



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR630 V3  
(2.90 GHz, Intel Xeon Gold 6542Y)

SPECspeed®2017\_int\_base = 14.8

SPECspeed®2017\_int\_peak = Not Run

CPU2017 License: 9017

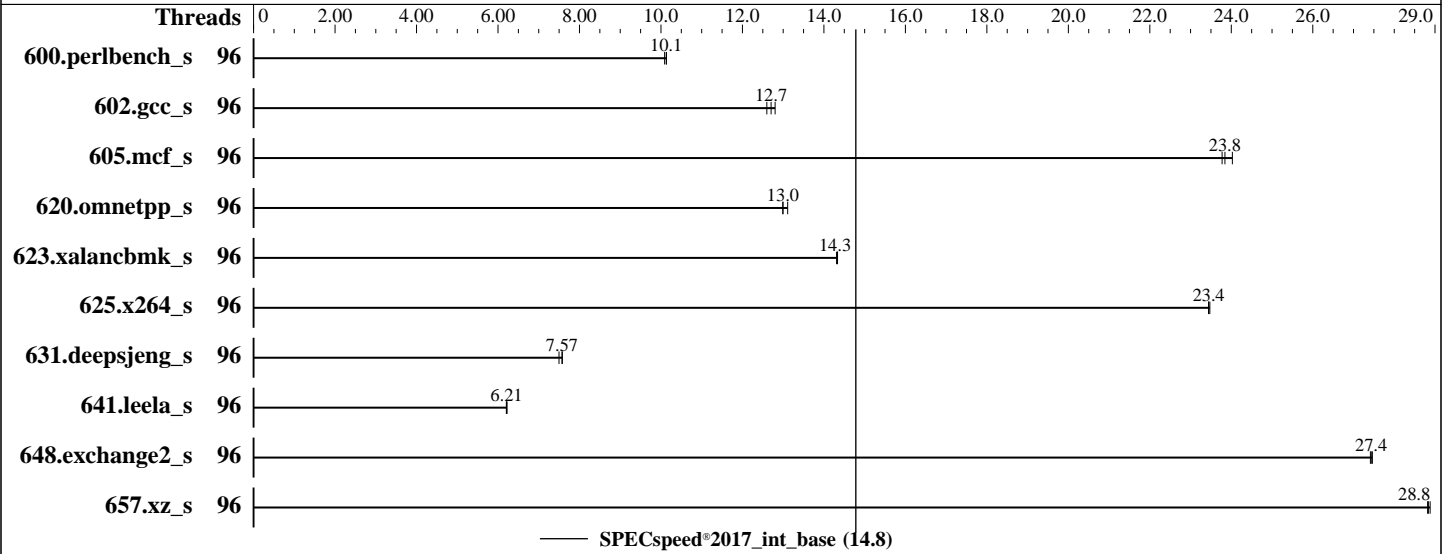
Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Nov-2023

Hardware Availability: Feb-2024

Software Availability: Dec-2023



### Hardware

CPU Name: Intel Xeon Gold 6542Y  
 Max MHz: 4100  
 Nominal: 2900  
 Enabled: 48 cores, 2 chips, 2 threads/core  
 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: 60 MB I+D on chip per chip  
 Other: None  
 Memory: 1 TB (16 x 64 GB 2Rx4 PC5-5600B-R,running at 5200)  
 Storage: 1 x 960 GB SATA SSD  
 Other: None

### Software

OS: SUSE Linux Enterprise Server 15 SP4  
 Kernel 5.14.21-150400.22-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: Lenovo BIOS Version ESE121P 3.10 released Oct-2023  
 File System: xfs  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: Not Applicable  
 Other: jemalloc memory allocator V5.0.1  
 Power Management: BIOS and OS set to prefer performance at the cost of additional power usage



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR630 V3  
(2.90 GHz, Intel Xeon Gold 6542Y)

SPECspeed®2017\_int\_base = 14.8

SPECspeed®2017\_int\_peak = Not Run

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

**Test Date:** Nov-2023  
**Hardware Availability:** Feb-2024  
**Software Availability:** Dec-2023

## Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	96	175	10.1	176	10.1	<u>175</u>	<u>10.1</u>							
602.gcc_s	96	316	12.6	311	12.8	<u>313</u>	<u>12.7</u>							
605.mcf_s	96	196	24.0	<u>198</u>	<u>23.8</u>	199	23.8							
620.omnetpp_s	96	126	13.0	<u>125</u>	<u>13.0</u>	124	13.1							
623.xalancbmk_s	96	<u>98.9</u>	<u>14.3</u>	99.0	14.3	98.9	14.3							
625.x264_s	96	<u>75.2</u>	<u>23.4</u>	75.3	23.4	75.2	23.5							
631.deepsjeng_s	96	191	7.50	<u>189</u>	<u>7.57</u>	189	7.58							
641.leela_s	96	275	6.20	274	6.22	<u>275</u>	<u>6.21</u>							
648.exchange2_s	96	107	27.5	<u>107</u>	<u>27.4</u>	107	27.4							
657.xz_s	96	215	28.8	<u>214</u>	<u>28.8</u>	214	28.9							

SPECspeed®2017\_int\_base = 14.8

SPECspeed®2017\_int\_peak = Not Run

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/cpu2017-1.1.9-ic2023.2.3/lib/intel164:/home/cpu2017-1.1.9-ic2023.2.3/lib/ia32:/home/cpu2017-1.1.9-ic2023.2.3/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>



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Lenovo Global Technology

SPECspeed®2017\_int\_base = 14.8

ThinkSystem SR630 V3  
(2.90 GHz, Intel Xeon Gold 6542Y)

SPECspeed®2017\_int\_peak = Not Run

**CPU2017 License:** 9017

**Test Date:** Nov-2023

**Test Sponsor:** Lenovo Global Technology

**Hardware Availability:** Feb-2024

**Tested by:** Lenovo Global Technology

**Software Availability:** Dec-2023

## 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

C-States set to Legacy

```
Sysinfo program /home/cpu2017-1.1.9-ic2023.2.3/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on localhost Sun Nov 26 17:04:44 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 (249.11+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
17:04:44 up 1 min, 1 user, load average: 0.27, 0.18, 0.07
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
root tty1 - 17:04 8.00s 2.20s 0.02s -bash
```

```
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) 4126982
```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR630 V3  
(2.90 GHz, Intel Xeon Gold 6542Y)

SPECspeed®2017\_int\_base = 14.8

SPECspeed®2017\_int\_peak = Not Run

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

**Test Date:** Nov-2023  
**Hardware Availability:** Feb-2024  
**Software Availability:** Dec-2023

### Platform Notes (Continued)

```

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) 4126982
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-sapphirerapids-speed-20231121.cfg --define cores=48 --tune base -o all --define
  intspeedaffinity --define smt-on --define drop_caches intspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
  ic2023.2.3-lin-sapphirerapids-speed-20231121.cfg --define cores=48 --tune base --output_format all
  --define intspeedaffinity --define smt-on --define drop_caches --nopower --runmode speed --tune base
  --size refspeed intspeed --nopreenv --note-preenv --logfile
  $SPEC/tmp/CPU2017.010/temlogs/preenv.intspeed.010.0.log --lognum 010.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017-1.1.9-ic2023.2.3

```

#### 6. /proc/cpuinfo

```

model name      : INTEL(R) XEON(R) GOLD 6542Y
vendor_id      : GenuineIntel
cpu family     : 6
model          : 207
stepping       : 2
microcode      : 0x21000190
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs
cpu cores      : 24
siblings       : 48
2 physical ids (chips)
96 processors (hardware threads)
physical id 0: core ids 0-23
physical id 1: core ids 0-23
physical id 0: apicids 0-47
physical id 1: apicids 128-175

```

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):                96
On-line CPU(s) list:   0-95
Vendor ID:              GenuineIntel

```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Lenovo Global Technology

SPECspeed®2017\_int\_base = 14.8

ThinkSystem SR630 V3  
(2.90 GHz, Intel Xeon Gold 6542Y)

SPECspeed®2017\_int\_peak = Not Run

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

**Test Date:** Nov-2023  
**Hardware Availability:** Feb-2024  
**Software Availability:** Dec-2023

### Platform Notes (Continued)

```

Model name:                INTEL(R) XEON(R) GOLD 6542Y
CPU family:                6
Model:                    207
Thread(s) per core:      2
Core(s) per socket:     24
Socket(s):                2
Stepping:                 2
BogoMIPS:                 5800.00
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 aperfperf 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_lld arch_capabilities

Virtualization:          VT-x
L1d cache:               2.3 MiB (48 instances)
L1i cache:               1.5 MiB (48 instances)
L2 cache:                96 MiB (48 instances)
L3 cache:                120 MiB (2 instances)
NUMA node(s):            2
NUMA node0 CPU(s):      0-23,48-71
NUMA node1 CPU(s):      24-47,72-95
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/swaps 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:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	2.3M	12	Data	1	64	1	64
L1i	32K	1.5M	8	Instruction	1	64	1	64
L2	2M	96M	16	Unified	2	2048	1	64
L3	60M	120M	15	Unified	3	65536	1	64

8. numactl --hardware

NOTE: a numactl 'node' might or might not correspond to a physical chip.

```

available: 2 nodes (0-1)
node 0 cpus: 0-23,48-71
node 0 size: 515714 MB
node 0 free: 514195 MB
node 1 cpus: 24-47,72-95
node 1 size: 516054 MB
node 1 free: 515380 MB

```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR630 V3  
(2.90 GHz, Intel Xeon Gold 6542Y)

SPECspeed®2017\_int\_base = 14.8

SPECspeed®2017\_int\_peak = Not Run

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Nov-2023

Hardware Availability: Feb-2024

Software Availability: Dec-2023

### Platform Notes (Continued)

node distances:

```

node    0    1
0:    10   21
1:    21   10

```

```

9. /proc/meminfo
   MemTotal:    1056531700 kB

```

```

10. who -r
    run-level 3 Nov 26 17:03

```

```

11. Systemd service manager version: systemd 249 (249.11+suse.124.g2bc0b2c447)
    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 getty@ haveged irqbalance
                       issue-generator kbdsettings klog lvm2-monitor nscd postfix purge-kernels rollback rsyslog
                       smartd sshd 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 ebttables exchange-bmc-os-info
                       firewallld gpm grub2-once haveged-switch-root ipmi ipmievd issue-add-ssh-keys kexec-load
                       lunmask man-db-create multipathd nfs nfs-blkmap rdisc 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
    indirect           wickedd

```

```

13. Linux kernel boot-time arguments, from /proc/cmdline
    BOOT_IMAGE=/boot/vmlinuz-5.14.21-150400.22-default
    root=UUID=efe3d3bb-d17b-48bc-af3c-7ee429916327
    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_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

```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Lenovo Global Technology

SPECspeed®2017\_int\_base = 14.8

ThinkSystem SR630 V3  
(2.90 GHz, Intel Xeon Gold 6542Y)

SPECspeed®2017\_int\_peak = Not Run

CPU2017 License: 9017

Test Date: Nov-2023

Test Sponsor: Lenovo Global Technology

Hardware Availability: Feb-2024

Tested by: Lenovo Global Technology

Software Availability: Dec-2023

### Platform Notes (Continued)

```

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+madvice [madvice] never
enabled         [always] madvice 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

```

```

-----
19. Disk information
SPEC is set to: /home/cpu2017-1.1.9-ic2023.2.3
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda2       xfs   894G  141G  754G  16% /

```

```

-----
20. /sys/devices/virtual/dmi/id
Vendor:         Lenovo
Product:        ThinkSystem SR630 V3 MB,EGS,DDR5,NY,1U
Product Family: ThinkSystem
Serial:         1234567890

```

```

-----
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:
  13x Samsung M321R8GA0PB0-CWMKH 64 GB 2 rank 5600, configured at 5200
  3x Samsung M321R8GA0PB0-CWMXH 64 GB 2 rank 5600, configured at 5200

```

22. BIOS

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR630 V3  
(2.90 GHz, Intel Xeon Gold 6542Y)

SPECspeed®2017\_int\_base = 14.8

SPECspeed®2017\_int\_peak = Not Run

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

**Test Date:** Nov-2023  
**Hardware Availability:** Feb-2024  
**Software Availability:** Dec-2023

### Platform Notes (Continued)

(This section combines info from /sys/devices and dmidecode.)

BIOS Vendor: Lenovo  
BIOS Version: ESE121P-3.10  
BIOS Date: 10/27/2023  
BIOS Revision: 3.10  
Firmware Revision: 3.90

### Compiler Version Notes

=====  
C | 600.perlbench\_s(base) 602.gcc\_s(base) 605.mcf\_s(base) 625.x264\_s(base) 657.xz\_s(base)  
=====

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) 623.xalancbmk\_s(base) 631.deepsjeng\_s(base) 641.leela\_s(base)  
=====

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)  
=====

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

### 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

(Continued on next page)





# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Lenovo Global Technology

ThinkSystem SR630 V3  
(2.90 GHz, Intel Xeon Gold 6542Y)

SPECspeed®2017\_int\_base = 14.8

SPECspeed®2017\_int\_peak = Not Run

**CPU2017 License:** 9017

**Test Sponsor:** Lenovo Global Technology

**Tested by:** Lenovo Global Technology

**Test Date:** Nov-2023

**Hardware Availability:** Feb-2024

**Software Availability:** Dec-2023

## Base Portability Flags (Continued)

```
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 -xsapphirerapids -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 -xsapphirerapids -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 -xsapphirerapids -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
```

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-AA.html>

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

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

SPEC CPU and SPECspeed are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester. For other inquiries, please contact [info@spec.org](mailto:info@spec.org).

Tested with SPEC CPU®2017 v1.1.9 on 2023-11-26 04:04:43-0500.

Report generated on 2024-01-03 16:17:10 by CPU2017 PDF formatter v6716.

Originally published on 2023-12-14.