	128	**75.1**	**176**	75.0	176	75.5	175
627.cam4_s	128	**61.3**	**145**	60.2	147	69.4	128	128	**61.3**	**145**	60.2	147	69.4	128
628.pop2_s	128	119	99.4	117	101	**118**	**100**	128	119	99.4	117	101	**118**	**100**
638.imagick_s	128	16.9	854	16.7	864	**16.8**	**858**	128	16.9	854	16.7	864	**16.8**	**858**
644.nab_s	128	16.3	1070	**16.3**	**1070**	16.2	1080	128	16.3	1070	**16.3**	**1070**	16.2	1080
649.fotonik3d_s	128	42.8	213	42.6	214	**42.8**	**213**	128	42.8	213	42.6	214	**42.8**	**213**
654.roms_s	128	22.0	715	21.3	739	**21.8**	**724**	128	22.0	715	21.3	739	**21.8**	**724**

SPECspeed®2017_fp_base = 399

SPECspeed®2017_fp_peak = 399

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

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
tuned-adm profile was set to throughput-performance using "tuned-adm profile throughput-performance"
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
KMP_AFFINITY = "granularity=fine,compact"
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-64"
MALLOC_CONF = "retain:true"
OMP_STACKSIZE = "192M"
```

General Notes

```
 Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM
 memory using Redhat Enterprise Linux 8.0
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
 sources available from jemalloc.net or https://github.com/jemalloc/jemalloc/releases
```

Platform Notes

```
BIOS Configuration : Parameters are selected in the order shown below
Workload Profile set to General Peak Frequency Compute
Intel Hyper-Threading set to Disabled
Thermal Configuration set to Maximum Cooling
Enhanced Processor Performance Profile set to Aggressive
Memory Patrol Scrubbing set to Disabled
Last Level Cache (LLC) Prefetch set to Enabled
UPI Prefetch set to Disabled

 Sysinfo program /home/cpu2017/bin/sysinfo
 Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
 running on htmorphdb2 Wed Apr 15 12:28:01 2026

 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 (254.27+suse.167.g130293e510)
 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
 19. OS release
 20. Disk information
 21. /sys/devices/virtual/dmi/id
 22. dmidecode
 23. BIOS
 ------------------------------------------------------------

 ------------------------------------------------------------
 1. uname -a
   Linux htmorphdb2 6.4.0-150700.53.6-default #1 SMP PREEMPT_DYNAMIC Tue Jul  1 14:54:47 UTC 2025 (8ab7501)
   x86_64 x86_64 x86_64 GNU/Linux

 ------------------------------------------------------------
 2. w
    12:28:01 up 13:12,  1 user,  load average: 0.00, 0.00, 0.06
   USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
   root     pts/0    172.16.0.100     Tue23    1.00s  0.85s  0.00s -bash

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

 ------------------------------------------------------------
 4. ulimit -a
```

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Platform Notes (Continued)

```
   core file size          (blocks, -c) unlimited
   data seg size           (kbytes, -d) unlimited
   scheduling priority             (-e) 0
   file size               (blocks, -f) unlimited
   pending signals                 (-i) 4127035
   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) 4127035
   virtual memory          (kbytes, -v) unlimited
   file locks                      (-x) unlimited

------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize=42
 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
 sshd: root [priv]
 sshd: root@pts/0
 -bash
 -bash
 runcpu --nobuild --action validate --define default-platform-flags -c
   ic2025.2-linux64-graniterapids-speed-20250605.cfg --define cores=128 --tune base,peak -o all --define
   drop_caches fpspeed
 runcpu --nobuild --action validate --define default-platform-flags --configfile
   ic2025.2-linux64-graniterapids-speed-20250605.cfg --define cores=128 --tune base,peak --output_format all
   --define drop_caches --nopower --runmode speed --tune base:peak --size refspeed fpspeed --nopreenv
   --note-preenv --logfile $SPEC/tmp/CPU2017.002/templogs/preenv.fpspeed.002.0.log --lognum 002.0
   --from_runcpu 2
 specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017

------------------------------------------------------------
6. /proc/cpuinfo
    model name      : Intel(R) Xeon(R) 6762P
    vendor_id       : GenuineIntel
    cpu family      : 6
    model           : 173
    stepping        : 1
    microcode       : 0x1000411
    bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
    cpu cores       : 64
    siblings        : 64
    2 physical ids (chips)
    128 processors (hardware threads)
    physical id 0: core ids 0-31,64-95
    physical id 1: core ids 0-31,64-95
    physical id 0: apicids
    0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,128,130,132,13
    4,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174,176,178,180,182,184,186
    ,188,190
    physical id 1: apicids
    256,258,260,262,264,266,268,270,272,274,276,278,280,282,284,286,288,290,292,294,296,298,300,302,304,306,3
    08,310,312,314,316,318,384,386,388,390,392,394,396,398,400,402,404,406,408,410,412,414,416,418,420,422,42
    4,426,428,430,432,434,436,438,440,442,444,446
  Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
```

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Platform Notes (Continued)

```
  virtualized systems.  Use the above data carefully.

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

From lscpu from util-linux 2.40.4:
  Architecture:                            x86_64
  CPU op-mode(s):                          32-bit, 64-bit
  Address sizes:                           46 bits physical, 57 bits virtual
  Byte Order:                              Little Endian
  CPU(s):                                  128
  On-line CPU(s) list:                     0-127
  Vendor ID:                               GenuineIntel
  Model name:                              Intel(R) Xeon(R) 6762P
  CPU family:                              6
  Model:                                   173
  Thread(s) per core:                      1
  Core(s) per socket:                      64
  Socket(s):                               2
  Stepping:                                1
  BogoMIPS:                                5800.00
  Flags:                                   fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat
                                           pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx
                                           pdpe1gb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good
                                           nopl xtopology nonstop_tsc cpuid aperfmperf tsc_known_freq pni
                                           pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma
                                           cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt
                                           tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm
                                           3dnowprefetch cpuid_fault epb cat_l3 cat_l2 cdp_l3 intel_ppin
                                           cdp_l2 ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow
                                           flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep
                                           bmi2 erms invpcid cqm rdt_a avx512f avx512dq rdseed adx smap
                                           avx512ifma clflushopt clwb intel_pt avx512cd sha_ni avx512bw
                                           avx512vl xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc
                                           cqm_mbm_total cqm_mbm_local split_lock_detect user_shstk avx_vnni
                                           avx512_bf16 wbnoinvd dtherm ida arat pln pts hfi vnmi avx512vbmi
                                           umip pku ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq
                                           avx512_vnni avx512_bitalg tme 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:                               6 MiB (128 instances)
  L1i cache:                               8 MiB (128 instances)
  L2 cache:                                256 MiB (128 instances)
  L3 cache:                                640 MiB (2 instances)
  NUMA node(s):                            2
  NUMA node0 CPU(s):                       0-63
  NUMA node1 CPU(s):                       64-127
  Vulnerability Gather data sampling:      Not affected
  Vulnerability Indirect target selection: Not affected
  Vulnerability Itlb multihit:             Not affected
  Vulnerability L1tf:                      Not affected
  Vulnerability Mds:                       Not affected
  Vulnerability Meltdown:                  Not affected
  Vulnerability Mmio stale data:           Not affected
  Vulnerability Reg file data sampling:    Not affected
  Vulnerability Retbleed:                  Not affected
  Vulnerability Spec rstack overflow:      Not affected
  Vulnerability Spec store bypass:         Mitigation; Speculative Store Bypass disabled via prctl
```

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Platform Notes (Continued)

```
  Vulnerability Spectre v1:                Mitigation; usercopy/swapgs barriers and __user pointer
                                           sanitization
  Vulnerability Spectre v2:                Mitigation; Enhanced / Automatic IBRS; IBPB conditional;
                                           PBRSB-eIBRS Not affected; BHI BHI_DIS_S
  Vulnerability Srbds:                     Not affected
  Vulnerability Tsx async abort:           Not affected

From lscpu --cache:
     NAME ONE-SIZE ALL-SIZE WAYS TYPE        LEVEL   SETS PHY-LINE COHERENCY-SIZE
     L1d       48K       6M   12 Data            1     64        1             64
     L1i       64K       8M   16 Instruction     1     64        1             64
     L2         2M     256M   16 Unified         2   2048        1             64
     L3       320M     640M   16 Unified         3 327680        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: 0-63
  node 0 size: 515792 MB
  node 0 free: 511093 MB
  node 1 cpus: 64-127
  node 1 size: 515999 MB
  node 1 free: 502019 MB
  node distances:
  node   0   1
    0:  10  21
    1:  21  10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1056554888 kB

------------------------------------------------------------
10. who -r
  run-level 3 Apr 14 23:15

------------------------------------------------------------
11. Systemd service manager version: systemd 254 (254.27+suse.167.g130293e510)
  Default Target  Status
  multi-user      running

------------------------------------------------------------
12. Services, from systemctl list-unit-files
  STATE            UNIT FILES
  enabled          ModemManager YaST2-Firstboot YaST2-Second-Stage apparmor appstream-sync-cache auditd
                   bluetooth cron display-manager getty@ irqbalance issue-generator kbdsettings klog
                   lvm2-monitor nscd nvmefc-boot-connections nvmf-autoconnect postfix purge-kernels rollback
                   rsyslog smartd sshd systemd-pstore tuned wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6
                   wickedd-nanny wpa_supplicant
  enabled-runtime  systemd-remount-fs
  disabled         NetworkManager NetworkManager-dispatcher NetworkManager-wait-online accounts-daemon autofs
                   autoyast-initscripts blk-availability bluetooth-mesh boot-sysctl ca-certificates
                   chrony-wait chronyd console-getty cups cups-browsed debug-shell dnsmasq ebtables
                   exchange-bmc-os-info firewalld fsidd gnome-remote-desktop gpm grub2-once haveged
                   hwloc-dump-hwdata ipmi ipmievd issue-add-ssh-keys kexec-load lunmask man-db-create
                   multipathd nfs nfs-blkmap nmb openvpn@ ostree-remount ostree-state-overlay@ rpcbind
                   rpmconfigcheck rsyncd rtkit-daemon samba-bgqd 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
```

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Platform Notes (Continued)

```
                  update-system-flatpaks upower vncserver@ wpa_supplicant@
  indirect        pcscd saned@ systemd-userdbd wickedd

------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.4.0-150700.53.6-default
  root=UUID=bfb202a8-a05a-492f-99c7-489449e21039
  splash=silent
  resume=/dev/disk/by-uuid/10bd58fa-bf9e-42a9-8ce5-f9d25e2dc028
  mitigations=auto
  quiet
  security=apparmor

------------------------------------------------------------
14. cpupower frequency-info
  analyzing CPU 29:
    Unable to determine current policy
    boost state support:
      Supported: yes
      Active: yes

------------------------------------------------------------
15. tuned-adm active
  Current active profile: throughput-performance

------------------------------------------------------------
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                    40
  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                     10
  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
```

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Platform Notes (Continued)

```
  max_ptes_swap             64
  pages_to_scan           4096
  scan_sleep_millisecs   10000

------------------------------------------------------------
19. OS release
  From /etc/*-release /etc/*-version
  os-release SUSE Linux Enterprise Server 15 SP7

------------------------------------------------------------
20. Disk information
SPEC is set to: /home/cpu2017
  Filesystem     Type  Size  Used Avail Use% Mounted on
  /dev/nvme0n1p3 xfs   1.9T  316G  1.6T  17% /home

------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:         HPE
    Product:        HPE ProLiant Compute DL380a Gen12
    Product Family: ProLiant
    Serial:         7CED18P0PL

------------------------------------------------------------
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:
    16x Hynix HMCG94AHBRA480N 64 GB 2 rank 6400


------------------------------------------------------------
23. BIOS
(This section combines info from /sys/devices and dmidecode.)
   BIOS Vendor:       HPE
   BIOS Version:      1.64
   BIOS Date:         03/06/2026
   BIOS Revision:     1.64
   Firmware Revision: 1.20
```

Compiler Version Notes

```
==============================================================================================================
C              | 619.lbm_s(base, peak) 638.imagick_s(base, peak) 644.nab_s(base, peak)
--------------------------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
--------------------------------------------------------------------------------------------------------------

==============================================================================================================
C++, C, Fortran | 607.cactuBSSN_s(base, peak)
--------------------------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
```

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Compiler Version Notes (Continued)

```
------------------------------------------------------------------------------------------------------------
==============================================================================================================
Fortran         | 603.bwaves_s(base, peak) 649.fotonik3d_s(base, peak) 654.roms_s(base, peak)
------------------------------------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------------------------------------

==============================================================================================================
Fortran, C      | 621.wrf_s(base, peak) 627.cam4_s(base, peak) 628.pop2_s(base, peak)
------------------------------------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
icx

Fortran benchmarks:
ifx

Benchmarks using both Fortran and C:
ifx icx

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

Base Portability Flags

603.bwaves_s: -DSPEC_LP64
607.cactuBSSN_s: -DSPEC_LP64
619.lbm_s: -DSPEC_LP64
621.wrf_s: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
627.cam4_s: -DSPEC_LP64 -DSPEC_CASE_FLAG
628.pop2_s: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
-assume byterecl
638.imagick_s: -DSPEC_LP64
644.nab_s: -DSPEC_LP64
649.fotonik3d_s: -DSPEC_LP64
654.roms_s: -DSPEC_LP64

Base Optimization Flags

C benchmarks:
```
-w -std=c11 -m64 -Wl,-z,muldefs -xgraniterapids -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -Wno-implicit-int -mprefer-vector-width=512
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

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

Benchmarks using both Fortran and C:
```
-w -m64 -std=c11 -Wl,-z,muldefs -xgraniterapids -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -Wno-implicit-int -mprefer-vector-width=512
-nostandard-realloc-lhs -align array32byte -auto
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Benchmarks using Fortran, C, and C++:
```
-w -std=c++14 -m64 -std=c11 -Wl,-z,muldefs -xgraniterapids -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP -Wno-implicit-int
-mprefer-vector-width=512 -nostandard-realloc-lhs -align array32byte
-auto -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Peak Compiler Invocation

C benchmarks:
```
icx
```

Fortran benchmarks:
```
ifx
```

Benchmarks using both Fortran and C:
```
ifx icx
```

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

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

619.lbm_s: basepeak = yes

638.imagick_s: basepeak = yes

644.nab_s: basepeak = yes

Fortran benchmarks:

603.bwaves_s: basepeak = yes

649.fotonik3d_s: basepeak = yes

654.roms_s: basepeak = yes

Benchmarks using both Fortran and C:

621.wrf_s: basepeak = yes

627.cam4_s: basepeak = yes

628.pop2_s: basepeak = yes

Benchmarks using Fortran, C, and C++:

607.cactuBSSN_s: 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-GNR-rev1.6.html
http://www.spec.org/cpu2017/flags/Intel-ic2025-official-linux64.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-GNR-rev1.6.xml
http://www.spec.org/cpu2017/flags/Intel-ic2025-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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