



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

## Hewlett Packard Enterprise

(Test Sponsor: HPE)

### Superdome Flex 280

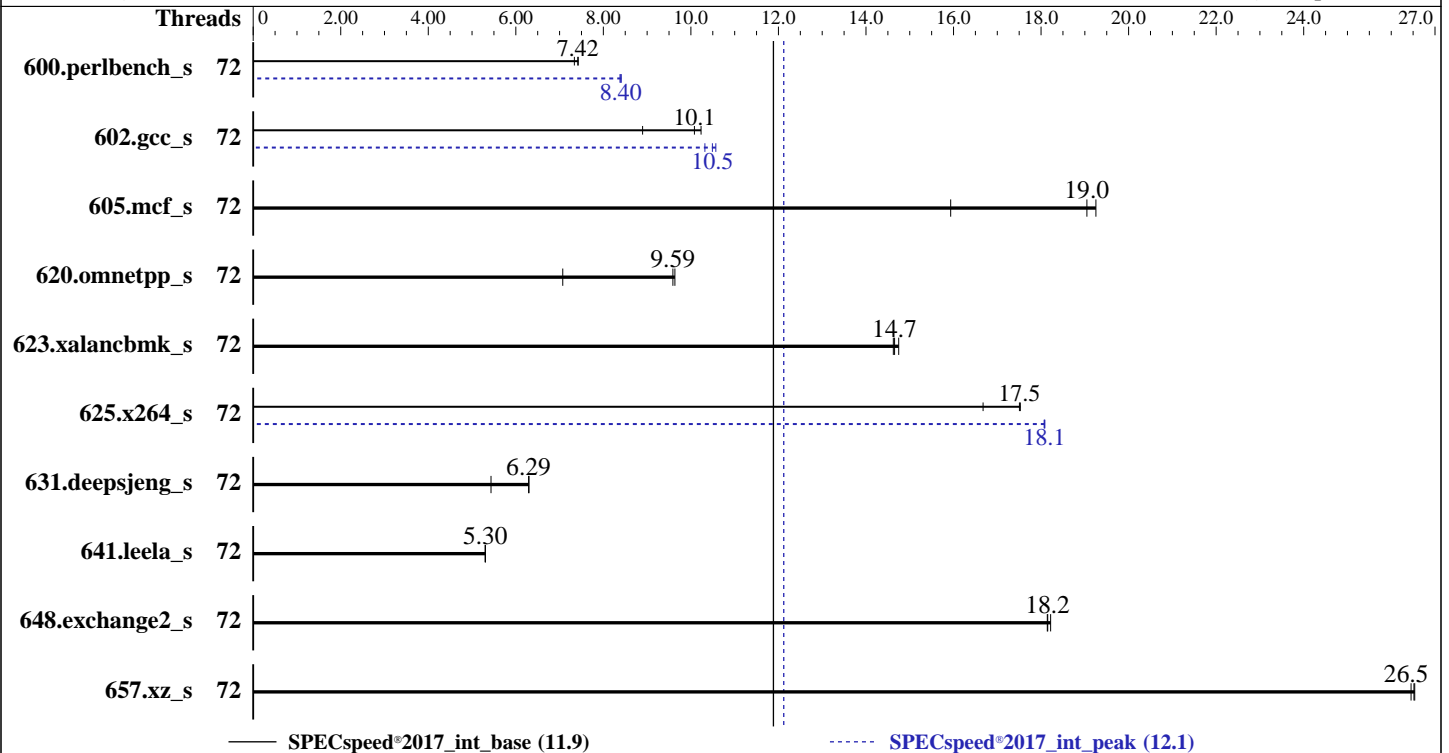
(3.10 GHz, Intel Xeon Platinum 8354H)

SPECspeed®2017\_int\_base = 11.9

SPECspeed®2017\_int\_peak = 12.1

CPU2017 License: 3  
Test Sponsor: HPE  
Tested by: HPE

Test Date: Nov-2020  
Hardware Availability: Nov-2020  
Software Availability: Apr-2020



### Hardware

CPU Name: Intel Xeon Platinum 8354H  
Max MHz: 4300  
Nominal: 3100  
Enabled: 72 cores, 4 chips  
Orderable: 2, 4, 8 chip(s)  
Cache L1: 32 KB I + 32 KB D on chip per core  
L2: 1 MB I+D on chip per core  
L3: 24.75 MB I+D on chip per chip  
Other: None  
Memory: 3 TB (24 x 128 GB 4Rx4 PC4-3200AA-L)  
Storage: 1 x 1 TB SATA HDD, 7.2K RPM  
Other: None

### Software

OS: Red Hat Enterprise Linux 8.2 (Ootpa)  
Kernel 4.18.0-193.el8.x86\_64  
Compiler: C/C++: Version 19.1.1.217 of Intel C/C++ Compiler Build 20200306 for Linux;  
Fortran: Version 19.1.1.217 of Intel Fortran Compiler Build 20200306 for Linux;  
Parallel: Yes  
Firmware: HPE Firmware Bundle Version 1.0.142 released Oct-2020  
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;  
HPE Foundation Software 2.4,  
Build 734.0820.200723T0100.a.rhel82hpe-200723T0100  
Power Management: BIOS set to prefer performance at the cost of additional power usage



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

Superdome Flex 280

(3.10 GHz, Intel Xeon Platinum 8354H)

SPECspeed®2017\_int\_base = 11.9

SPECspeed®2017\_int\_peak = 12.1

CPU2017 License: 3  
Test Sponsor: HPE  
Tested by: HPE

Test Date: Nov-2020  
Hardware Availability: Nov-2020  
Software Availability: Apr-2020

## Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	72	<b>239</b>	<b>7.42</b>	239	7.43	242	7.34	72	211	8.41	<b>211</b>	<b>8.40</b>	212	8.38
602.gcc_s	72	<b>395</b>	<b>10.1</b>	389	10.2	448	8.90	72	<b>380</b>	<b>10.5</b>	386	10.3	377	10.6
605.mcf_s	72	<b>248</b>	<b>19.0</b>	245	19.3	296	15.9	72	<b>248</b>	<b>19.0</b>	245	19.3	296	15.9
620.omnetpp_s	72	169	9.63	<b>170</b>	<b>9.59</b>	231	7.07	72	169	9.63	<b>170</b>	<b>9.59</b>	231	7.07
623.xalancbmk_s	72	96.1	14.7	<b>96.7</b>	<b>14.7</b>	96.9	14.6	72	96.1	14.7	<b>96.7</b>	<b>14.7</b>	96.9	14.6
625.x264_s	72	<b>101</b>	<b>17.5</b>	101	17.5	106	16.7	72	97.5	18.1	97.6	18.1	<b>97.6</b>	<b>18.1</b>
631.deepsjeng_s	72	<b>228</b>	<b>6.29</b>	227	6.30	264	5.43	72	<b>228</b>	<b>6.29</b>	227	6.30	264	5.43
641.leela_s	72	<b>322</b>	<b>5.30</b>	322	5.30	322	5.30	72	<b>322</b>	<b>5.30</b>	322	5.30	322	5.30
648.exchange2_s	72	161	18.2	<b>162</b>	<b>18.2</b>	162	18.1	72	161	18.2	<b>162</b>	<b>18.2</b>	162	18.1
657.xz_s	72	<b>233</b>	<b>26.5</b>	233	26.5	234	26.5	72	<b>233</b>	<b>26.5</b>	233	26.5	234	26.5

SPECspeed®2017\_int\_base = **11.9**

SPECspeed®2017\_int\_peak = **12.1**

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

## Compiler Notes

The inconsistent Compiler version information under Compiler Version section is due to a discrepancy in Intel Compiler. The correct version of C/C++ compiler is: Version 19.1.1.217 Build 20200306 Compiler for Linux  
The correct version of Fortran compiler is: Version 19.1.1.217 Build 20200306 Compiler for Linux

## Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"  
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  
Tuned-adm profile was set to Throughput-Performance using "tuned-adm profile throughput-performance"

HPE Foundation Software (HFS) is a collection of software packages designed to make the HPE Superdome Flex family of servers easier to use for customers. This software is compatible with RHEL, SLES, and Oracle Linux only. It is highly recommended all users install HFS for the Superdome Flex system. More details, and a revision history list, can be found at: [https://support.hpe.com/hpsc/swd/public/detail?swItemId=MTX\\_b48de5f6a8a041f0ae985825a5#tab-history](https://support.hpe.com/hpsc/swd/public/detail?swItemId=MTX_b48de5f6a8a041f0ae985825a5#tab-history)

## 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/je5.0.1-64"  
MALLOC\_CONF = "retain:true"  
OMP\_STACKSIZE = "192M"



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**Superdome Flex 280**

**(3.10 GHz, Intel Xeon Platinum 8354H)**

**SPECspeed®2017\_int\_base = 11.9**

**SPECspeed®2017\_int\_peak = 12.1**

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Nov-2020

**Hardware Availability:** Nov-2020

**Software Availability:** Apr-2020

## General Notes

Binaries compiled on a system with 1x Intel Core i9-7980XE CPU + 64GB 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.

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:

Workload Profile set to HPC

Intel Hyper-Threading set to Disabled

Workload Profile set to Custom

Minimum Processor Idle Power Core C-State set to C6 State

Minimum Processor Idle Power Package C-State set to Package C6 (non-retention) State

LLC Prefetch set to Enabled

Sysinfo program /home/cpu2017/bin/sysinfo

Rev: r6365 of 2019-08-21 295195f888a3d7edble6e46a485a0011

running on ch-620.fchst.rdlabs.hpccorp.net Mon Nov 23 19:28:36 2020

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 8354H CPU @ 3.10GHz

4 "physical id"s (chips)

72 "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 : 18

siblings : 18

physical 0: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27

physical 1: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27

physical 2: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27

physical 3: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27

From lscpu:

Architecture: x86\_64

CPU op-mode(s): 32-bit, 64-bit

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**Superdome Flex 280**

**(3.10 GHz, Intel Xeon Platinum 8354H)**

**SPECspeed®2017\_int\_base = 11.9**

**SPECspeed®2017\_int\_peak = 12.1**

**CPU2017 License:** 3  
**Test Sponsor:** HPE  
**Tested by:** HPE

**Test Date:** Nov-2020  
**Hardware Availability:** Nov-2020  
**Software Availability:** Apr-2020

## Platform Notes (Continued)

```

Byte Order:           Little Endian
CPU(s):               72
On-line CPU(s) list: 0-71
Thread(s) per core:  1
Core(s) per socket:  18
Socket(s):            4
NUMA node(s):        4
Vendor ID:            GenuineIntel
CPU family:           6
Model:                85
Model name:           Intel(R) Xeon(R) Platinum 8354H CPU @ 3.10GHz
Stepping:             11
CPU MHz:              3242.262
CPU max MHz:          4300.0000
CPU min MHz:          1000.0000
BogoMIPS:             6200.04
Virtualization:       VT-x
L1d cache:            32K
L1i cache:            32K
L2 cache:             1024K
L3 cache:             25344K
NUMA node0 CPU(s):   0-17
NUMA node1 CPU(s):   18-35
NUMA node2 CPU(s):   36-53
NUMA node3 CPU(s):   54-71
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
aperfmpperf 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 fl6c rdrand lahf_lm abm 3dnowprefetch cpuid_fault epb cat_l3 cdp_l3
invpcid_single intel_ppin ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vnmi
flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid rtm
cqm mpx rdt_a avx512f avx512dq rdseed adx smap clflushopt clwb intel_pt avx512cd
avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbm_total
cqm_mbm_local avx512_bf16 dtherm ida arat pln pts pku ospke avx512_vnni md_clear
flush_lld arch_capabilities

```

```
/proc/cpuinfo cache data
cache size : 25344 KB
```

```

From numactl --hardware WARNING: a numactl 'node' might or might not correspond to a
physical chip.
available: 4 nodes (0-3)
node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
node 0 size: 772594 MB
node 0 free: 771726 MB

```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**Superdome Flex 280**

**(3.10 GHz, Intel Xeon Platinum 8354H)**

**SPECspeed®2017\_int\_base = 11.9**

**SPECspeed®2017\_int\_peak = 12.1**

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Nov-2020

**Hardware Availability:** Nov-2020

**Software Availability:** Apr-2020

## Platform Notes (Continued)

```

node 1 cpus: 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35
node 1 size: 774139 MB
node 1 free: 773508 MB
node 2 cpus: 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53
node 2 size: 774139 MB
node 2 free: 773887 MB
node 3 cpus: 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71
node 3 size: 773619 MB
node 3 free: 773339 MB
node distances:
node  0  1  2  3
  0:  10  16  16  24
  1:  16  10  24  16
  2:  16  24  10  16
  3:  24  16  16  10

```

From /proc/meminfo

MemTotal: 3168760120 kB

HugePages\_Total: 0

Hugepagesize: 2048 kB

/usr/bin/lsb\_release -d

Red Hat Enterprise Linux release 8.2 (Ootpa)

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

hpe-foundation-release: HPE Foundation Software 2.4, Build

734.0820.200723T0100.a.rhel82hpe-200723T0100

os-release:

NAME="Red Hat Enterprise Linux"

VERSION="8.2 (Ootpa)"

ID="rhel"

ID\_LIKE="fedora"

VERSION\_ID="8.2"

PLATFORM\_ID="platform:el8"

PRETTY\_NAME="Red Hat Enterprise Linux 8.2 (Ootpa)"

ANSI\_COLOR="0;31"

redhat-release: Red Hat Enterprise Linux release 8.2 (Ootpa)

system-release: Red Hat Enterprise Linux release 8.2 (Ootpa)

system-release-cpe: cpe:/o:redhat:enterprise\_linux:8.2:ga

uname -a:

Linux ch-620.fchst.rdlabs.hpecorp.net 4.18.0-193.el8.x86\_64 #1 SMP Fri Mar 27 14:35:58

UTC 2020 x86\_64 x86\_64 x86\_64 GNU/Linux

Kernel self-reported vulnerability status:

itlb\_multihit: Not affected

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**Superdome Flex 280**

(3.10 GHz, Intel Xeon Platinum 8354H)

SPECspeed®2017\_int\_base = 11.9

SPECspeed®2017\_int\_peak = 12.1

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Nov-2020

**Hardware Availability:** Nov-2020

**Software Availability:** Apr-2020

## Platform Notes (Continued)

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/swaggs barriers and \_\_user pointer sanitization  
 CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling  
 tsx\_async\_abort: Not affected

run-level 3 Nov 23 19:24

SPEC is set to: /home/cpu2017

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/mapper/rhel-home	xfs	876G	186G	690G	22%	/home

From /sys/devices/virtual/dmi/id

BIOS: HPE Bundle:1.0.142 SFW:008.000.189.000.2010080501 10/08/2020  
 Vendor: HPE  
 Product: Superdome Flex 280  
 Product Family: 1590PID02020001  
 Serial: 5UF0130953

Additional information from dmidecode 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:

24x Hynix HMABAGL7ABR4N-XN 128 GB 4 rank 3200  
 24x NO DIMM NO DIMM

(End of data from sysinfo program)

## Compiler Version Notes

```
=====
C          | 600.perlbench_s(base) 602.gcc_s(base, peak) 605.mcf_s(base, peak)
          | 625.x264_s(base, peak) 657.xz_s(base, peak)
=====
```

Intel(R) C Compiler for applications running on Intel(R) 64, Version 2021.1  
 NextGen Build 20200304  
 Copyright (C) 1985-2020 Intel Corporation. All rights reserved.

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**Superdome Flex 280**

(3.10 GHz, Intel Xeon Platinum 8354H)

SPECspeed®2017\_int\_base = 11.9

SPECspeed®2017\_int\_peak = 12.1

**CPU2017 License:** 3  
**Test Sponsor:** HPE  
**Tested by:** HPE

**Test Date:** Nov-2020  
**Hardware Availability:** Nov-2020  
**Software Availability:** Apr-2020

## Compiler Version Notes (Continued)

C | 600.perlbench\_s(peak)

-----  
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.1.1.217 Build 20200306  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.  
-----

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

Intel(R) C Compiler for applications running on Intel(R) 64, Version 2021.1  
NextGen Build 20200304  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.  
-----

=====  
C | 600.perlbench\_s(peak)

-----  
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,  
Version 19.1.1.217 Build 20200306  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.  
-----

=====  
C++ | 620.omnetpp\_s(base, peak) 623.xalanbmk\_s(base, peak)  
631.deepsjeng\_s(base, peak) 641.leela\_s(base, peak)

Intel(R) C++ Compiler for applications running on Intel(R) 64, Version 2021.1  
NextGen Build 20200304  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.  
-----

=====  
Fortran | 648.exchange2\_s(base, peak)

-----  
Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R)  
64, Version 19.1.1.217 Build 20200306  
Copyright (C) 1985-2020 Intel Corporation. All rights reserved.  
-----

## Base Compiler Invocation

C benchmarks:  
icc

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**Superdome Flex 280**

(3.10 GHz, Intel Xeon Platinum 8354H)

SPECspeed®2017\_int\_base = 11.9

SPECspeed®2017\_int\_peak = 12.1

**CPU2017 License:** 3  
**Test Sponsor:** HPE  
**Tested by:** HPE

**Test Date:** Nov-2020  
**Hardware Availability:** Nov-2020  
**Software Availability:** Apr-2020

## Base Compiler Invocation (Continued)

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

## 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:

```
-m64 -qnextgen -std=c11
-Wl,-plugin-opt=-x86-branches-within-32B-boundaries -Wl,-z,muldefs
-xCORE-AVX512 -O3 -ffast-math -flto -mfpmath=sse -funroll-loops
-fuse-ld=gold -qopt-mem-layout-trans=4 -fopenmp -DSPEC_OPENMP
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

C++ benchmarks:

```
-m64 -qnextgen -Wl,-plugin-opt=-x86-branches-within-32B-boundaries
-Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto -mfpmath=sse
-funroll-loops -fuse-ld=gold -qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2020.1.217/linux/compiler/lib/intel64_lin
-lqkmalloc
```

Fortran benchmarks:

```
-m64 -Wl,-plugin-opt=-x86-branches-within-32B-boundaries -xCORE-AVX512
-O3 -ipo -no-prec-div -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte
-mbranches-within-32B-boundaries
```





# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**Superdome Flex 280**

(3.10 GHz, Intel Xeon Platinum 8354H)

SPECspeed®2017\_int\_base = 11.9

SPECspeed®2017\_int\_peak = 12.1

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Nov-2020

**Hardware Availability:** Nov-2020

**Software Availability:** Apr-2020

## Peak Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

## Peak Portability Flags

```
600.perlbench_s: -DSPEC_LP64 -DSPEC_LINUX_X64
602.gcc_s: -DSPEC_LP64(*) -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
```

(\*) Indicates a portability flag that was found in a non-portability variable.

## Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2)
-xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -fno-strict-overflow
-mbranches-within-32B-boundaries
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc

602.gcc_s: -m64 -qnextgen -std=c11 -fuse-ld=gold
-Wl,-plugin-opt=-x86-branches-within-32B-boundaries
-Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX512 -flto
-Ofast(pass 1) -O3 -ffast-math -qopt-mem-layout-trans=4
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2020 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**Superdome Flex 280**

(3.10 GHz, Intel Xeon Platinum 8354H)

SPECspeed®2017\_int\_base = 11.9

SPECspeed®2017\_int\_peak = 12.1

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Nov-2020

**Hardware Availability:** Nov-2020

**Software Availability:** Apr-2020

## Peak Optimization Flags (Continued)

605.mcf\_s: basepeak = yes

625.x264\_s: -m64 -qnextgen -std=c11

-Wl,-plugin-opt=-x86-branches-within-32B-boundaries

-Wl,-z,muldefs -xCORE-AVX512 -flto -O3 -ffast-math

-fuse-ld=gold -qopt-mem-layout-trans=4 -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:

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/HPE-Platform-Flags-Intel-V1.3-CLX-revC.html>

[http://www.spec.org/cpu2017/flags/Intel-ic19.1ul-official-linux64\\_revA.html](http://www.spec.org/cpu2017/flags/Intel-ic19.1ul-official-linux64_revA.html)

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

<http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-V1.3-CLX-revC.xml>

[http://www.spec.org/cpu2017/flags/Intel-ic19.1ul-official-linux64\\_revA.xml](http://www.spec.org/cpu2017/flags/Intel-ic19.1ul-official-linux64_revA.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 v1.1.0 on 2020-11-23 19:28:35-0500.

Report generated on 2020-12-28 09:43:59 by CPU2017 PDF formatter v6255.

Originally published on 2020-12-22.