### Lenovo Global Technology

**ThinkSystem SR860 V3**  
(2.90 GHz, Intel Xeon Platinum 8444H)

---

**SPECrated®2017_fp_base = 906**  
**SPECrated®2017_fp_peak = Not Run**

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**Hardware**

- **CPU Name:** Intel Xeon Platinum 8444H  
  - **Max MHZ:** 4000  
  - **Nominal:** 2900  
  - **Enabled:** 64 cores, 4 chips, 2 threads/core  
  - **Orderable:** 2,4 chips  
  - **Cache L1:** 32 KB I + 48 KB D on chip per core  
  - **L2:** 2 MB I+D on chip per core  
  - **L3:** 45 MB I+D on chip per chip  
  - **Memory:** 1 TB (32 x 32 GB 2Rx8 PC5-4800B-R)  
  - **Storage:** 1 x 480 GB SATA SSD  
  - **Other:** None

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**Software**

- **OS:** SUSE Linux Enterprise Server 15 SP4 (x86_64)  
  - **Kernel:** 5.14.21-150400.22-default
- **Compiler:** C/C++: Version 2023.0 of Intel oneAPI DPC++/C++ Compiler for Linux; Fortran: Version 2023.0 of Intel Fortran Compiler for Linux;  
- **Parallel:** No  
- **Firmware:** Lenovo BIOS Version RSE105E 1.10 released May-2023  
- **File System:** xfs  
- **System State:** Run level 3 (multi-user)  
- **Base Pointers:** 64-bit  
- **Peak Pointers:** Not Applicable  
- **Power Management:** BIOS and OS set to prefer performance at the cost of additional power usage

---

**Test Sponsor:** Lenovo Global Technology  
**Test Date:** Aug-2023  
**Hardware Availability:** Jun-2023

**Tested by:** Lenovo Global Technology  
**Software Availability:** Dec-2022

---

**CPU2017 License:** 9017  
**Test Sponsor:** Lenovo Global Technology  
**Test Date:** Aug-2023  
**Hardware Availability:** Jun-2023

**Tested by:** Lenovo Global Technology  
**Software Availability:** Dec-2022
Lenovo Global Technology
ThinkSystem SR860 V3
(2.90 GHz, Intel Xeon Platinum 8444H)

CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

Results Table

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</table>

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:
LD_LIBRARY_PATH = "/home/cpu2017-1.1.9-ic2023.0/lib/intel64:/home/cpu2017-1.1.9-ic2023.0/je5.0.1-64"
MALLOC_CONF = "retain:true"

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>
NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.

(Continued on next page)
**General Notes (Continued)**

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.


**Platform Notes**

**BIOS configuration:**
Choose Operating Mode set to Maximum Performance and then set it to Custom Mode
CPU P-state Control set to Autonomous
LLC Prefetch set to Disabled
SNC set to SNC4

Sysinfo program /home/cpu2017-1.1.9-ic2023.0/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost Thu Aug 17 01:50:32 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. numacl --hardware
9. /proc/meminfo
10. who -r
11. systemd service manager version: systemd 249 (249.11+suse.124.g2bc0b2c447)
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 5.14.21-150400.22-default #1 SMP PREEMPT_DYNAMIC Wed May 11 06:57:18 UTC 2022 (49db222)
x86_64 x86_64 x86_64 GNU/Linux

2. w
01:50:32 up 7 min, 1 user, load average: 0.08, 0.07, 0.05
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAToot tty1 - 01:49 9.00s 1.39s 0.04s -bash

(Continued on next page)
Lenovo Global Technology
ThinkSystem SR860 V3
(2.90 GHz, Intel Xeon Platinum 8444H)

SPECrate®2017_fp_base = 906
SPECrate®2017_fp_peak = Not Run

CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

Test Date: Aug-2023
Hardware Availability: Jun-2023
Software Availability: Dec-2022

Platform Notes (Continued)

3. Username
From environment variable $USER: root

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) 4126853
   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) 4126853
   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 --define numcopies=128 --c
ic2023.0-lin-sapphirerapids-rate-20221201.cfg --define smt-on --define cores=64 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base --o all fprate
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=128 --configfile
ic2023.0-lin-sapphirerapids-rate-20221201.cfg --define smt-on --define cores=64 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base --output_format all --nopower --runmode
rate --tune base --size refrate fprate --nopreenv --note-preenv --logfile
$SPEC/tmp/CPUSPEC.072/templogs/preenv.fprate.072.0.log --lognum 072.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017-1.1.9-ic2023.0

6. /proc/cpuinfo
   model name : Intel(R) Xeon(R) Platinum 8444H
   vendor_id : GenuineIntel
   cpu family : 6
   model : 143
   stepping : 8
   microcode : 0x2b0001b0
   bugs : spectre_v1 spectre_v2 spec_store_bypass swapgs
cpu cores : 16
   siblings : 32
   4 physical ids (chips)
   128 processors (hardware threads)
   physical id 0: core ids 0-15
   physical id 1: core ids 0-15
   physical id 2: core ids 0-15
   physical id 3: core ids 0-15
   physical id 0: apicids 0-31
   physical id 1: apicids 128-159

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Lenovo Global Technology

ThinkSystem SR860 V3
(2.90 GHz, Intel Xeon Platinum 8444H)

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CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

Test Date: Aug-2023
Hardware Availability: Jun-2023
Software Availability: Dec-2022

Platform Notes (Continued)

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
CPU op-mode(s): 32-bit, 64-bit
Address sizes: 46 bits physical, 57 bits virtual
Byte Order: Little Endian
CPU(s): 128
On-Line CPU(s) list: 0-127
Vendor ID: GenuineIntel
Model name: Intel(R) Xeon(R) Platinum 8444H
CPU family: 6
Model: 143
Thread(s) per core: 2
Core(s) per socket: 16
Socket(s): 4
Stepping: 8
BogoMIPS: 5800.00
Flags: fpu vme de pse 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 dacll
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 cpd_13 invpcid_single
intel_pni cpd_12 ssbd mba ibrs ibpb ibrs_enhanced tpr_shadow vnmi
flexpriority ept vpid ept_ad fsgil_base tsc_adjust bts mmipi hle avx2 smep bmi2
erms invpcid rtm cqm rdt_a avx512f avx512d rzseed adx smap avx512ifma
clflushopt clwb intel_pt avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec
xgetbv1 xsavec cqm_llc cqm_occup llc cqm_msb_total cqm_msb_local
split_lock_detect avx_vnni avx512_bf16 wbinvd dtherm ida arat pin pts
avx512vbmi umip puck ospe waitpkg avx512_vbmi2 gfini vaes vpc1mulqdq
avx512_vnni avx512_volatile tme avx512_vpopcntdq lss7 rdpid bus_lock_detect
cidemote movdir_i movdir64b enqcmd fsar mclear serialize tsxldtrk pconf
igl arch_lbr avx512_fp16 amx_tile flush_lld 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: 180 MiB (4 instances)
NUMA node(s): 16
NUMA node0 CPU(s): 0-3, 64-67
NUMA node1 CPU(s): 4-7, 68-71
NUMA node2 CPU(s): 8-11, 72-75
NUMA node3 CPU(s): 12-15, 76-79
NUMA node4 CPU(s): 16-19, 80-83
NUMA node5 CPU(s): 20-23, 84-87
NUMA node6 CPU(s): 24-27, 88-91
NUMA node7 CPU(s): 28-31, 92-95
NUMA node8 CPU(s): 32-35, 96-99
NUMA node9 CPU(s): 36-39, 100-103
NUMA node10 CPU(s): 40-43, 104-107
NUMA node11 CPU(s): 44-47, 108-111
NUMA node12 CPU(s): 48-51, 112-115

(Continued on next page)
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SPECrate®2017_fp_base = 906
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CPU2017 License: 9017
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**Platform Notes (Continued)**

NUMA node13 CPU(s): 52-55,116-119
NUMA node14 CPU(s): 56-59,120-123
NUMA node15 CPU(s): 60-63,124-127
Vulnerability Itlb multihit: Not affected
Vulnerability L1tf: Not affected
Vulnerability Mds: Not affected
Vulnerability Meltdown: 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
Vulnerability Srbds: Not affected
Vulnerability Tsx async abort: Not affected

From lscpu --cache:

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## Lenovo Global Technology

**ThinkSystem SR860 V3**

- **CPU2017 License:** 9017
- **Test Date:** Aug-2023
- **Test Sponsor:** Lenovo Global Technology
- **Hardware Availability:** Jun-2023
- **Tested by:** Lenovo Global Technology
- **Software Availability:** Dec-2022

### Platform Notes (Continued)

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</table>

9. /proc/meminfo
   MemTotal: 1056498924 kB

10. who -r
    run-level 3 Aug 17 01:43

11. Systemd service manager version: systemd 249 (249.11+suse.124.g2bc0b2c447)

**Default Target** multi-user

**Status** running

12. Services, from systemctl list-unit-files

<table>
<thead>
<tr>
<th>STATE</th>
<th>UNIT FILES</th>
</tr>
</thead>
<tbody>
<tr>
<td>enabled</td>
<td>YaST2-Firstboot YaST2-Second-Stage apparmor auditd cron getty@ havedeg irqbalance issue-generator kbdsettings lvm2-monitor nsd postfix purge-kernels rollback rsyslog smartd sshd wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny</td>
</tr>
<tr>
<td>enabled-runtime</td>
<td>systemd-remount-fs</td>
</tr>
<tr>
<td>indirect</td>
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(Continued on next page)
Lenovo Global Technology
ThinkSystem SR860 V3
(2.90 GHz, Intel Xeon Platinum 8444H)

CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

SPECrat®2017_fp_base = 906
SPECrat®2017_fp_peak = Not Run

Test Date: Aug-2023
Hardware Availability: Jun-2023
Software Availability: Dec-2022

Platform Notes (Continued)

13. Linux kernel boot-time arguments, from /proc/cmdline
   ROOT_IMAGE=/boot/vmlinuz-5.14.21-150400.22-default
   root=UUID=07b494b8-a782-4eba-84f2-ef5caee79da8
   splash=silent
   mitigations=auto
   quiet
   security=apparmor

------------------------------------------------------------
14. cpupower frequency-info
   analyzing CPU 0:
   Unable to determine current policy
   boost state support:
   Supported: yes
   Active: yes

------------------------------------------------------------
15. sysctl
   kernel.numa_balancing 1
   kernel.randomize_va_space 2
   vm.compaction_proactive 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+advise [advise] never
   enabled [always] advise 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 SP4

(Continued on next page)
Lenovo Global Technology

ThinkSystem SR860 V3
(2.90 GHz, Intel Xeon Platinum 8444H)

<table>
<thead>
<tr>
<th>SPECrate®2017_fp_base =</th>
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<tbody>
<tr>
<td>SPECrate®2017_fp_peak =</td>
<td>Not Run</td>
</tr>
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</table>

CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

Platform Notes (Continued)

19. Disk information
SPEC is set to: /home/cpu2017-1.1.9-ic2023.0
Filesystem    Type    Size    Used    Avail    Use%    Mounted on
/dev/sda3      xfs  445G   12G  433G    3%    /

20. /sys/devices/virtual/dmi/id
Vendor: Lenovo
Product: ThinkSystem SR860 V3
Product Family: ThinkSystem
Serial: None

21. dmidecode
Additional information from dmidecode 3.2 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:
19x Samsung M321R4GA3BB0-CQKDG 32 GB 2 rank 4800
6x Samsung M321R4GA3BB0-CQKEG 32 GB 2 rank 4800
4x Samsung M321R4GA3BB0-CQKMG 32 GB 2 rank 4800
3x Samsung M321R4GA3BB0-CQKVG 32 GB 2 rank 4800

22. BIOS
(BThis section combines info from /sys/devices and dmidecode.)
BIOS Vendor: Lenovo
BIOS Version: RSE105E-1.10
BIOS Date: 05/12/2023
BIOS Revision: 1.10
Firmware Revision: 1.10

Compiler Version Notes

<table>
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<tr>
<th>C</th>
<th></th>
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<tbody>
<tr>
<td>519.lbm_r(base)</td>
<td>538.imagick_r(base) 544.nab_r(base)</td>
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

<table>
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<th>C++</th>
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<tbody>
<tr>
<td>508.namd_r(base)</td>
<td>510.parest_r(base)</td>
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
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<table>
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<td>511.povray_r(base)</td>
<td>526.blender_r(base)</td>
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
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(Continued on next page)
**Lenovo Global Technology**

ThinkSystem SR860 V3
(2.90 GHz, Intel Xeon Platinum 8444H)

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<th>Test Date: Aug-2023</th>
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<td>Hardware Availability: Jun-2023</td>
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<tr>
<td>Tested by: Lenovo Global Technology</td>
<td>Software Availability: Dec-2022</td>
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**Compiler Version Notes (Continued)**

```
compilers
C++, C, Fortran | 507.caCTuBSSN_r(base)
-----------------------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
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Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
-----------------------------------------------------------------------------------------------
Fortran         | 503.bwaves_r(base) 549.fotonik3d_r(base) 554.roms_r(base)
-----------------------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
-----------------------------------------------------------------------------------------------
Fortran, C      | 521.wrf_r(base) 527.cam4_r(base)
-----------------------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
```

**Base Compiler Invocation**

C benchmarks:
```
icx
```

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

Fortran benchmarks:
```
ifx
```

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

Benchmarks using both C and C++:
```
icpx icx
```

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

---

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Lenovo Global Technology
ThinkSystem SR860 V3
(2.90 GHz, Intel Xeon Platinum 8444H)

SPECrates
- SPEC 2017 fp_base = 906
- SPEC 2017 fp_peak = Not Run

CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Test Date: Aug-2023

Tested by: Lenovo Global Technology
Hardware Availability: Jun-2023
Software Availability: Dec-2022

Base Portability Flags

503.bwaves_r: -DSPEC_LP64
507.cactuBSSN_r: -DSPEC_LP64
508.namd_r: -DSPEC_LP64
510.parest_r: -DSPEC_LP64
511.povray_r: -DSPEC_LP64
519.ibm_r: -DSPEC_LP64
521.wrf_r: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
526.blender_r: -DSPEC_LP64 -DSPEC_CASE_FLAG
527.cam4_r: -DSPEC_LP64 -DSPEC_CASE_FLAG
538.imagick_r: -DSPEC_LP64
544.nab_r: -DSPEC_LP64
549.fotonik3d_r: -DSPEC_LP64
554.roms_r: -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` -`-Wno-implicit-int` -`-mprefer-vector-width=512` -`-ljemalloc` -`-L/usr/local/jemalloc64-5.0.1/lib`

C++ benchmarks:
- `w` -`std=c++14` -`-m64` -`-Wl,-z,muldefs` -`-xsapphirerapids` -`-Ofast` -`-ffast-math` -`-flto` -`-mfpmath=sse` -`-funroll-loops` -`-qopt-mem-layout-trans=4` -`-mprefer-vector-width=512` -`-ljemalloc` -`-L/usr/local/jemalloc64-5.0.1/lib`

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

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` -`-Wno-implicit-int` -`-mprefer-vector-width=512` -`-nostandard-realloc-lhs` -`-align array32byte` -`-auto` -`-ljemalloc` -`-L/usr/local/jemalloc64-5.0.1/lib`

Benchmarks using both 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` -`-Wno-implicit-int` -`-mprefer-vector-width=512`
Lenovo Global Technology

ThinkSystem SR860 V3
(2.90 GHz, Intel Xeon Platinum 8444H)

SPECrate®2017_fp_base = 906
SPECrate®2017_fp_peak = Not Run

CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

Test Date: Aug-2023
Hardware Availability: Jun-2023
Software Availability: Dec-2022

Base Optimization Flags (Continued)

Benchmarks using both C and C++ (continued):
-ljemalloc -L/usr/local/jemalloc64-5.0.1/lib

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

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-Eaglestream-X.html
http://www.spec.org/cpu2017/flags/Intel-ic2023-official-linux64.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-Eaglestream-X.xml
http://www.spec.org/cpu2017/flags/Intel-ic2023-official-linux64.xml

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