



# SPEC CPU®2017 Floating Point Rate Result

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## Lenovo Global Technology

(Test Sponsor: Lenovo Global Technology)

ThinkSystem SR630 V3

(1.90 GHz, Intel Xeon Platinum 8490H)

SPECrate®2017\_fp\_base = 932

SPECrate®2017\_fp\_peak = 943

CPU2017 License: 9017

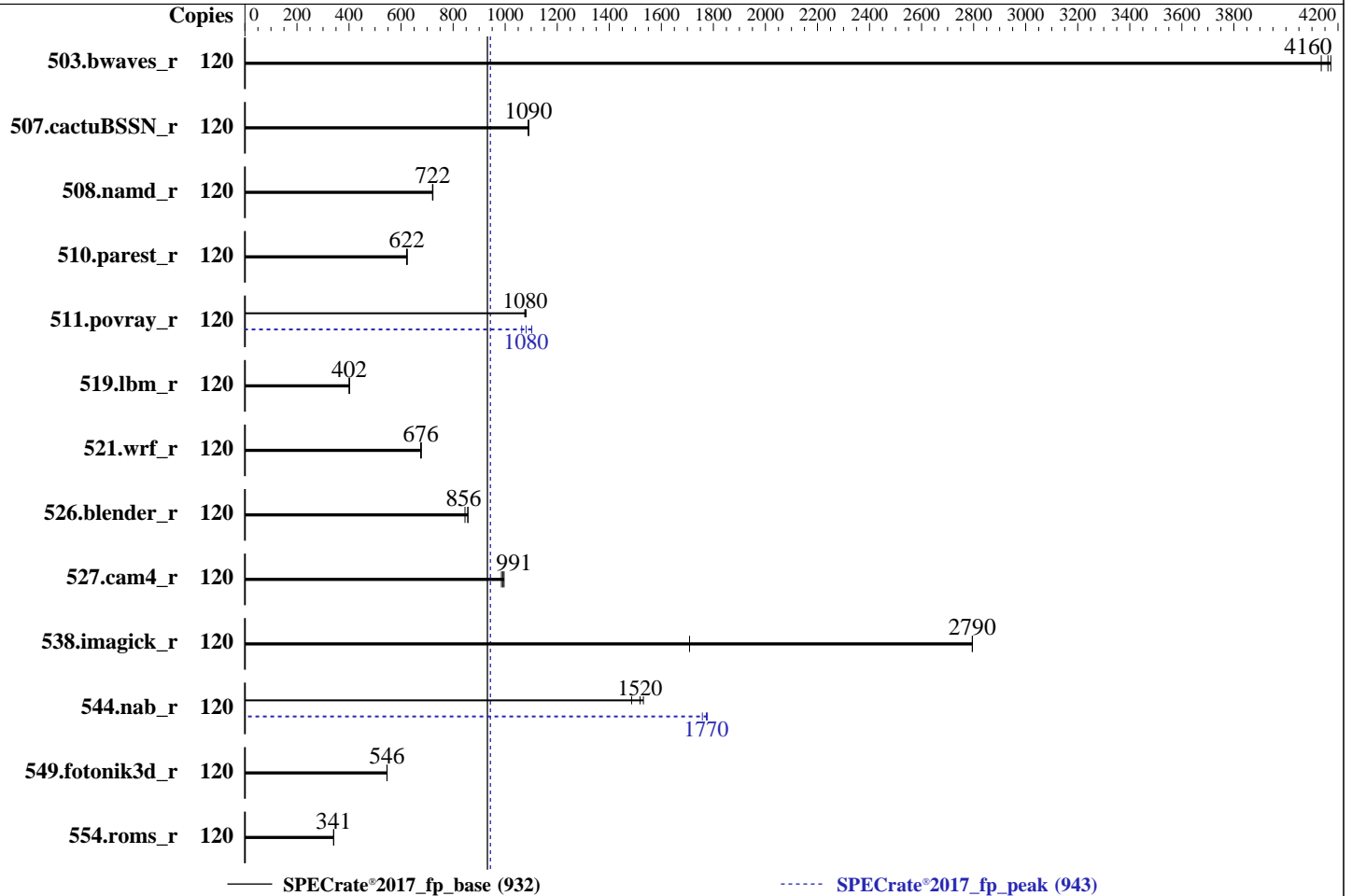
Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Dec-2022

Hardware Availability: Feb-2023

Software Availability: Jun-2022



### Hardware

CPU Name: Intel Xeon Platinum 8490H  
 Max MHz: 3500  
 Nominal: 1900  
 Enabled: 120 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: 112.5 MB I+D on chip per chip  
 Other: None  
 Memory: 512 GB (16 x 32 GB 2Rx8 PC5-4800B-R)  
 Storage: 1 x 960 GB SATA SSD  
 Other: None

### Software

OS: SUSE Linux Enterprise Server 15 SP4 (x86\_64)  
 Kernel 5.14.21-150400.22-default  
 Compiler: C/C++: Version 2022.1 of Intel oneAPI DPC++/C++ Compiler for Linux;  
 Fortran: Version 2022.1 of Intel Fortran Compiler for Linux;  
 Parallel: No  
 Firmware: Lenovo BIOS Version ESE109C 0.79 released Nov-2022  
 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						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
503.bwaves_r	120	288	4170	291	4140	<u>289</u>	<u>4160</u>	120	288	4170	291	4140	<u>289</u>	<u>4160</u>
507.cactuBSSN_r	120	140	1090	139	1090	<u>139</u>	<u>1090</u>	120	140	1090	139	1090	<u>139</u>	<u>1090</u>
508.namd_r	120	<u>158</u>	<u>722</u>	158	722	158	721	120	<u>158</u>	<u>722</u>	158	722	158	721
510.parest_r	120	505	621	<u>505</u>	<u>622</u>	503	624	120	505	621	<u>505</u>	<u>622</u>	503	624
511.povray_r	120	259	1080	260	1080	<u>260</u>	<u>1080</u>	120	263	1060	254	1100	<u>259</u>	<u>1080</u>
519.lbm_r	120	<u>315</u>	<u>402</u>	315	402	316	400	120	<u>315</u>	<u>402</u>	315	402	316	400
521.wrf_r	120	<u>398</u>	<u>676</u>	397	678	398	676	120	<u>398</u>	<u>676</u>	397	678	398	676
526.blender_r	120	<u>213</u>	<u>856</u>	216	846	213	857	120	<u>213</u>	<u>856</u>	216	846	213	857
527.cam4_r	120	<u>212</u>	<u>991</u>	213	986	211	996	120	<u>212</u>	<u>991</u>	213	986	211	996
538.imagick_r	120	175	1710	<u>107</u>	<u>2790</u>	107	2800	120	175	1710	<u>107</u>	<u>2790</u>	107	2800
544.nab_r	120	136	1490	<u>133</u>	<u>1520</u>	132	1530	120	114	1780	115	1760	<u>114</u>	<u>1770</u>
549.fotonik3d_r	120	<u>857</u>	<u>546</u>	857	546	856	546	120	<u>857</u>	<u>546</u>	857	546	856	546
554.roms_r	120	558	341	560	341	<u>559</u>	<u>341</u>	120	558	341	560	341	<u>559</u>	<u>341</u>

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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/cpu2017-1.1.8-ic2022.1/lib/intel64:/home/cpu2017-1.1.8-ic2022.1/j  
e5.0.1-64"

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

(Continued on next page)



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## General Notes (Continued)

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.  
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>

## Platform Notes

BIOS configuration:  
Choose Operating Mode set to Maximum Performance and then set it to Custom Mode  
Hyper-Threading set to Disabled  
SNC set to SNC4  
XPT Prefetcher set to Disabled  
LLC Prefetch set to Disabled

Sysinfo program /home/cpu2017-1.1.8-ic2022.1/bin/sysinfo  
Rev: r6622 of 2021-04-07 982a61ec0915b55891ef0e16acafc64d  
running on test1 Fri Dec 2 18:49:19 2022

SUT (System Under Test) info as seen by some common utilities.  
For more information on this section, see  
<https://www.spec.org/cpu2017/Docs/config.html#sysinfo>

From /proc/cpuinfo  
model name : Intel(R) Xeon(R) Platinum 8490H  
2 "physical id"s (chips)  
120 "processors"  
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)  
cpu cores : 60  
siblings : 60  
physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  
25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52  
53 54 55 56 57 58 59  
physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  
25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52  
53 54 55 56 57 58 59

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## Platform Notes (Continued)

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):                120
On-line CPU(s) list:   0-119
Vendor ID:             GenuineIntel
Model name:            Intel(R) Xeon(R) Platinum 8490H
CPU family:            6
Model:                 143
Thread(s) per core:    1
Core(s) per socket:    60
Socket(s):              2
Stepping:              6
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
pdpelgb 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 intel_ppin 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
split_lock_detect 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:             5.6 MiB (120 instances)
L1i cache:             3.8 MiB (120 instances)
L2 cache:              240 MiB (120 instances)
L3 cache:              225 MiB (2 instances)
NUMA node(s):          8
NUMA node0 CPU(s):    0-14
NUMA node1 CPU(s):    15-29
NUMA node2 CPU(s):    30-44
NUMA node3 CPU(s):    45-59
NUMA node4 CPU(s):    60-74
NUMA node5 CPU(s):    75-89
NUMA node6 CPU(s):    90-104
NUMA node7 CPU(s):    105-119

```

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## Platform Notes (Continued)

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:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	5.6M	12	Data	1	64	1	64
L1i	32K	3.8M	8	Instruction	1	64	1	64
L2	2M	240M	16	Unified	2	2048	1	64
L3	112.5M	225M	15	Unified	3	122880	1	64

/proc/cpuinfo cache data  
cache size : 115200 KB

From numactl --hardware

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

available: 8 nodes (0-7)  
 node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
 node 0 size: 64171 MB  
 node 0 free: 63508 MB  
 node 1 cpus: 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29  
 node 1 size: 64508 MB  
 node 1 free: 64249 MB  
 node 2 cpus: 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44  
 node 2 size: 64508 MB  
 node 2 free: 64270 MB  
 node 3 cpus: 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59  
 node 3 size: 64473 MB  
 node 3 free: 64266 MB  
 node 4 cpus: 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74  
 node 4 size: 64508 MB  
 node 4 free: 64240 MB  
 node 5 cpus: 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89  
 node 5 size: 64508 MB  
 node 5 free: 64298 MB  
 node 6 cpus: 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104  
 node 6 size: 64508 MB  
 node 6 free: 64283 MB

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## Platform Notes (Continued)

node 7 cpus: 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119

node 7 size: 64479 MB

node 7 free: 64262 MB

node distances:

node	0	1	2	3	4	5	6	7
0:	10	12	12	12	21	21	21	21
1:	12	10	12	12	21	21	21	21
2:	12	12	10	12	21	21	21	21
3:	12	12	12	10	21	21	21	21
4:	21	21	21	21	10	12	12	12
5:	21	21	21	21	12	10	12	12
6:	21	21	21	21	12	12	10	12
7:	21	21	21	21	12	12	12	10

From /proc/meminfo

MemTotal: 528041344 kB

HugePages\_Total: 0

Hugepagesize: 2048 kB

From /etc/\*release\* /etc/\*version\*

os-release:

NAME="SLES"

VERSION="15-SP4"

VERSION\_ID="15.4"

PRETTY\_NAME="SUSE Linux Enterprise Server 15 SP4"

ID="sles"

ID\_LIKE="suse"

ANSI\_COLOR="0;32"

CPE\_NAME="cpe:/o:suse:sles:15:sp4"

uname -a:

Linux test1 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

Kernel self-reported vulnerability status:

CVE-2018-12207 (iTLB Multihit):	Not affected
CVE-2018-3620 (L1 Terminal Fault):	Not affected
Microarchitectural Data Sampling:	Not affected
CVE-2017-5754 (Meltdown):	Not affected
CVE-2018-3639 (Speculative Store Bypass):	Mitigation: Speculative Store Bypass disabled via prctl and seccomp
CVE-2017-5753 (Spectre variant 1):	Mitigation: usercopy/swaps barriers and __user pointer sanitization
CVE-2017-5715 (Spectre variant 2):	Mitigation: Enhanced IBRS, IBPB:

(Continued on next page)



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## Platform Notes (Continued)

	conditional, RSB filling
CVE-2020-0543 (Special Register Buffer Data Sampling):	Not affected
CVE-2019-11135 (TSX Asynchronous Abort):	Not affected

run-level 3 Dec 2 18:48

SPEC is set to: /home/cpu2017-1.1.8-ic2022.1

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/sdb2	xfs	894G	49G	845G	6%	/

From /sys/devices/virtual/dmi/id

Vendor:	Lenovo
Product:	ThinkSystem SR630 V3
Product Family:	ThinkSystem
Serial:	1234567890

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: 16x Hynix HMC88AEBRA168N 32 GB 2 rank 4800

BIOS:

BIOS Vendor:	Lenovo
BIOS Version:	ESE109C-0.79
BIOS Date:	11/22/2022
BIOS Revision:	0.79
Firmware Revision:	0.72

(End of data from sysinfo program)

## Compiler Version Notes

```

=====
C          | 519.lbm_r(base, peak) 538.imagick_r(base, peak)
          | 544.nab_r(base, peak)
-----
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2022.1.0 Build 20220316
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.
-----

C++       | 508.namd_r(base, peak) 510.parest_r(base, peak)
-----

```

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Version 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

=====  
C++, C | 511.povray\_r(base, peak) 526.blender\_r(base, peak)  
=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,  
Version 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,  
Version 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

=====  
C++, C, Fortran | 507.cactuBSSN\_r(base, peak)  
=====

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,  
Version 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

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Version 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version  
2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

=====  
Fortran | 503.bwaves\_r(base, peak) 549.fotonik3d\_r(base, peak)  
| 554.roms\_r(base, peak)  
=====

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version  
2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

=====  
Fortran, C | 521.wrf\_r(base, peak) 527.cam4\_r(base, peak)  
=====

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version  
2022.1.0 Build 20220316  
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## Compiler Version Notes (Continued)

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## 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

## 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.lbm\_r: -DSPEC\_LP64

521.wrf\_r: -DSPEC\_LP64 -DSPEC\_CASE\_FLAG -convert big\_endian

526.blender\_r: -DSPEC\_LP64 -DSPEC\_LINUX -funsigned-char

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



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## 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 -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib
```

C++ benchmarks:

```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -ljemalloc
-L/usr/local/jemalloc64-5.0.1/lib
```

Fortran benchmarks:

```
-w -m64 -Wl,-z,muldefs -xCORE-AVX512 -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 -xCORE-AVX512 -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 C and C++:

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

Benchmarks using Fortran, C, and C++:

```
-w -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -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
```

## Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

(Continued on next page)



# SPEC CPU®2017 Floating Point Rate Result

Copyright 2017-2023 Standard Performance Evaluation Corporation

**Lenovo Global Technology**

(Test Sponsor: Lenovo Global Technology)

**ThinkSystem SR630 V3**

(1.90 GHz, Intel Xeon Platinum 8490H)

**SPECrate®2017\_fp\_base = 932**

**SPECrate®2017\_fp\_peak = 943**

**CPU2017 License:** 9017

**Test Sponsor:** Lenovo Global Technology

**Tested by:** Lenovo Global Technology

**Test Date:** Dec-2022

**Hardware Availability:** Feb-2023

**Software Availability:** Jun-2022

## Peak Compiler Invocation (Continued)

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

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

519.lbm\_r: basepeak = yes

538.imagick\_r: basepeak = yes

544.nab\_r: -w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast  
-ffast-math -flto -mfpmath=sse -funroll-loops  
-qopt-mem-layout-trans=4 -qopt-zmm-usage=high -ljemalloc  
-L/usr/local/jemalloc64-5.0.1/lib

C++ benchmarks:

508.namd\_r: basepeak = yes

510.parest\_r: basepeak = yes

Fortran benchmarks:

503.bwaves\_r: basepeak = yes

549.fotonik3d\_r: basepeak = yes

554.roms\_r: basepeak = yes

Benchmarks using both Fortran and C:

(Continued on next page)



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## Peak Optimization Flags (Continued)

521.wrf\_r: basepeak = yes

527.cam4\_r: basepeak = yes

Benchmarks using both C and C++:

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

526.blender\_r: basepeak = yes

Benchmarks using Fortran, C, and C++:

507.cactuBSSN\_r: basepeak = yes

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-N.html>

[http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64\\_revA.html](http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64_revA.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-N.xml>

[http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64\\_revA.xml](http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64_revA.xml)

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