SPEC CPU®2017 Integer Speed Result

Supermicro

UP SuperServer SYS-521C-NR
(X13SEDW-F , Intel Xeon Platinum 8592+)

$SPECspeed®2017\_int\_base = 14.2$

$SPECspeed®2017\_int\_peak = 14.5$

CPU2017 License: 001176

Test Sponsor: Supermicro

Tested by: Supermicro

Test Date: Nov-2023

Hardware Availability: Dec-2023

Software Availability: Dec-2023

Threads — performance bar chart (0 to 29.0):

Benchmark	Threads	base	peak
600.perlbench_s	128	9.57	10.6
602.gcc_s	128	12.2	12.8
605.mcf_s	128	23.2	
620.omnetpp_s	128	12.7	
623.xalancbmk_s	128	13.3	
625.x264_s	128	22.5	23.8
631.deepsjeng_s	128	7.32	
641.leela_s	128	5.86	
648.exchange2_s	128	26.1	
657.xz_s	128	28.2	

SPECspeed®2017_int_base (14.2) SPECspeed®2017_int_peak (14.5)

Hardware

CPU Name: Intel Xeon Platinum 8592+
 Max MHz: 3900
 Nominal: 1900
Enabled: 64 cores, 1 chip, 2 threads/core
Orderable: 1 chip
Cache L1: 32 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: 512 GB (8 x 64 GB 2Rx4 PC5-5600B-R)
Storage: 1 x 240 GB SATA III SSD
Other: None

Software

OS: SUSE Linux Enterprise Server 15 SP5
 Kernel 5.14.21-150500.53-default
Compiler: 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: Version 2.0 released Nov-2023
File System: xfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other: jemalloc memory allocator V5.0.1
Power Management: BIOS set to prefer performance at the cost of additional power usage.

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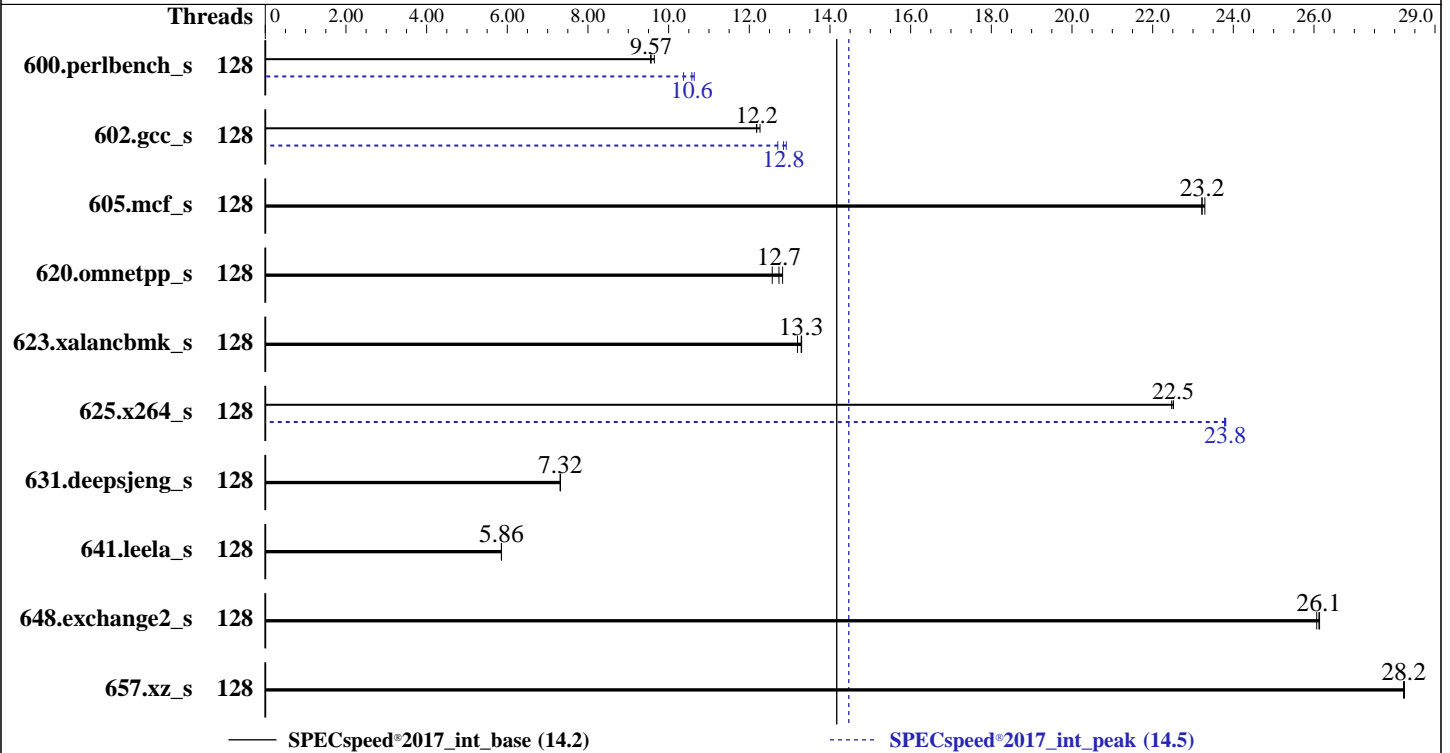
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Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	128	184	9.65	186	9.55	**186**	**9.57**	128	**168**	**10.6**	167	10.6	171	10.4
602.gcc_s	128	325	12.3	**327**	**12.2**	327	12.2	128	**310**	**12.8**	308	12.9	313	12.7
605.mcf_s	128	203	23.3	203	23.2	**203**	**23.2**	128	203	23.3	203	23.2	**203**	**23.2**
620.omnetpp_s	128	127	12.8	**128**	**12.7**	130	12.6	128	127	12.8	**128**	**12.7**	130	12.6
623.xalancbmk_s	128	**107**	**13.3**	107	13.3	107	13.2	128	**107**	**13.3**	107	13.3	107	13.2
625.x264_s	128	78.4	22.5	78.5	22.5	**78.4**	**22.5**	128	74.2	23.8	74.1	23.8	**74.1**	**23.8**
631.deepsjeng_s	128	**196**	**7.32**	196	7.31	196	7.32	128	**196**	**7.32**	196	7.31	196	7.32
641.leela_s	128	**291**	**5.86**	291	5.86	291	5.85	128	**291**	**5.86**	291	5.86	291	5.85
648.exchange2_s	128	113	26.1	**113**	**26.1**	112	26.1	128	113	26.1	**113**	**26.1**	112	26.1
657.xz_s	128	**219**	**28.2**	219	28.2	219	28.2	128	**219**	**28.2**	219	28.2	219	28.2
SPECspeed®2017_int_base =						**14.2**								
SPECspeed®2017_int_peak =						**14.5**								

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"
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/lib/ia32:/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
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

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 Settings:
Power Technology = Custom
Power Performance Tuning = BIOS Controls EPB
ENERGY_PERF_BIAS_CFG mode = Performance
DCU Streamer Prefetcher = Disable
Patrol Scrub = Disable
LLC Dead Line Alloc = Disable
KTI Prefetch = Enable
Stale AtoS = Disable

 Sysinfo program /home/cpu2017/bin/sysinfo
 Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
 running on localhost Fri Nov 24 09:16:22 2023

 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. sysctl
 16. /sys/kernel/mm/transparent_hugepage
 17. /sys/kernel/mm/transparent_hugepage/khugepaged
 18. OS release
 19. Disk information
 20. /sys/devices/virtual/dmi/id
 21. dmidecode
 22. BIOS
 ------------------------------------------------------------


 ------------------------------------------------------------
 1. uname -a
   Linux localhost 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
    09:16:22 up 17:45,  1 user,  load average: 13.08, 57.96, 92.64
    USER     TTY      FROM            LOGIN@   IDLE   JCPU   PCPU WHAT
    root     tty1     -               Thu15  17:36m  1.20s  0.00s -bash


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


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

(Continued on next page)

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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) 2062410
   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) 2062410
   virtual memory          (kbytes, -v) unlimited
   file locks                      (-x) unlimited


   ------------------------------------------------------------
5. sysinfo process ancestry
 /usr/lib/systemd/systemd --switched-root --system --deserialize 30
 login -- root
 -bash
 -bash
 runcpu --nobuild --action validate --define default-platform-flags -c
   ic2023.2.3-lin-core-avx512-speed-20231121.cfg --define cores=64 --tune base,peak -o all --define
   intspeedaffinity --define smt-on --define drop_caches intspeed
 runcpu --nobuild --action validate --define default-platform-flags --configfile
   ic2023.2.3-lin-core-avx512-speed-20231121.cfg --define cores=64 --tune base,peak --output_format all
   --define intspeedaffinity --define smt-on --define drop_caches --nopower --runmode speed --tune base:peak
   --size refspeed intspeed --nopreenv --note-preenv --logfile
   $SPEC/tmp/CPU2017.003/templogs/preenv.intspeed.003.0.log --lognum 003.0 --from_runcpu 2
 specperl $SPEC/bin/sysinfo
 $SPEC = /home/cpu2017


   ------------------------------------------------------------
6. /proc/cpuinfo
   model name      : INTEL(R) XEON(R) PLATINUM 8592+
   vendor_id       : GenuineIntel
   cpu family      : 6
   model           : 207
   stepping        : 2
   microcode       : 0x210001a0
   bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb
   cpu cores       : 64
   siblings        : 128
   1 physical ids (chips)
   128 processors (hardware threads)
   physical id 0: core ids 0-63
   physical id 0: apicids 0-127
  Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
  virtualized systems.  Use the above data carefully.


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

 From lscpu from util-linux 2.37.4:
   Architecture:             x86_64
   CPU op-mode(s):           32-bit, 64-bit
   Address sizes:            46 bits physical, 57 bits virtual
   Byte Order:               Little Endian
```

(Continued on next page)

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Platform Notes (Continued)

```
      CPU(s):                      128
      On-line CPU(s) list:         0-127
      Vendor ID:                   GenuineIntel
      Model name:                  INTEL(R) XEON(R) PLATINUM 8592+
      CPU family:                  6
      Model:                       207
      Thread(s) per core:          2
      Core(s) per socket:          64
      Socket(s):                   1
      Stepping:                    2
      Frequency boost:             enabled
      CPU max MHz:                 1901.0000
      CPU min MHz:                 800.0000
      BogoMIPS:                    3800.00
      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 hle avx2 smep
                                   bmi2 erms invpcid rtm 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 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_l1d arch_capabilities
      Virtualization:              VT-x
      L1d cache:                   3 MiB (64 instances)
      L1i cache:                   2 MiB (64 instances)
      L2 cache:                    128 MiB (64 instances)
      L3 cache:                    320 MiB (1 instance)
      NUMA node(s):                2
      NUMA node0 CPU(s):           0-31,64-95
      NUMA node1 CPU(s):           32-63,96-127
      Vulnerability Itlb multihit: Not affected
      Vulnerability L1tf:          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

  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      32K       2M    8 Instruction     1     64        1             64
      L2        2M     128M   16 Unified         2   2048        1             64
      L3      320M     320M   20 Unified         3 262144        1             64

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

(Continued on next page)

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Platform Notes (Continued)

```
   8. numactl --hardware
   NOTE: a numactl 'node' might or might not correspond to a physical chip.
     available: 2 nodes (0-1)
     node 0 cpus: 0-31,64-95
     node 0 size: 257673 MB
     node 0 free: 213443 MB
     node 1 cpus: 32-63,96-127
     node 1 size: 257958 MB
     node 1 free: 224112 MB
     node distances:
     node   0   1
       0:  10  12
       1:  12  10


   -----------------------------------------------------------
   9. /proc/meminfo
     MemTotal:        528007700 kB


   -----------------------------------------------------------
   10. who -r
     run-level 3 Nov 23 15:31


   -----------------------------------------------------------
   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 cron display-manager getty@ irqbalance
                     issue-generator kbdsettings klog lvm2-monitor nscd postfix purge-kernels rollback rsyslog
                     smartd sshd systemd-pstore wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny
     enabled-runtime systemd-remount-fs
     disabled        autofs autoyast-initscripts blk-availability boot-sysctl ca-certificates chrony-wait
                     chronyd console-getty cups cups-browsed debug-shell ebtables exchange-bmc-os-info
                     firewalld gpm grub2-once haveged haveged-switch-root ipmi ipmievd issue-add-ssh-keys
                     kexec-load lunmask man-db-create multipathd nfs nfs-blkmap rpcbind rpmconfigcheck rsyncd
                     serial-getty@ smartd_generate_opts snmpd snmptrapd systemd-boot-check-no-failures
                     systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd udisks2
                     vncserver@
     indirect        wickedd


   -----------------------------------------------------------
   13. Linux kernel boot-time arguments, from /proc/cmdline
     BOOT_IMAGE=/boot/vmlinuz-5.14.21-150500.53-default
     root=UUID=72565a43-6e2d-4580-bfa9-6df7225e0661
     splash=silent
     mitigations=auto
     quiet
     security=apparmor


   -----------------------------------------------------------
   14. cpupower frequency-info
     analyzing CPU 0:
       current policy: frequency should be within 800 MHz and 1.90 GHz.
                       The governor "ondemand" may decide which speed to use
                       within this range.
       boost state support:
         Supported: yes
```

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Platform Notes (Continued)

```
      Active: yes


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


    -------------------------------------------------------------
    16. /sys/kernel/mm/transparent_hugepage
      defrag          always defer defer+madvise [madvise] never
      enabled         [always] madvise never
      hpage_pmd_size  2097152
      shmem_enabled   always within_size advise [never] deny force


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


    -------------------------------------------------------------
    18. OS release
      From /etc/*-release /etc/*-version
      os-release SUSE Linux Enterprise Server 15 SP5


    -------------------------------------------------------------
    19. Disk information
    SPEC is set to: /home/cpu2017
      Filesystem    Type  Size  Used Avail Use% Mounted on
      /dev/sda2     xfs   221G   83G  139G  38% /


    -------------------------------------------------------------
    20. /sys/devices/virtual/dmi/id
       Vendor:        PM_202207070954
       Product:       PPM_202207070954
       Product Family: Family
       Serial:        PS_202207070954


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

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Platform Notes (Continued)

```
 21. 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:
     8x Micron Technology MTC40F2046S1RC56BD1 64 GB 2 rank 5600


   ------------------------------------------------------------
 22. BIOS
 (This section combines info from /sys/devices and dmidecode.)
   BIOS Vendor:       American Megatrends International, LLC.
   BIOS Version:      2.0
   BIOS Date:         11/07/2023
   BIOS Revision:     5.32
```

Compiler Version Notes

```
==============================================================================================
C      | 600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base, peak) 625.x264_s(base, peak)
       | 657.xz_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++    | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base, peak) 631.deepsjeng_s(base, peak)
       | 641.leela_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.
----------------------------------------------------------------------------------------------


==============================================================================================
Fortran | 648.exchange2_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.
----------------------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

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Base Portability Flags

600.perlbench_s: `-DSPEC_LP64 -DSPEC_LINUX_X64`
602.gcc_s: `-DSPEC_LP64`
605.mcf_s: `-DSPEC_LP64`
620.omnetpp_s: `-DSPEC_LP64`
623.xalancbmk_s: `-DSPEC_LP64 -DSPEC_LINUX`
625.x264_s: `-DSPEC_LP64`
631.deepsjeng_s: `-DSPEC_LP64`
641.leela_s: `-DSPEC_LP64`
648.exchange2_s: `-DSPEC_LP64`
657.xz_s: `-DSPEC_LP64`

Base Optimization Flags

C benchmarks:
```
-w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

C++ benchmarks:
```
-w -std=c++14 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Fortran benchmarks:
```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Peak Compiler Invocation

C benchmarks:
```
icx
```

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

Fortran benchmarks:
```
ifx
```

Standard Performance Evaluation Corporation (info@spec.org)

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SPEC CPU®2017 Integer Speed Result

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Supermicro

UP SuperServer SYS-521C-NR
(X13SEDW-F , Intel Xeon Platinum 8592+)

SPECspeed®2017_int_base = 14.2

SPECspeed®2017_int_peak = 14.5

CPU2017 License: 001176
Test Sponsor: Supermicro
Tested by: Supermicro

Test Date: Nov-2023
Hardware Availability: Dec-2023
Software Availability: Dec-2023

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

600.perlbench_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -fno-strict-overflow
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

602.gcc_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc

605.mcf_s: basepeak = yes

625.x264_s: -w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-fno-alias -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

657.xz_s: basepeak = yes

C++ benchmarks:

620.omnetpp_s: basepeak = yes

623.xalancbmk_s: basepeak = yes

631.deepsjeng_s: basepeak = yes

641.leela_s: basepeak = yes

Fortran benchmarks:

(Continued on next page)

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Peak Optimization Flags (Continued)

648.exchange2_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/Supermicro-Platform-Settings-V1.2-EMR-revA.html

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/Supermicro-Platform-Settings-V1.2-EMR-revA.xml

For questions about this result, please contact the tester. For other inquiries, please contact info@spec.org.

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