



SPEC CPU®2017 Floating Point Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Nettrix

R620 G50 (Intel Xeon Platinum 8570, 2.10 GHz)

SPECSpeed®2017_fp_base = 417

SPECSpeed®2017_fp_peak = 417

CPU2017 License: 6138

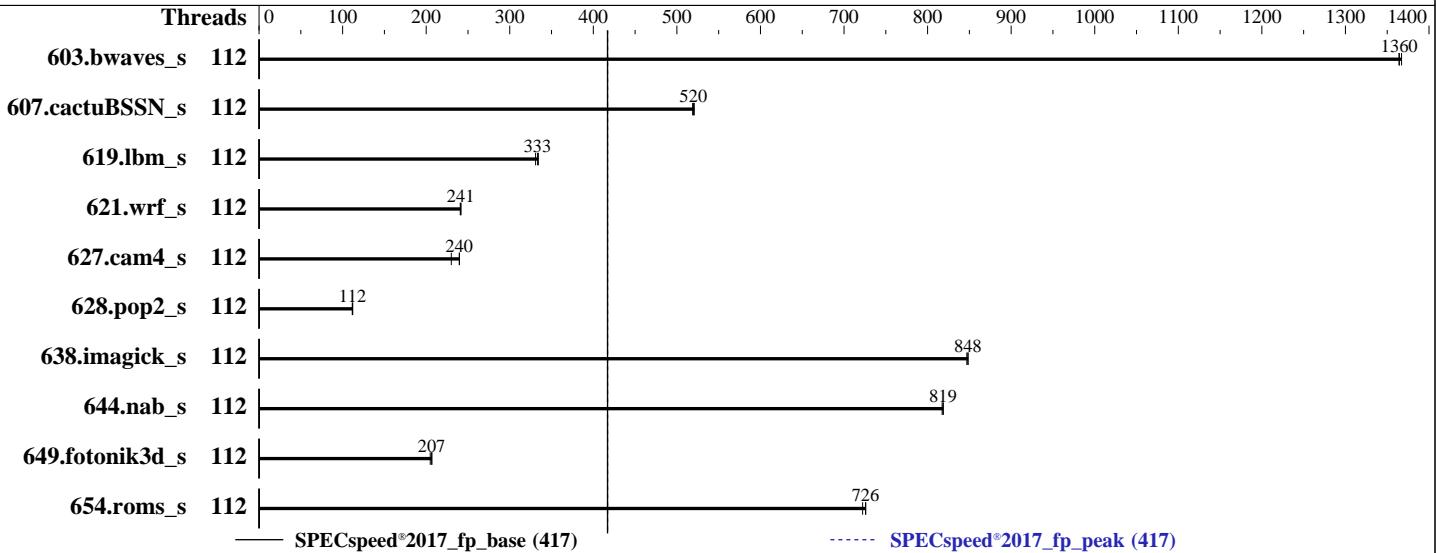
Test Date: May-2024

Test Sponsor: Nettrix

Hardware Availability: Jan-2024

Tested by: Nettrix

Software Availability: Jan-2024



Hardware

CPU Name: Intel Xeon Platinum 8570
 Max MHz: 4000
 Nominal: 2100
 Enabled: 112 cores, 2 chips
 Orderable: 1,2 chips
 Cache L1: 32 KB I + 48 KB D on chip per core
 L2: 2 MB I+D on chip per core
 L3: 300 MB I+D on chip per chip
 Other: None
 Memory: 1 TB (16 x 64 GB 2Rx4 PC5-5600B-R)
 Storage: 1 x 14 TB SATA HDD (7200 rpm)
 Other: CPU Cooling: Air

OS:

SUSE Linux Enterprise Server 15 SP5

5.14.21-150500.53-default

C/C++: Version 2023.2.3 of Intel oneAPI DPC++/C++ Compiler for Linux;
 Fortran: Version 2023.2.3 of Intel Fortran Compiler for Linux;

Parallel: Yes

Firmware: Nettrix BIOS Version NNH1041268 released Jan-2024

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



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Results Table

Benchmark	Base								Peak							
	Threads	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Threads
603.bwaves_s	112	43.2	1360	43.2	1360	112	43.2	1360	43.2	1360	112	43.2	1360	43.2	1360	112
607.cactuBSSN_s	112	32.1	519	32.1	520	32.0	521	112	32.1	519	32.1	520	32.0	521	112	
619.lbm_s	112	15.7	333	15.8	331	15.7	334	112	15.7	333	15.8	331	15.7	334	112	
621.wrf_s	112	54.7	242	54.9	241	54.8	241	112	54.7	242	54.9	241	54.8	241	112	
627.cam4_s	112	38.5	230	37.0	240	37.0	240	112	38.5	230	37.0	240	37.0	240	112	
628.pop2_s	112	106	112	106	112	106	112	112	106	112	106	112	106	112	112	
638.imagick_s	112	17.0	848	17.0	848	17.0	847	112	17.0	848	17.0	848	17.0	847	112	
644.nab_s	112	21.4	817	21.3	819	21.3	819	112	21.4	817	21.3	819	21.3	819	112	
649.fotonik3d_s	112	44.5	205	44.1	207	44.1	207	112	44.5	205	44.1	207	44.1	207	112	
654.roms_s	112	21.7	726	21.8	722	21.7	726	112	21.7	726	21.8	722	21.7	726	112	

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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"
OS set to performance mode via cpupower frequency-set -g performance

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
KMP_AFFINITY = "granularity=fine,compact"
LD_LIBRARY_PATH = "/home/tzk/SPECcpu/lib/intel64:/home/tzk/SPECcpu/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.
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
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:

SNC (Sub NUMA) set to Enable SNC2 (2-clusters)
Patrol Scrub set to Disabled
LLC dead line alloc set to Enabled
DCU Streamer Prefetcher set to Enabled
Hardware P-States set to Disabled
Enable LP [Global] set to Single LP

```
Sysinfo program /home/tzk/SPECCpu/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost Tue May 28 14:32:44 2024
```

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 (249.16+suse.171.gdad0071f15)
 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 localhost 5.14.21-150500.53-default #1 SMP PREEMPT_DYNAMIC Wed May 10 07:56:26 UTC 2023 (b630043)
x86_64 x86_64 x86_64 GNU/Linux
```

```
2. w
14:32:44 up 32 min, 1 user, load average: 5.34, 52.89, 49.62
USER      TTY      FROM          LOGIN@    IDLE    JCPU    PCPU WHAT
root      pts/0     10.2.49.197    14:14     4.00s  0.87s  0.00s tail -f nohup.out
```

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

```
4. ulimit -a
core file size          (blocks, -c) unlimited
```

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Platform Notes (Continued)

data seg size	(kbytes, -d) unlimited
scheduling priority	(-e) 0
file size	(blocks, -f) unlimited
pending signals	(-i) 4125124
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) 4125124
virtual memory	(kbytes, -v) unlimited
file locks	(-x) unlimited

5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize 30
sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
sshd: root@pts/0
-bash
/bin/sh ./reportable-ic2023.2.3-lin-core-avx512-speed-smt-off-20231121.sh
runcpu --nobuild --action validate --define default-platform-flags -c
 ic2023.2.3-lin-core-avx512-speed-20231121.cfg --define cores=112 --tune base,peak -o all --define
 drop_caches fpspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
 ic2023.2.3-lin-core-avx512-speed-20231121.cfg --define cores=112 --tune base,peak --output_format all
 --define drop_caches --nopower --runmode speed --tune base:peak --size refspeed fpspeed --nopreenv
 --note-preenv --logfile \$SPEC/tmp/CPU2017.465/templogs/preenv.fpspeed.465.0.log --lognum 465.0
 --from_runcpu 2
 specperf \$SPEC/bin/sysinfo
\$SPEC = /home/tzk/SPECcpu

6. /proc/cpuinfo
model name : INTEL(R) XEON(R) PLATINUM 8570
vendor_id : GenuineIntel
cpu family : 6
model : 207
stepping : 2
microcode : 0x21000200
bugs : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrp_brsb
cpu cores : 56
siblings : 56
2 physical ids (chips)
112 processors (hardware threads)
physical id 0: core ids 0-55
physical id 1: core ids 0-55
physical id 0: apicids
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,70,72
,74,76,78,80,82,84,86,88,90,92,94,96,98,100,102,104,106,108,110
physical id 1: apicids
128,130,132,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174,176,178,1
80,182,184,186,188,190,192,194,196,198,200,202,204,206,208,210,212,214,216,218,220,222,224,226,228,230,23
2,234,236,238
Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
virtualized systems. Use the above data carefully.

(Continued on next page)



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Platform Notes (Continued)

7. lscpu

From lscpu from util-linux 2.37.4:

Architecture:	x86_64
CPU op-mode(s):	32-bit, 64-bit
Address sizes:	52 bits physical, 57 bits virtual
Byte Order:	Little Endian
CPU(s):	112
On-line CPU(s) list:	0-111
Vendor ID:	GenuineIntel
Model name:	INTEL(R) XEON(R) PLATINUM 8570
CPU family:	6
Model:	207
Thread(s) per core:	1
Core(s) per socket:	56
Socket(s):	2
Stepping:	2
Frequency boost:	enabled
CPU max MHz:	2101.0000
CPU min MHz:	800.0000
BogoMIPS:	4200.00
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 fmpf perf 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 movebe popcnt tsc_deadline_timer aes xsave avx f16c rdrandlahf_lm abm 3dnowprefetch cpuid_fault epb cat_13 cat_12 cdp_13 invpcid_single cdp_12 ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmil hle avx2 smep bmi2 erms invpcid rtm cqm rdt_a avx512f avx512dq rdseed adx smap avx512fma clflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local avx_vnni avx512_bf16 wbnoinvd dtherm ida arat pln pts 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 avx512_fp16 amx_tile flush_lld arch_capabilities
Virtualization:	VT-x
L1d cache:	5.3 MiB (112 instances)
L1i cache:	3.5 MiB (112 instances)
L2 cache:	224 MiB (112 instances)
L3 cache:	600 MiB (2 instances)
NUMA node(s):	4
NUMA node0 CPU(s):	0-27
NUMA node1 CPU(s):	28-55
NUMA node2 CPU(s):	56-83
NUMA node3 CPU(s):	84-111
Vulnerability Itlb multihit:	Not affected
Vulnerability Llft:	Not affected
Vulnerability Mds:	Not affected
Vulnerability Meltdown:	Not affected
Vulnerability Mmio stale data:	Not affected
Vulnerability Retbleed:	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
Vulnerability Spectre v2:	Mitigation; Enhanced IBRS, IBPB conditional, RSB filling, PBRSB-eIBRS SW sequence
Vulnerability Srbds:	Not affected
Vulnerability Tsx async abort:	Not affected

(Continued on next page)



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Platform Notes (Continued)

From lscpu --cache:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	5.3M	12	Data	1	64	1	64
L1i	32K	3.5M	8	Instruction	1	64	1	64
L2	2M	224M	16	Unified	2	2048	1	64
L3	300M	600M	20	Unified	3	245760	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: 0-27

node 0 size: 258039 MB

node 0 free: 256346 MB

node 1 cpus: 28-55

node 1 size: 257528 MB

node 1 free: 253366 MB

node 2 cpus: 56-83

node 2 size: 258040 MB

node 2 free: 257142 MB

node 3 cpus: 84-111

node 3 size: 257702 MB

node 3 free: 256964 MB

node distances:

node 0 1 2 3

0: 10 20 20 20

1: 20 10 20 20

2: 20 20 10 20

3: 20 20 20 10

9. /proc/meminfo

MemTotal: 1056063640 kB

10. who -r

run-level 3 May 28 14:00

11. Systemd service manager version: systemd 249 (249.16+suse.171.gdad0071f15)

Default	Target	Status
multi-user		running

12. Services, from systemctl list-unit-files

STATE	UNIT FILES
enabled	YaST2-Firstboot YaST2-Second-Stage apparmor auditd chronyd cron cups firewalld getty@ haveged irqbalance issue-generator kbdsettings kdump kdmp-early klog lm_sensors lvm2-monitor nsqd postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
enabled-runtime	systemd-remount-fs
disabled	apcupsd autofs autoyast-initscripts blk-availability boot-sysctl ca-certificates chrony-wait console-getty corosync corosync-notifyd crm_mon ctdb cups-browsed debug-shell dlm dmraid-activation drbd drbd-lvchange@ drbd-wait-promutable@ ebttables exchange-bmc-os-info fancontrol gpm grub2-once haveged-switch-root hawk ipmi ipmievfd ipvsadm issue-add-ssh-keys kexec-load ldirectord logd lunmask lvmlockd lvmlocks man-db-create multipathd nfs nfs-blkmap pacemaker rpcbind rpmconfigcheck rsyncd sanlock sdb sdb_remote serial-getty@ smartd_generate_opts snmpd snmptrapd svnserve systemd-boot-check-no-failures systemd-network-generator systemd-sysext

(Continued on next page)



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Platform Notes (Continued)

```
systemd-time-wait-sync systemd-timesyncd tuned udisks2 wdmind  
indirect wickedd  
  
-----  
13. Linux kernel boot-time arguments, from /proc/cmdline  
BOOT_IMAGE=/boot/vmlinuz-5.14.21-150500.53-default  
root=UUID=aec0cd35-b79c-432e-8a92-68e81aa94bbb  
splash=silent  
resume=/dev/disk/by-uuid/d53caa22-ee5c-46fa-a8f2-44d678cc6069  
mitigations=auto  
quiet  
security=apparmor  
crashkernel=317M,high  
crashkernel=72M,low  
default_hugepagesz=1G  
  
-----  
14. cpupower frequency-info  
analyzing CPU 0:  
    current policy: frequency should be within 800 MHz and 2.10 GHz.  
        The governor "performance" may decide which speed to use  
        within this range.  
    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: 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   900  
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
```

(Continued on next page)



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Platform Notes (Continued)

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 openSUSE Leap 15.5

20. Disk information
SPEC is set to: /home/tzk/SPECcpu
Filesystem Type Size Used Avail Use% Mounted on
/dev/sda3 xfs 12T 240G 12T 2% /home

21. /sys/devices/virtual/dmi/id
Vendor: Nettrix
Product: R620 G50
Product Family: Rack
Serial: 6101810603447812

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:
16x Hynix HMCG94AGBRA179N 64 GB 2 rank 5600

23. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor: American Megatrends International, LLC.
BIOS Version: NNH1041268
BIOS Date: 01/26/2024
BIOS Revision: 5.32

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 2023.2.3 Build x
Copyright (C) 1985-2023 Intel Corporation. All rights reserved.

=====

=====

C++, C, Fortran | 607.cactusBSSN_s(base, peak)

=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.2.3 Build x

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Compiler Version Notes (Continued)

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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.2.3 Build x

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Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2023.2.3 Build x

Copyright (C) 1985-2023 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 2023.2.3 Build x
Copyright (C) 1985-2023 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 2023.2.3 Build x
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.2.3 Build x
Copyright (C) 1985-2023 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

(Continued on next page)



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SPECspeed®2017_fp_base = 417

SPECspeed®2017_fp_peak = 417

CPU2017 License: 6138

Test Date: May-2024

Test Sponsor: Nettrix

Hardware Availability: Jan-2024

Tested by: Nettrix

Software Availability: Jan-2024

Base Portability Flags (Continued)

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

Benchmarks using both Fortran and C:

ifx icx

(Continued on next page)



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Peak Compiler Invocation (Continued)

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/Intel-ic2023p2-official-linux64.html>

<http://www.spec.org/cpu2017/flags/Nettrix-Platform-Settings-V1.3-SPR-revA.html>



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You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2017/flags/Intel-ic2023p2-official-linux64.xml>

<http://www.spec.org/cpu2017/flags/Nettrix-Platform-Settings-V1.3-SPR-revA.xml>

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