



SPEC CPU®2017 Floating Point Speed Result

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Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant Compute DL360 Gen12
(2.50 GHz, Intel Xeon 6730P)

SPECspeed®2017_fp_base = 337

SPECspeed®2017_fp_peak = 337

CPU2017 License: 3

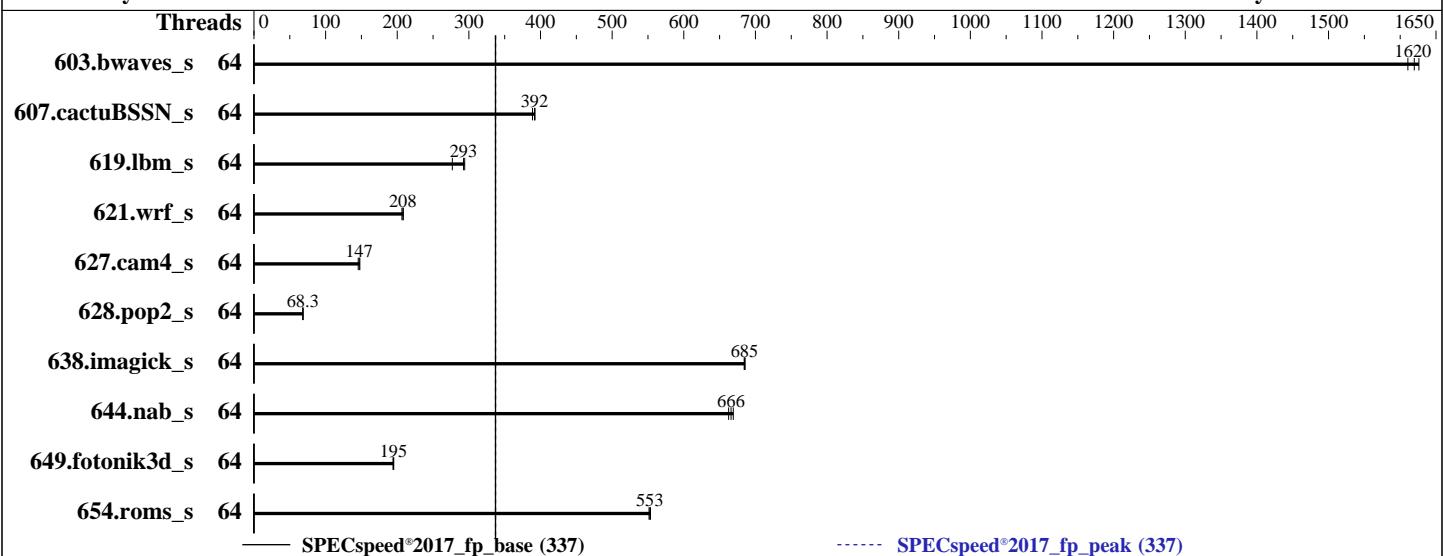
Test Date: Apr-2025

Test Sponsor: HPE

Hardware Availability: Mar-2025

Tested by: HPE

Software Availability: Jun-2024



Hardware

CPU Name: Intel Xeon 6730P
Max MHz: 3800
Nominal: 2500
Enabled: 64 cores, 2 chips
Orderable: 1,2 chips
Cache L1: 64 KB I + 48 KB D on chip per core
L2: 2 MB I+D on chip per core
L3: 288 MB I+D on chip per chip
Other: None
Memory: 512 GB (16 x 32 GB 2Rx8 PC5-6400B-R)
Storage: 1 x 3.2 TB NVMe SSD
Other: CPU Cooling: Air

OS:

SUSE Linux Enterprise Server 15 SP6

Kernel 6.4.0-150600.21-default

C/C++: Version 2024.1 of Intel oneAPI DPC++/C++ Compiler for Linux;

Fortran: Version 2024.1 of Intel Fortran Compiler for Linux;

Yes

HPE BIOS Version v1.20 02/14/2025 released Feb-2025

xfs

Run level 5 (multi-user)

64-bit

64-bit

jemalloc memory allocator V5.0.1

Compiler:

Power Management: BIOS set to prefer performance at the cost of additional power usage

Software

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Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
603.bwaves_s	64	36.6	1610	36.3	1630	<u>36.4</u>	<u>1620</u>	64	36.6	1610	36.3	1630	<u>36.4</u>	<u>1620</u>
607.cactuBSSN_s	64	42.9	389	<u>42.6</u>	<u>392</u>	42.5	392	64	42.9	389	<u>42.6</u>	<u>392</u>	42.5	392
619.lbm_s	64	17.8	294	18.9	277	<u>17.9</u>	<u>293</u>	64	17.8	294	18.9	277	<u>17.9</u>	<u>293</u>
621.wrf_s	64	64.0	207	<u>63.6</u>	<u>208</u>	63.4	208	64	64.0	207	<u>63.6</u>	<u>208</u>	63.4	208
627.cam4_s	64	60.9	146	60.0	148	<u>60.3</u>	<u>147</u>	64	60.9	146	60.0	148	<u>60.3</u>	<u>147</u>
628.pop2_s	64	174	68.2	<u>174</u>	<u>68.3</u>	173	68.6	64	174	68.2	<u>174</u>	<u>68.3</u>	173	68.6
638.imagick_s	64	21.0	686	<u>21.1</u>	<u>685</u>	21.1	684	64	21.0	686	<u>21.1</u>	<u>685</u>	21.1	684
644.nab_s	64	26.4	663	26.1	669	<u>26.2</u>	<u>666</u>	64	26.4	663	26.1	669	<u>26.2</u>	<u>666</u>
649.fotonik3d_s	64	47.0	194	<u>46.8</u>	<u>195</u>	46.7	195	64	47.0	194	<u>46.8</u>	<u>195</u>	46.7	195
654.roms_s	64	<u>28.5</u>	<u>553</u>	28.6	551	28.4	554	64	<u>28.5</u>	<u>553</u>	28.6	551	28.4	554

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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
runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>
tuned-adm profile was stopped using "systemctl stop tuned"
```

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 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.

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>



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Platform Notes

BIOS Configuration:

Workload Profile set to General Peak Frequency Compute
Enhanced Processor Performance Profile set to Aggressive
Thermal Configuration set to Maximum Cooling
Memory Patrol Scrubbing set to Disabled
Last Level Cache (LLC) Prefetch set to Enabled
Intel UPI Prefetch set to Disabled
Intel Hyper-Threading set to Disabled
Workload Profile set to Custom
Collaborative Power Control set to Enabled

```
Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost Tue Apr  8 02:07:47 2025
```

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

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- 1. uname -a
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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. tuned-adm active
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17. /sys/kernel/mm/transparent_hugepage
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19. OS release
20. Disk information
21. /sys/devices/virtual/dmi/id
22. dmidecode
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-

1. uname -a
Linux localhost 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
02:07:47 up 1:20, 3 users, load average: 0.00, 0.65, 13.58
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
root pts/0 172.17.1.96 00:49 11.00s 0.80s 0.00s -bash

3. Username
From environment variable \$USER: root

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Platform Notes (Continued)

```
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) 2062852
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) 2062852
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
  ic2024.1-lin-core-avx512-speed-20240308.cfg --define cores=64 --tune base,peak -o all --define drop_caches
  fpspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
  ic2024.1-lin-core-avx512-speed-20240308.cfg --define cores=64 --tune base,peak --output_format all
  --define drop_caches --nopower --runmode speed --tune base:peak --size refspeed fpspeed --nopreenv
  --note-preenv --logfile $SPEC/tmp/CPU2017.004/templogs/preenv.fpspeed.004.0.log --lognum 004.0
  --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017
```

```
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6730P
vendor_id       : GenuineIntel
cpu family     : 6
model          : 173
stepping        : 1
microcode      : 0x1000380
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores      : 32
siblings        : 32
2 physical ids (chips)
64 processors (hardware threads)
physical id 0: core ids 0-15,64-79
physical id 1: core ids 0-15,64-79
physical id 0: apicids
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,128,130,132,134,136,138,140,142,144,146,148,150,152,154,156,15
8
physical id 1: apicids
256,258,260,262,264,266,268,270,272,274,276,278,280,282,284,286,384,386,388,390,392,394,396,398,400,402,4
04,406,408,410,412,414
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 2.39.3:

```
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): 64
On-line CPU(s) list: 0-63
Vendor ID: GenuineIntel
BIOS Vendor ID: Intel(R) Corporation
Model name: Intel(R) Xeon(R) 6730P
BIOS Model name: Intel(R) Xeon(R) 6730P CPU @ 2.5GHz
BIOS CPU family: 179
CPU family: 6
Model: 173
Thread(s) per core: 1
Core(s) per socket: 32
Socket(s): 2
Stepping: 1
BogoMIPS: 5000.00
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 aperf mperf 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_13 cat_12 cdp_13 intel_ppin cdp_12
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 cqmq rdt_a avx512f avx512dq rdseed adx smap avx512ifma clflushopt
clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec
xgetbv1 xsaves cqmq_llc cqmq_occup_llc cqmq_mbm_total cqmq_mbm_local
split_lock_detect user_shstx 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_lld arch_capabilities
Virtualization: VT-x
L1d cache: 3 MiB (64 instances)
L1i cache: 4 MiB (64 instances)
L2 cache: 128 MiB (64 instances)
L3 cache: 576 MiB (2 instances)
NUMA node(s): 4
NUMA node0 CPU(s): 0-15
NUMA node1 CPU(s): 16-31
NUMA node2 CPU(s): 32-47
NUMA node3 CPU(s): 48-63
Vulnerability Gather data sampling: Not affected
Vulnerability Itlb multihit: Not affected
Vulnerability L1tf: Not affected
Vulnerability Mds: Not affected
Vulnerability Meltdown: Not affected
Vulnerability Mmio stale data: Not affected
Vulnerability Reg file data sampling: Not affected
```

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Platform Notes (Continued)

Vulnerability Retbleed:	Not affected
Vulnerability Spec rstack overflow:	Not affected
Vulnerability Spec store bypass:	Mitigation; Speculative Store Bypass disabled via prctl
Vulnerability Spectre v1:	Mitigation; usercopy/swapgs barriers and __user pointer sanitization
Vulnerability Spectre v2:	Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling; PBRSB-eIBRS Not affected; BHI BHI_DIS_S
Vulnerability Srbds:	Not affected
Vulnerability Tsx async abort:	Not affected

From lscpu --cache:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	3M	12	Data	1	64	1	64
L1i	64K	4M	16	Instruction	1	64	1	64
L2	2M	128M	16	Unified	2	2048	1	64
L3	288M	576M	16	Unified	3	294912	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
node 0 size: 128745 MB
node 0 free: 122246 MB
node 1 cpus: 16-31
node 1 size: 129019 MB
node 1 free: 125569 MB
node 2 cpus: 32-47
node 2 size: 129019 MB
node 2 free: 128180 MB
node 3 cpus: 48-63
node 3 size: 128958 MB
node 3 free: 128265 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: 528121828 kB
```

10. who -r

```
run-level 5 Apr 8 00:48
```

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

```
Default Target Status
graphical 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 wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny wpa_supplicant

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Platform Notes (Continued)

```
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 gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievnd
                  issue-add-ssh-keys kexec-load lummask man-db-create multipathd nfs nfs-blkmap nmb openvpn@ 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 tuned udisks2 update-system-flatpaks upower vncserver@ wpa_supplicant@ pcscd saned@ systemd-userdbd wickedd
```

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

```
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
root=UUID=6f38f8cb-6744-4bb2-980a-6e692ebdf8b4
splash=silent
resume=/dev/disk/by-uuid/3188516f-5c98-4497-afe7-d252ff459ba8
mitigations=auto
quiet
security=apparmor
```

14. cpupower frequency-info

```
analyzing CPU 14:
  Unable to determine current policy
  boost state support:
    Supported: yes
    Active: yes
```

15. tuned-adm active

```
It seems that tuned daemon is not running, preset profile is not activated.
Preset profile: balanced
```

16. sysctl

kernel.numa_balancing	1
kernel.randomize_va_space	2
vm.compaction_proactiveness	20
vm.dirty_background_bytes	0
vm.dirty_background_ratio	10
vm.dirty_bytes	0
vm.dirty_expire_centisecs	3000
vm.dirty_ratio	20
vm.dirty_writeback_centisecs	500
vm.dirtytime_expire_seconds	43200
vm.extfrag_threshold	500
vm.min_unmapped_ratio	1
vm.nr_hugepages	0
vm.nr_hugepages_mempolicy	0
vm.nr_overcommit_hugepages	0
vm.swappiness	60
vm.watermark_boost_factor	15000
vm.watermark_scale_factor	10
vm.zone_reclaim_mode	0

17. /sys/kernel/mm/transparent_hugepage

```
defrag      always defer defer+madvise [madvise] never
```

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Platform Notes (Continued)

```
enabled      [always] madvise never
hpage_pmd_size 2097152
shmem_enabled always within_size advise [never] deny force

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

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

-----
20. Disk information
SPEC is set to: /home/cpu2017
Filesystem Type Size Used Avail Use% Mounted on
/dev/nvme2n1p3 xfs 2.0T 447G 1.5T 23% /home

-----
21. /sys/devices/virtual/dmi/id
Vendor: HPE
Product: HPE ProLiant Compute DL360 Gen12
Product Family: ProLiant
Serial: D249RP0053

-----
22. 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:
 1x Hynix HMCG88AHBRA472N 32 GB 2 rank 6400
 15x Micron MTC20F2085S1RC64BD2 QSFF 32 GB 2 rank 6400

-----
23. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor: HPE
BIOS Version: 1.20
BIOS Date: 02/14/2025
BIOS Revision: 1.20
Firmware Revision: 1.10
```

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 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
```

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Compiler Version Notes (Continued)

=====
C++, C, Fortran | 607.cactubssn_s(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.
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
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Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.

=====
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 2024.1.0 Build 20240308
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=====
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 2024.1.0 Build 20240308
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
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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

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SPEC CPU®2017 Floating Point Speed Result

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Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant Compute DL360 Gen12
(2.50 GHz, Intel Xeon 6730P)

SPECspeed®2017_fp_base = 337

SPECspeed®2017_fp_peak = 337

CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Apr-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

Base Portability Flags (Continued)

```
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 -xCORE-AVX512 -Ofast -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fopenmp
-DSPEC_OPENMP -Wno-implicit-int -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc
```

Fortran benchmarks:

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

Peak Compiler Invocation

C benchmarks:

icx

Fortran benchmarks:

ifx

(Continued on next page)



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SPECspeed®2017_fp_peak = 337

CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Apr-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

Peak Compiler Invocation (Continued)

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.cactusBSSN_s: basepeak = yes`



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CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Apr-2025

Hardware Availability: Mar-2025

Software Availability: Jun-2024

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-rev1.2.html>

<http://www.spec.org/cpu2017/flags/Intel-ic2024-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-rev1.2.xml>

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

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