## Dell Inc.

**PowerEdge R6515 (AMD EPYC 7642, 2.30 GHz)**

<table>
<thead>
<tr>
<th>Thread</th>
<th>SPECspeed®2017_int_base</th>
<th>SPECspeed®2017_int_peak</th>
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<tr>
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<td><code>602.gcc_s</code></td>
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<td><code>605.mcf_s</code></td>
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<tr>
<td><code>625.x264_s</code></td>
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<tr>
<td><code>657.xz_s</code></td>
<td>8.61</td>
<td>8.80</td>
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</tbody>
</table>

### Hardware

- **CPU Name:** AMD EPYC 7642
- **Max MHz:** 3.30 GHz
- **Nominal:** 2.30 GHz
- **Enabled:** 48 cores, 1 chip, 2 threads/core
- **Orderable:** 1 chip
- **Cache L1:** 32 KB I + 32 KB D on chip per core
- **L2:** 512 KB I+D on chip per core
- **L3:** 256 MB I+D on chip per chip, 16 MB shared / 3 cores
- **Other:** None
- **Memory:** 256 GB (8 x 32 GB 2Rx4 PC4-3200AA-R, running at 3200)
- **Storage:** 1 x 960 GB SATA SSD
- **Other:** None

### Software

- **OS:** SUSE Linux Enterprise Server 15 SP1
- **Compiler:** C/C++/Fortran: Version 2.0.0 of AOCC
- **Parallel:** Yes
- **Firmware:** Version 1.1.6 released Oct-2019
- **File System:** xfs
- **System State:** Run level 3 (multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** 32/64-bit
- **Other:** jemalloc: jemalloc memory allocator library v5.1.0
- **Power Management:** BIOS set to prefer performance at the cost of additional power usage.
**SPEC CPU®2017 Integer Speed Result**

**Dell Inc.**

PowerEdge R6515 (AMD EPYC 7642, 2.30 GHz)

---

**SPECspeed®2017_int_base = 8.61**

**SPECspeed®2017_int_peak = 8.80**

---

**Results Table**

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<td>20.0</td>
</tr>
</tbody>
</table>

---

**Compiler Notes**


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**Submit Notes**

The config file option 'submit' was used. 'numactl' was used to bind copies to the cores. See the configuration file for details.

---

**Operating System Notes**

'ulimit -s unlimited' was used to set environment stack size
'ulimit -l 2097152' was used to set environment locked pages in memory limit

runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>

Set dirty_ratio=8 to limit dirty cache to 8% of memory
Set swappiness=1 to swap only if necessary
Set zone_reclaim_mode=1 to free local node memory and avoid remote memory sync then drop_caches=3 to reset caches before invoking runcpu

dirty_ratio, swappiness, zone_reclaim_mode and drop_caches were all set using privileged echo (e.g. echo 1 > /proc/sys/vm/swappiness).

Transparent huge pages set to 'always' for this run (OS default)
SPEC CPU®2017 Integer Speed Result
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Dell Inc.

PowerEdge R6515 (AMD EPYC 7642, 2.30 GHz)

<table>
<thead>
<tr>
<th>CPU2017 License</th>
<th>Test Date</th>
<th>Hardware Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>Oct-2019</td>
<td>Feb-2020</td>
</tr>
</tbody>
</table>

Test Sponsor: Dell Inc.
Tested by: Dell Inc.

SPECspeed®2017_int_base = 8.61
SPECspeed®2017_int_peak = 8.80

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
GOMP_CPU_AFFINITY = "0-95"
LD_LIBRARY_PATH =
    "/root/cpu2017-1.1.0/amd_speed_aocc200_rome_C_lib/64;/root/cpu2017-1.1.0
    /amd_speed_aocc200_rome_C_lib/32:"
MALLOCS_CONF = "retain:true"
OMP_DYNAMIC = "false"
OMP_SCHEDULE = "static"
OMP_STACKSIZE = "128M"
OMP_THREAD_LIMIT = "96"

Environment variables set by runcpu during the 600.perlbench_s peak run:
GOMP_CPU_AFFINITY = "0"

Environment variables set by runcpu during the 605.mcf_s peak run:
GOMP_CPU_AFFINITY = "0"

Environment variables set by runcpu during the 623.xalancbmk_s peak run:
GOMP_CPU_AFFINITY = "0"
OMP_STACKSIZE = "128M"

Environment variables set by runcpu during the 625.x264_s peak run:
GOMP_CPU_AFFINITY = "0"

Environment variables set by runcpu during the 631.deepsjeng_s peak run:
GOMP_CPU_AFFINITY = "0"

General Notes

Binaries were compiled on a system with 2x AMD EPYC 7601 CPU + 512GB Memory using Fedora 26

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: configured and built with GCC v9.1.0 in Ubuntu 19.04 with -O3 -znver2 -flto
jemalloc 5.1.0 is available here:
https://github.com/jemalloc/jemalloc/releases/download/5.1.0/jemalloc-5.1.0.tar.bz2
Dell Inc. PowerEdge R6515 (AMD EPYC 7642, 2.30 GHz)

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CPU2017 License: 55
Test Sponsor: Dell Inc.
Test Date: Oct-2019
Tested by: Dell Inc.
Hardware Availability: Feb-2020
Software Availability: Aug-2019

Platform Notes

BIOS settings:
- NUMA Nodes Per Socket set to 4
- CCX as NUMA Domain set to Enabled
- System Profile set to Custom
- CPU Power Management set to Maximum Performance
- Memory Frequency set to Maximum Performance
- Turbo Boost Enabled
- Cstates set to Enabled
- Memory Patrol Scrub Disabled
- Memory Refresh Rate set to 1x
- PCI ASPM L1 Link Power Management Disabled
- Determinism Slider set to Power Determinism
- Efficiency Optimized Mode Disabled

Sysinfo program /root/cpu2017-1.1.0/bin/sysinfo
Rev: r6365 of 2019-08-21 295195f888a3d7edbe6e46a485a0011
running on linux-g3ob Tue Oct 15 00:42:06 2019

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 : AMD EPYC 7642 48-Core Processor
  1 "physical id"s (chips)
  96 "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 : 48
siblings : 96
physical 0: cores 0 1 2 4 5 6 8 9 10 12 13 14 16 17 18 20 21 22 24 25 26 28 29 30 32 33 34 36 37 38 40 41 42 44 45 46 48 49 50 52 53 54 56 57 58 60 61 62

From lscpu:
Architecture:  x86_64
CPU op-mode(s):  32-bit, 64-bit
Byte Order:  Little Endian
Address sizes:  43 bits physical, 48 bits virtual
CPU(s):  96
On-line CPU(s) list:  0-95
Thread(s) per core:  2
Core(s) per socket:  48
Socket(s):  1
NUMA node(s):  16
Vendor ID:  AuthenticAMD
CPU family:  23
Model:  49

(Continued on next page)
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CPU2017 License: 55
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Test Date: Oct-2019
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Hardware Availability: Feb-2020
Software Availability: Aug-2019

Platform Notes (Continued)

Model name: AMD EPYC 7642 48-Core Processor
Stepping: 0
CPU MHz: 2295.732
BogoMIPS: 4591.46
Virtualization: AMD-V
L1d cache: 32K
L1i cache: 32K
L2 cache: 512K
L3 cache: 16384K
NUMA node0 CPU(s): 0-2,48-50
NUMA node1 CPU(s): 3-5,51-53
NUMA node2 CPU(s): 6-8,54-56
NUMA node3 CPU(s): 9-11,57-59
NUMA node4 CPU(s): 12-14,60-62
NUMA node5 CPU(s): 15-17,63-65
NUMA node6 CPU(s): 18-20,66-68
NUMA node7 CPU(s): 21-23,69-71
NUMA node8 CPU(s): 24-26,72-74
NUMA node9 CPU(s): 27-29,75-77
NUMA node10 CPU(s): 30-32,78-80
NUMA node11 CPU(s): 33-35,81-83
NUMA node12 CPU(s): 36-38,84-86
NUMA node13 CPU(s): 39-41,87-89
NUMA node14 CPU(s): 42-44,90-92
NUMA node15 CPU(s): 45-47,93-95
Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov
pat pse36 clflush mmx fxsr sse sse2 ht syscall nx mmxext fxsr_opt pdp1gb rdtscp lm
constant_tsc rep_good nopl xtopology nonstop_tsc cpuid extd_apicid aperfmperf pni
pclmulqdq monitor ssse3 fma cx16 sse4_1 sse4_2 movbe popcnt aes xsave avx f16c
rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx rdx
rdrand lahf_lm cmp_legacy svm extatic cr8 Legacy abm sse4a misalignsse 3dnowprefetch
osvw 1bs skinit wdt tce topoext perfctr_core perfctr_nb bpext perfctr_l2 mwaitx cpb
cat_l3 cdp_l3 hw_pstate sme ssbd sev ibrs ibpb stibp vmmcall fsgsbase bni avx2 smp
bmi2 cqm rdt_a rdsseed advx clflushopt clwb sha ni xsaveopt xsaves xgetbv1 xcaves
cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local clzero irperf xsaves xsavetr arat npt
lbrv svm_lock nrip_save tsc_scale vmbc_clean flushbyasin decodeassists pausefilter
pfthreshold avic v_vmsave_vmload vgif umip rdpid overflow_recover succor smca

From numactl --hardware WARNING: a numactl 'node' might or might not correspond to a
physical chip.
available: 16 nodes (0-15)
node 0 cpus: 0 1 2 48 49 50
node 0 size: 15548 MB
node 0 free: 15321 MB
node 1 cpus: 3 4 5 51 52 53

(Continued on next page)
### Dell Inc.

PowerEdge R6515 (AMD EPYC 7642, 2.30 GHz)

<table>
<thead>
<tr>
<th>SPECspeed®2017_int_base</th>
<th>SPECspeed®2017_int_peak</th>
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#### Platform Notes (Continued)

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**CPU2017 License:** 55
**Test Date:** Oct-2019
**Test Sponsor:** Dell Inc.
**Hardware Availability:** Feb-2020
**Tested by:** Dell Inc.
**Software Availability:** Aug-2019

**Platform Notes (Continued)**

1: 11 10 11 11 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12
2: 11 11 10 11 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12
3: 11 11 11 10 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12
4: 12 12 12 12 10 11 11 11 12 12 12 12 12 12 12 12 12 12 12 12
5: 12 12 12 12 11 10 11 11 12 12 12 12 12 12 12 12 12 12 12 12
6: 12 12 12 12 11 11 10 11 12 12 12 12 12 12 12 12 12 12 12 12
7: 12 12 12 12 11 11 11 10 12 12 12 12 12 12 12 12 12 12 12 12
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12: 12 12 12 12 12 12 12 12 12 12 12 12 12 10 11 11 11 11 11 11
13: 12 12 12 12 12 12 12 12 12 12 12 12 12 11 10 11 11 11 11 11
14: 12 12 12 12 12 12 12 12 12 12 12 12 12 11 10 11 11 11 11 11
15: 12 12 12 12 12 12 12 12 12 12 12 12 12 11 11 11 11 11 11 11

From /proc/meminfo
MemTotal: 263580124 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*
os-release:
NAME="SLES"
VERSION="15-SP1"
VERSION_ID="15.1"
PRETTY_NAME="SUSE Linux Enterprise Server 15 SP1"
ID="sles"
ID_LIKE="suse"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:15:sp1"

uname -a:
Linux linux-g3ob 4.12.14-195-default #1 SMP Tue May 7 10:55:11 UTC 2019 (8fba516)
x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:
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: __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: Full AMD retpoline, IBPB: conditional, IBRS_FW, STIBP: conditional, RSB filling

(Continued on next page)
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Platform Notes (Continued)

run-level 3 Nov 25 11:50 last=5

SPEC is set to: /root/cpu2017-1.1.0
Filesystem Type Size Used Avail Use% Mounted on
/dev/sda2 xfs 440G 52G 389G 12% /

From /sys/devices/virtual/dmi/id
BIOS: Dell Inc. 1.1.6 10/02/2019
Vendor: Dell Inc.
Product: PowerEdge R6515
Product Family: PowerEdge

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:
8x 80AD863280AD HMA84GR7CR4N-XN 32 GB 2 rank 3200
8x Not Specified Not Specified

(End of data from sysinfo program)

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)
==============================================================================
AOCC.LLVM.2.0.0.B191.2019_07_19 clang version 8.0.0 (CLANG: Jenkins
AOCC_2_0_0-Build#191) (based on LLVM AOCC.LLVM.2.0.0.B191.2019_07_19)
Target: x86_64-unknown-linux-gnu
Thread model: posix
InstalledDir: /sppo/dev/compilers/aocc-compiler-2.0.0/bin
==============================================================================
C++     | 623.xalancbmk_s(peak)
==============================================================================
AOCC.LLVM.2.0.0.B191.2019_07_19 clang version 8.0.0 (CLANG: Jenkins
AOCC_2_0_0-Build#191) (based on LLVM AOCC.LLVM.2.0.0.B191.2019_07_19)
Target: i386-unknown-linux-gnu
Thread model: posix
InstalledDir: /sppo/dev/compilers/aocc-compiler-2.0.0/bin
(Continued on next page)
Dell Inc.  
PowerEdge R6515 (AMD EPYC 7642, 2.30 GHz) 

<table>
<thead>
<tr>
<th>SPECspeed®2017_int_base</th>
<th>8.61</th>
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<tr>
<td>SPECspeed®2017_int_peak</td>
<td>8.80</td>
</tr>
</tbody>
</table>

CPU2017 License: 55  
Test Sponsor: Dell Inc.  
Tested by: Dell Inc.  
Test Date: Oct-2019  
Hardware Availability: Feb-2020  
Software Availability: Aug-2019

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Compiler Version Notes (Continued)

```plaintext
C++  | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base) 631.deepsjeng_s(base, peak) 641.leela_s(base, peak)

AOCC.LLVM.2.0.0.B191.2019_07_19 clang version 8.0.0 (CLANG: Jenkins)  
AOCC_2_0_0-Build#191 (based on LLVM AOCC.LLVM.2.0.0.B191.2019_07_19)  
Target: x86_64-unknown-linux-gnu  
Thread model: posix  
InstalledDir: /sppo/dev/compilers/aocc-compiler-2.0.0/bin

C++  | 623.xalancbmk_s(peak)

AOCC.LLVM.2.0.0.B191.2019_07_19 clang version 8.0.0 (CLANG: Jenkins)  
AOCC_2_0_0-Build#191 (based on LLVM AOCC.LLVM.2.0.0.B191.2019_07_19)  
Target: i386-unknown-linux-gnu  
Thread model: posix  
InstalledDir: /sppo/dev/compilers/aocc-compiler-2.0.0/bin

C++  | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base) 631.deepsjeng_s(base, peak) 641.leela_s(base, peak)

AOCC.LLVM.2.0.0.B191.2019_07_19 clang version 8.0.0 (CLANG: Jenkins)  
AOCC_2_0_0-Build#191 (based on LLVM AOCC.LLVM.2.0.0.B191.2019_07_19)  
Target: x86_64-unknown-linux-gnu  
Thread model: posix  
InstalledDir: /sppo/dev/compilers/aocc-compiler-2.0.0/bin

Fortran | 648.exchange2_s(base, peak)  

AOCC.LLVM.2.0.0.B191.2019_07_19 clang version 8.0.0 (CLANG: Jenkins)  
AOCC_2_0_0-Build#191 (based on LLVM AOCC.LLVM.2.0.0.B191.2019_07_19)  
Target: x86_64-unknown-linux-gnu  
Thread model: posix  
InstalledDir: /sppo/dev/compilers/aocc-compiler-2.0.0/bin
```

---

Base Compiler Invocation

C benchmarks: clang

(Continued on next page)
Dell Inc.  
PowerEdge R6515 (AMD EPYC 7642, 2.30 GHz)  

| SPECspeed®2017_int_base = 8.61 |
| SPECspeed®2017_int_peak = 8.80 |

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**Base Compiler Invocation (Continued)**

C++ benchmarks:
clave

Fortran benchmarks:
flang

---

**Base Portability Flags**

600.perlbench_s: -DSPEC_LINUX_X64 -DSPEC_LP64
602.gcc_s: -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -DSPEC_LINUX -DSPEC_LP64
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:
- f1to -Wl, -mlvm -Wl, -function-specialize
- -Wl, -mlvm -Wl, -region-vectorize -Wl, -mlvm -Wl, -vector-library=LIBMVEC
- -Wl, -mlvm -Wl, -reduce-array-computations=3 -O3 -ffast-math
- -march=znver2 -fstruct-layout=3 -mlvm -unroll-threshold=50
- -flv-function-specialization -Z muldefs -DSPEC_OPENMP -fopenmp
- -DUSE_OPENMP -fopenmp=libomp -lomp -lpthread -ldl -lmvec -lamlbib -ljemalloc -lflang

C++ benchmarks:
- f1to -Wl, -mlvm -Wl, -function-specialize
- -Wl, -mlvm -Wl, -region-vectorize -Wl, -mlvm -Wl, -vector-library=LIBMVEC
- -Wl, -mlvm -Wl, -reduce-array-computations=3
- -Wl, -mlvm -Wl, -suppress-fmas -O3 -ffast-math -march=znver2
- -mlvm -loop-unswitch-threshold=200000 -mlvm -vector-library=LIBMVEC
- -mlvm -unroll-threshold=100 -flv-function-specialization

(Continued on next page)
Base Optimization Flags (Continued)

C++ benchmarks (continued):
-mllvm -enable-partial-unswitch -z muldefs -DSPEC_OPENMP -fopenmp
-DUSE_OPENMP -fopenmp=libomp -lomp -lpthread -ldl -lmvec -lamdlibm
-ljemalloc -lflang

Fortran benchmarks:
-flto -W1, -mllvm -W1, -function-specialize
-W1, -mllvm -W1, -region-vectorize -W1, -mllvm -W1, -vector-library=LIBMVEC
-W1, -mllvm -W1, -reduce-array-computations=3 -ffast-math
-W1, -mllvm -W1, -inline-recursion=4 -W1, -mllvm -W1, -lsr-in-nested-loop
-W1, -mllvm -W1, -enable-iv-split -O3 -march=znver2 -funroll-loops
-Mrecursive -mllvm -vector-library=LIBMVEC -z muldefs
-mllvm -disable-indvar-simplify -mllvm -unroll-aggressive
-mllvm -unroll-threshold=150 -DSPEC_OPENMP -fopenmp -DUSE_OPENMP
-fopenmp=libomp -lomp -lpthread -ldl -lmvec -lamdlibm -ljemalloc
-lflang

Base Other Flags

C benchmarks:
- Wno-return-type

C++ benchmarks:
- Wno-return-type

Fortran benchmarks:
- Wno-return-type

Peak Compiler Invocation

C benchmarks:
clang

C++ benchmarks:
clang++

Fortran benchmarks:
flang
Dell Inc.
PowerEdge R6515 (AMD EPYC 7642, 2.30 GHz)

SPECspeed®2017_int_base = 8.61
SPECspeed®2017_int_peak = 8.80

CPU2017 License: 55
Test Sponsor: Dell Inc.
Test Date: Oct-2019
Tested by: Dell Inc.
Hardware Availability: Feb-2020
Software Availability: Aug-2019

Peak Portability Flags

600.perlbench_s: -DSPEC_LINUX_X64 -DSPEC_LP64
602.gcc_s: -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -DSPEC_LINUX -D_FILE_OFFSET_BITS=64
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

Peak Optimization Flags

C benchmarks:

(Continued on next page)
Peak Optimization Flags (Continued)

605.mcf_s (continued):
-mlvm -global-vectorize-slp -mlllvm -inline-threshold=1000
-flv-function-specialization -DSPEC_OPENMP -fopenmp
-DUSE_OPENMP -lmvec -lamdlibm -fopenmp=libomp -lomp
-lpthread -ldl -ljemalloc -lflang

625.x264_s: Same as 600.perlbench_s
657.xz_s: basepeak = yes

C++ benchmarks:

620.omnetpp_s: basepeak = yes

623.xalancbmk_s: -m32 -flto -Wl,-mlllvm -Wl,-function-specialize
-Wl,-mlllvm -Wl,-region-vectorize
-Wl,-mlllvm -Wl,-vector-library=LIBMVEC
-Wl,-mlllvm -Wl,-reduce-array-computations=3 -Ofast
-march=znver2 -flv-function-specialization
-mlllvm -unroll-threshold=100
-mlllvm -enable-partial-unswitch
-mlllvm -loop-unswitch-threshold=200000
-mlllvm -vector-library=LIBMVEC
-mlllvm -inline-threshold=1000 -DSPEC_OPENMP -fopenmp
-DUSE_OPENMP -fopenmp=libomp -lomp -lpthread -ldl
-ljemalloc

631.deepsjeng_s: -flto -Wl,-mlllvm -Wl,-function-specialize
-Wl,-mlllvm -Wl,-region-vectorize
-Wl,-mlllvm -Wl,-vector-library=LIBMVEC
-Wl,-mlllvm -Wl,-reduce-array-computations=3 -Ofast
-march=znver2 -flv-function-specialization
-mlllvm -unroll-threshold=100
-mlllvm -enable-partial-unswitch
-mlllvm -loop-unswitch-threshold=200000
-mlllvm -vector-library=LIBMVEC
-mlllvm -inline-threshold=1000 -DSPEC_OPENMP -fopenmp
-DUSE_OPENMP -fopenmp=libomp -lomp -lpthread -ldl
-lmvec -lamdlibm -ljemalloc -lflang

641.leela_s: basepeak = yes

Fortran benchmarks:

648.exchange2_s: basepeak = yes
## SPEC CPU®2017 Integer Speed Result

### Dell Inc.

**PowerEdge R6515 (AMD EPYC 7642, 2.30 GHz)**

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**CPU2017 License:** 55  
**Test Sponsor:** Dell Inc.  
**Tested by:** Dell Inc.

### Test Details

- **Test Date:** Oct-2019  
- **Hardware Availability:** Feb-2020  
- **Software Availability:** Aug-2019

#### Peak Other Flags

- **C benchmarks:**
  - `-Wno-return-type`

- **C++ benchmarks (except as noted below):**
  - `-Wno-return-type`

- **623.xalancbmk_s:**
  - `-Wno-return-type`
  - `-L/sppo/dev/cpu2017/v110/amd_speed_aocc200_rome_C_lib/32`

- **Fortran benchmarks:**
  - `-Wno-return-type`

The flags files that were used to format this result can be browsed at:


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


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

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