SPEC CPU®2017 Floating Point Speed Result

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Tyrone Systems

(Test Sponsor: Netweb Technologies India Ltd)

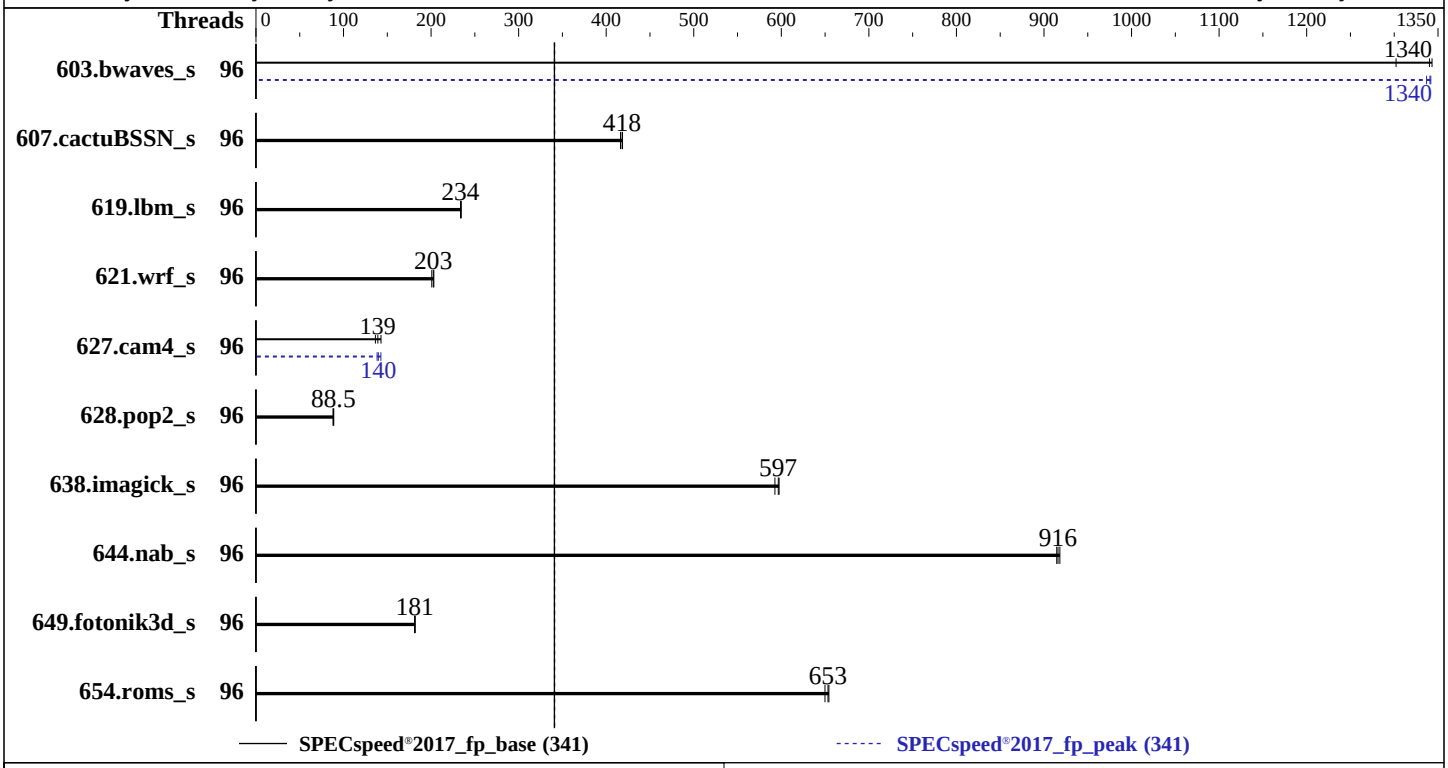
(Tyrone Camarero MDI300A3R-212)
(2.70 GHz,Intel Xeon 6747P)

SPECspeed®2017_fp_base = 341

SPECspeed®2017_fp_peak = 341

CPU2017 License: 6042
Test Sponsor: Netweb Technologies India Ltd
Tested by: Tyrone Systems

Test Date: May-2026
Hardware Availability: Oct-2025
Software Availability: May-2026



Hardware

CPU Name:	Intel Xeon 6747P
Max MHz:	3900
Nominal:	2700
Enabled:	96 cores, 2 chips, 2 threads/core
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:	1536 GB (16 x 96 GB 2Rx4 PC5-6400B-R)
Storage:	1 x 960GB M.2 NVMe SSD
Other:	CPU Cooling: Air

Software

OS:	Ubuntu 22.04.5 LTS 5.15.0-179-generic
Compiler:	C/C++: Version 2024.1 of Intel oneAPI DPC++/C++ Compiler for Linux; Fortran: Version 2024.1 of Intel Fortran Compiler for Linux;
Parallel:	Yes
Firmware:	Version ES418INW.M01 released Sep-2025
File System:	ext4
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 set to prefer performance at the cost of additional power usage.

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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	96	45.3	1300	**44.0**	**1340**	43.9	1340	96	44.1	1340	44.0	1340	**44.0**	**1340**
607.cactuBSSN_s	96	**39.9**	**418**	39.8	419	40.0	416	96	**39.9**	**418**	39.8	419	40.0	416
619.lbm_s	96	**22.4**	**234**	22.4	234	22.3	234	96	**22.4**	**234**	22.4	234	22.3	234
621.wrf_s	96	65.9	201	65.1	203	**65.3**	**203**	96	65.9	201	65.1	203	**65.3**	**203**
627.cam4_s	96	62.1	143	65.0	136	**63.7**	**139**	96	**63.4**	**140**	62.1	143	64.1	138
628.pop2_s	96	134	88.9	135	88.0	**134**	**88.5**	96	134	88.9	135	88.0	**134**	**88.5**
638.imagick_s	96	24.3	593	**24.2**	**597**	24.1	597	96	24.3	593	**24.2**	**597**	24.1	597
644.nab_s	96	19.0	918	**19.1**	**916**	19.1	915	96	19.0	918	**19.1**	**916**	19.1	915
649.fotonik3d_s	96	50.1	182	50.3	181	**50.2**	**181**	96	50.1	182	50.3	181	**50.2**	**181**
654.roms_s	96	**24.1**	**653**	24.2	650	24.1	654	96	**24.1**	**653**	24.2	650	24.1	654

SPECspeed®2017_fp_base = 341

SPECspeed®2017_fp_peak = 341

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

Submit Notes

```
The numactl mechanism was used to bind copies to processors. The config file option 'submit'
was used to generate numactl commands to bind each copy to a specific processor.
For details, please see the config file.
```

Operating System Notes

```
Stack size set to unlimited using "ulimit -s unlimited"
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
KMP_AFFINITY = "granularity=fine,compact,1,0"
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
 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>
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.
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.
NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)
is mitigated in the system as tested and documented.
 jemalloc, a general purpose malloc implementation
```

(Continued on next page)

General Notes (Continued)

```
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 Settings:
Hyper-Threading [ALL]: Enable

 Sysinfo program /home/cpu2017/bin/sysinfo
 Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
 running on benchmark Sun May 31 16:44:41 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 249 (249.11-0ubuntu3.19)
 12. Failed units, from systemctl list-units --state=failed
 13. Services, from systemctl list-unit-files
 14. Linux kernel boot-time arguments, from /proc/cmdline
 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 benchmark 5.15.0-179-generic #189-Ubuntu SMP Tue May 5 18:20:56 UTC 2026 x86_64 x86_64 x86_64
   GNU/Linux

 ------------------------------------------------------------
 2. w
    16:44:41 up 1 day,  4:23,  2 users,  load average: 5.76, 7.13, 4.31
   USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
   intel    tty1     -                22May26  9days  2.39s  0.03s -bash
   intel    pts/0    -                22May26  3:45m  1.37s  2.34s sudo su

 ------------------------------------------------------------
 3. Username
   From environment variable $USER:  root
   From the command 'logname':       intel

 ------------------------------------------------------------
```

(Continued on next page)

Platform Notes (Continued)

```
4. ulimit -a
  time(seconds)        unlimited
  file(blocks)         unlimited
  data(kbytes)         unlimited
  stack(kbytes)        unlimited
  coredump(blocks)     0
  memory(kbytes)       unlimited
  locked memory(kbytes) 198110268
  process              6190476
  nofiles              1024
  vmemory(kbytes)      unlimited
  locks                unlimited
  rtprio               0

------------------------------------------------------------
5. sysinfo process ancestry
 /sbin/init
 /bin/login -p --
 -bash
 sudo su
 sudo su
 su
 bash
 bash
 runcpu --nobuild --action validate --define default-platform-flags -c
   ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=96 --tune base,peak -o all --define smt-on
   --define drop_caches fpspeed
 runcpu --nobuild --action validate --define default-platform-flags --configfile
   ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=96 --tune base,peak --output_format all
   --define smt-on --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) 6747P
    vendor_id       : GenuineIntel
    cpu family      : 6
    model           : 173
    stepping        : 1
    microcode       : 0x1000405
    bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi vmscape
    cpu cores       : 48
    siblings        : 96
    2 physical ids (chips)
    192 processors (hardware threads)
    physical id 0: core ids 0-23,64-87
    physical id 1: core ids 0-23,64-87
    physical id 0: apicids 0-47,128-175
    physical id 1: apicids 256-303,384-431
  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:
  Architecture:                         x86_64
```

(Continued on next page)

Platform Notes (Continued)

```
CPU op-mode(s):                       32-bit, 64-bit
Address sizes:                        52 bits physical, 57 bits virtual
Byte Order:                           Little Endian
CPU(s):                               192
On-line CPU(s) list:                  0-191
Vendor ID:                            GenuineIntel
Model name:                           Intel(R) Xeon(R) 6747P
CPU family:                           6
Model:                                173
Thread(s) per core:                   2
Core(s) per socket:                   48
Socket(s):                            2
Stepping:                             1
CPU max MHz:                          3900.0000
CPU min MHz:                          800.0000
BogoMIPS:                             5400.00
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 invpcid_single
                                      cdp_l2 ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi
                                      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 avx_vnni avx512_bf16
                                      wbnoinvd dtherm ida arat pln pts hwp hwp_act_window hwp_epp
                                      hwp_pkg_req 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 amx_bf16 avx512_fp16
                                      amx_tile amx_int8 flush_l1d arch_capabilities ibpb_exit_to_user
Virtualization:                       VT-x
L1d cache:                            4.5 MiB (96 instances)
L1i cache:                            6 MiB (96 instances)
L2 cache:                             192 MiB (96 instances)
L3 cache:                             576 MiB (2 instances)
NUMA node(s):                         4
NUMA node0 CPU(s):                    0-23,96-119
NUMA node1 CPU(s):                    24-47,120-143
NUMA node2 CPU(s):                    48-71,144-167
NUMA node3 CPU(s):                    72-95,168-191
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 and
                                      seccomp
Vulnerability Spectre v1:             Mitigation; usercopy/swapgs barriers and __user pointer
                                      sanitization
```

(Continued on next page)

Platform Notes (Continued)

```
  Vulnerability Spectre v2:                Mitigation; Enhanced / Automatic IBRS; IBPB conditional;
                                           PBRSB-eIBRS Not affected; BHI BHI_DIS_S
  Vulnerability Srbds:                     Not affected
  Vulnerability Tsa:                       Not affected
  Vulnerability Tsx async abort:           Not affected
  Vulnerability Vmscape:                   Mitigation; IBPB before exit to userspace

From lscpu --cache:
     NAME ONE-SIZE ALL-SIZE WAYS TYPE        LEVEL   SETS PHY-LINE COHERENCY-SIZE
     L1d       48K     4.5M   12 Data            1     64        1             64
     L1i       64K       6M   16 Instruction     1     64        1             64
     L2         2M     192M   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: 0-23,96-119
  node 0 size: 386611 MB
  node 0 free: 356911 MB
  node 1 cpus: 24-47,120-143
  node 1 size: 387012 MB
  node 1 free: 360529 MB
  node 2 cpus: 48-71,144-167
  node 2 size: 387059 MB
  node 2 free: 353271 MB
  node 3 cpus: 72-95,168-191
  node 3 size: 387052 MB
  node 3 free: 360452 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:       1584882156 kB

------------------------------------------------------------
10. who -r
  run-level 3 May 22 13:13

------------------------------------------------------------
11. Systemd service manager version: systemd 249 (249.11-0ubuntu3.19)
  Default Target  Status
  multi-user      degraded

------------------------------------------------------------
12. Failed units, from systemctl list-units --state=failed
    UNIT                                LOAD   ACTIVE SUB    DESCRIPTION
  * systemd-networkd-wait-online.service loaded failed failed Wait for Network to be Configured

------------------------------------------------------------
13. Services, from systemctl list-unit-files
  STATE            UNIT FILES
  enabled          ModemManager apparmor atop atopacct binfmt-support blk-availability cloud-config
                   cloud-final cloud-init cloud-init-local console-setup cron dmesg e2scrub_reap finalrd
```

(Continued on next page)

Platform Notes (Continued)

```
                  getty@ gpu-manager grub-common grub-initrd-fallback irqbalance keyboard-setup lvm2-monitor
                  lxd-agent multipathd networkd-dispatcher open-iscsi open-vm-tools pollinate rsyslog
                  secureboot-db setvtrgb snapd ssh systemd-networkd systemd-networkd-wait-online
                  systemd-pstore systemd-resolved systemd-timesyncd thermald ua-reboot-cmds ubuntu-advantage
                  udisks2 ufw unattended-upgrades vgauth
  enabled-runtime netplan-ovs-cleanup systemd-fsck-root systemd-remount-fs
  disabled        console-getty debug-shell ipmievd iscsid nftables rsync serial-getty@
                  systemd-boot-check-no-failures systemd-network-generator systemd-sysext
                  systemd-time-wait-sync upower
  generated       apport openipmi
  indirect        uuidd
  masked          cryptdisks cryptdisks-early hwclock lvm2 multipath-tools-boot rc rcS screen-cleanup sudo
                  x11-common

------------------------------------------------------------
14. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/vmlinuz-5.15.0-179-generic
  root=UUID=d23f4c96-e4ba-4003-a8ac-11587c2fe77c
  ro

------------------------------------------------------------
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

------------------------------------------------------------
```

(Continued on next page)

Platform Notes (Continued)

```
 18. OS release
   From /etc/*-release /etc/*-version
   os-release Ubuntu 22.04.5 LTS

 ------------------------------------------------------------
 19. Disk information
 SPEC is set to: /home/cpu2017
   Filesystem     Type  Size  Used Avail Use% Mounted on
   /dev/nvme0n1p5 ext4  701G  431G  235G  65% /home

 ------------------------------------------------------------
 20. /sys/devices/virtual/dmi/id
     Vendor:         Tyrone Systems
     Product:        Tyrone Camarero MDI300A3R-212
     Product Family: MDI300A3R-212
     Serial:         2X25003

 ------------------------------------------------------------
 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 NO DIMM NO DIMM
     16x Samsung M321RYGA0PB2-CCPWC 96 GB 2 rank 6400


 ------------------------------------------------------------
 22. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       American Megatrends International, LLC.
    BIOS Version:      ES418INW.M01
    BIOS Date:         09/19/2025
    BIOS Revision:     5.35
```

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.
--------------------------------------------------------------------------------------------------------------

==============================================================================================================
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
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
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)
--------------------------------------------------------------------------------------------------------------
```

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Compiler Version Notes (Continued)

```
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, 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
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
Copyright (C) 1985-2024 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 -xsapphirerapids -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 -xsapphirerapids -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 -xsapphirerapids -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 -xsapphirerapids -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: -w -m64 -Wl,-z,muldefs -DSPEC_OPENMP -xsapphirerapids
-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

649.fotonik3d_s: basepeak = yes

654.roms_s: basepeak = yes

Benchmarks using both Fortran and C:

621.wrf_s: basepeak = yes

627.cam4_s: -w -m64 -std=c11 -Wl,-z,muldefs -xsapphirerapids -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

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/Intel-ic2024-official-linux64.html
http://www.spec.org/cpu2017/flags/Tyrone-Platform-Settings-V1.2-EMR-revE.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.xml
http://www.spec.org/cpu2017/flags/Tyrone-Platform-Settings-V1.2-EMR-revE.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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