# SPEC CPU®2017 Integer Rate Result

## Dell Inc.

PowerEdge T440 (Intel Xeon Bronze 3204, 1.90 GHz)

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base</th>
<th>SPECrate®2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.8</td>
<td>39.7</td>
</tr>
</tbody>
</table>

### CPU2017 License: 55

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Feb-2020

Hardware Availability: Dec-2019

Software Availability: Jun-2019

### Hardware

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name</td>
<td>Intel Xeon Bronze 3204</td>
</tr>
<tr>
<td>Max MHz</td>
<td>1900</td>
</tr>
<tr>
<td>Nominal</td>
<td>1900</td>
</tr>
<tr>
<td>Enabled</td>
<td>12 cores, 2 chips</td>
</tr>
<tr>
<td>Orderable</td>
<td>1.2 chips</td>
</tr>
<tr>
<td>Cache L1</td>
<td>32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td>L2</td>
<td>1 MB I+D on chip per core</td>
</tr>
<tr>
<td>L3</td>
<td>8.25 MB I+D on chip per chip</td>
</tr>
<tr>
<td>Other</td>
<td>None</td>
</tr>
<tr>
<td>Memory</td>
<td>384 GB (12 x 32 GB 2Rx8 PC4-2666V-R)</td>
</tr>
<tr>
<td>Storage</td>
<td>1 x 960 GB SATA SSD</td>
</tr>
<tr>
<td>Other</td>
<td>None</td>
</tr>
</tbody>
</table>

### Software

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>Suse Linux Enterprise Server 15 SP1</td>
</tr>
<tr>
<td></td>
<td>kernel 4.12.14-195-default</td>
</tr>
<tr>
<td>Compiler</td>
<td>C/C++: Version 19.0.4.227 of Intel C/C++</td>
</tr>
<tr>
<td></td>
<td>Compiler Build 20190416 for Linux: Fortran: Version 19.0.4.227 of Intel Fortran</td>
</tr>
<tr>
<td></td>
<td>Compiler Build 20190416 for Linux</td>
</tr>
<tr>
<td>Parallel</td>
<td>No</td>
</tr>
<tr>
<td>Firmware</td>
<td>Version 2.5.4 released Jan-2020</td>
</tr>
<tr>
<td>File System</td>
<td>xfs</td>
</tr>
<tr>
<td>System State</td>
<td>Run level 3 (multi-user)</td>
</tr>
<tr>
<td>Base Pointers</td>
<td>64-bit</td>
</tr>
<tr>
<td>Peak Pointers</td>
<td>32/64-bit</td>
</tr>
<tr>
<td>Other</td>
<td>jemalloc memory allocator V5.0.1</td>
</tr>
<tr>
<td>Power Management</td>
<td>BIOS set to prefer performance at the cost of additional power usage</td>
</tr>
</tbody>
</table>
Dell Inc. PowerEdge T440 (Intel Xeon Bronze 3204, 1.90 GHz)  

SPECrate®2017_int_base = 38.8  
SPECrate®2017_int_peak = 39.7

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
<td>12</td>
<td>616</td>
<td>31.0</td>
<td>615</td>
<td>31.1</td>
<td>614</td>
<td>31.0</td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>12</td>
<td>464</td>
<td>36.6</td>
<td>463</td>
<td>36.7</td>
<td>462</td>
<td>36.6</td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>12</td>
<td>416</td>
<td>46.7</td>
<td>416</td>
<td>46.6</td>
<td>416</td>
<td>46.6</td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>12</td>
<td>547</td>
<td>28.8</td>
<td>539</td>
<td>29.2</td>
<td>539</td>
<td>29.2</td>
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<tr>
<td>523.xalancbmk_r</td>
<td>12</td>
<td>266</td>
<td>47.7</td>
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<td>47.6</td>
<td>266</td>
<td>47.6</td>
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<tr>
<td>525.x264_r</td>
<td>12</td>
<td>300</td>
<td>70.1</td>
<td>299</td>
<td>70.2</td>
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<td>70.2</td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>12</td>
<td>432</td>
<td>31.8</td>
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<td>31.9</td>
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<td>31.8</td>
</tr>
<tr>
<td>541.leela_r</td>
<td>12</td>
<td>769</td>
<td>25.8</td>
<td>767</td>
<td>25.9</td>
<td>767</td>
<td>25.9</td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>12</td>
<td>388</td>
<td>80.9</td>
<td>390</td>
<td>80.7</td>
<td>390</td>
<td>80.7</td>
</tr>
<tr>
<td>557.xz_r</td>
<td>12</td>
<td>570</td>
<td>22.7</td>
<td>570</td>
<td>22.7</td>
<td>570</td>
<td>22.7</td>
</tr>
</tbody>
</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/lib/intel64:/home/cpu2017/lib/ia32:/home/cpu2017/je5.0.1-32"

General Notes

Binaries compiled on a system with 1x Intel Core i9-7900X CPU + 32GB RAM memory using Redhat Enterprise Linux 7.5

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)
Dell Inc.
PowerEdge T440 (Intel Xeon Bronze 3204, 1.90 GHz)  

SPECrater®2017_int_base = 38.8  
SPECrater®2017_int_peak = 39.7

<table>
<thead>
<tr>
<th>CPU2017 License: 55</th>
<th>Test Date: Feb-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor: Dell Inc.</td>
<td>Hardware Availability: Dec-2019</td>
</tr>
<tr>
<td>Tested by: Dell Inc.</td>
<td>Software Availability: Jun-2019</td>
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**General Notes (Continued)**

is mitigated in the system as tested and documented.  
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>  
  jemalloc, a general purpose malloc implementation  
built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5  

**Platform Notes**

BIOS settings:  
Sub NUMA Cluster enabled  
Virtualization Technology disabled  
DCU Streamer Prefetcher disabled  
System Profile set to Custom  
CPU Performance set to Maximum Performance  
C States set to Autonomous  
C1E disabled  
Uncore Frequency set to Dynamic  
Energy Efficiency Policy set to Performance  
Memory Patrol Scrub disabled  
CPU Interconnect Bus Link Power Management enabled  
PCI ASPM L1 Link Power Management enabled

Sysinfo program /home/cpu2017/bin/sysinfo  
Rev: r6365 of 2019-08-21 295195f888a3d7ed16e646485a0011  
running on linux-g3ob Wed Feb 26 10:03:09 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) Bronze 3204 CPU @ 1.90GHz  
  2 "physical id"s (chips)  
  12 "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 : 6  
  siblings : 6  
  physical 0: cores 0 1 2 3 4 5  
  physical 1: cores 0 1 2 3 4 5

(Continued on next page)
Dell Inc.  
PowerEdge T440 (Intel Xeon Bronze 3204, 1.90 GHz)  

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</tr>
<tr>
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<td>Dell Inc.</td>
<td>Software Availability:</td>
<td>Jun-2019</td>
</tr>
</tbody>
</table>

**Platform Notes (Continued)**

From `lscpu`:
- **Architecture:** x86_64
- **CPU oper-mode(s):** 32-bit, 64-bit
- **Byte Order:** Little Endian
- **Address sizes:** 46 bits physical, 48 bits virtual
- **CPU(s):** 12
- **On-line CPU(s) list:** 0-11
- **Thread(s) per core:** 1
- **Core(s) per socket:** 6
- **Socket(s):** 2
- **NUMA node(s):** 2
- **Vendor ID:** GenuineIntel
- **CPU family:** 6
- **Model:** 85
- **Model name:** Intel(R) Xeon(R) Bronze 3204 CPU @ 1.90GHz
- **Stepping:** 7
- **CPU MHz:** 1900.000
- **BogoMIPS:** 3800.00
- **Virtualization:** VT-x
- **L1d cache:** 32K
- **L1i cache:** 32K
- **L2 cache:** 1024K
- **L3 cache:** 8448K
- **NUMA node0 CPU(s):** 0, 2, 4, 6, 8, 10
- **NUMA node1 CPU(s):** 1, 3, 5, 7, 9, 11
- **Flags:** fpu vme de pse tsc msr pae mce cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf 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 cdp_l3 invpcid_single intel_p Kitt 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 xsavec xsaveopt xsaves cqm_llc cqm_occup_llc cqm_mbb_total cqm_mbb_local dtherm arat pln pts pku ospke avx512_vnni md_clear flush_l1d arch_capabilities

```
/proc/cpuinfo cache data
  cache size : 8448 KB
```

From `numactl --hardware` WARNING: a numactl 'node' might or might not correspond to a physical chip.
- **available:** 2 nodes (0-1)
- **node 0 cpus:** 0 2 4 6 8 10
- **node 0 size:** 193020 MB
- **node 0 free:** 192591 MB

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(Continued on next page)
Dell Inc.
PowerEdge T440 (Intel Xeon Bronze 3204, 1.90 GHz)

SPEC CPU®2017 Integer Rate Result
Copyright 2017-2020 Standard Performance Evaluation Corporation

SPECrate®2017_int_base = 38.8
SPECrate®2017_int_peak = 39.7

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

Test Date: Feb-2020
Hardware Availability: Dec-2019
Software Availability: Jun-2019

Platform Notes (Continued)

node 1 cpus: 1 3 5 7 9 11
node 1 size: 193504 MB
node 1 free: 192991 MB
node distances:
  node 0 1
    0: 10 21
    1: 21 10

From /proc/meminfo
  MemTotal: 395802100 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: Enhanced IBRS, IBPB: conditional, RSB filling

run-level 3 Feb 26 10:02 last=5

SPEC is set to: /home/cpu2017
  Filesystem     Type  Size  Used  Avail Use% Mounted on
  /dev/sda2      xfs  440G   46G  395G  11% /

From /sys/devices/virtual/dmi/id
  BIOS: Dell Inc. 2.5.4 01/14/2020

(Continued on next page)
SPEC CPU®2017 Integer Rate Result

Dell Inc.
PowerEdge T440 (Intel Xeon Bronze 3204, 1.90 GHz)

SPECrate®2017_int_base = 38.8
SPECrate®2017_int_peak = 39.7

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

Platform Notes (Continued)

Vendor:  Dell Inc.
Product:  PowerEdge T440
Product Family:  PowerEdge
Serial:  FBLH613

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:
4x 00AD00B300AD HMA84GR7CJR4N-WM 32 GB 2 rank 2933
8x 00AD063200AD HMA84GR7CJR4N-WM 32 GB 2 rank 2933
4x Not Specified Not Specified

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
C       | 502.gcc_r(peak)
-----------------------------------------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on IA-32, Version
19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation.  All rights reserved.
-----------------------------------------------------------------------------

==============================================================================
C       | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak)
-----------------------------------------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation.  All rights reserved.
-----------------------------------------------------------------------------

==============================================================================
C       | 502.gcc_r(peak)
-----------------------------------------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on IA-32, Version
19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation.  All rights reserved.
-----------------------------------------------------------------------------

==============================================================================
C       | 500.perlbench_r(base, peak) 502.gcc_r(base) 505.mcf_r(base, peak)
-----------------------------------------------------------------------------
525.x264_r(base, peak) 557.xz_r(base, peak)
==============================================================================

(Continued on next page)
 Compiler Version Notes (Continued)

Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

-----------------------------------------------------------------------------
C++  | 523.xalancbmk_r(peak)
-----------------------------------------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on IA-32, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

-----------------------------------------------------------------------------
C++  | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base)
       531.deepsjeng_r(base, peak) 541.leela_r(base, peak)
-----------------------------------------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

-----------------------------------------------------------------------------
C++  | 523.xalancbmk_r(peak)
-----------------------------------------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on IA-32, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

-----------------------------------------------------------------------------
C++  | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base)
       531.deepsjeng_r(base, peak) 541.leela_r(base, peak)
-----------------------------------------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

-----------------------------------------------------------------------------
Fortran | 548.exchange2_r(base, peak)
-----------------------------------------------------------------------------
Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
## Base Compiler Invocation

- **C benchmarks:**
  - `icc -m64 -std=c11`

- **C++ benchmarks:**
  - `icpc -m64`

- **Fortran benchmarks:**
  - `ifort -m64`

## Base Portability Flags

```
500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -DSPEC_LP64
505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64
541.leela_r: -DSPEC_LP64
548.exchange2_r: -DSPEC_LP64
557.xz_r: -DSPEC_LP64
```

## Base Optimization Flags

- **C benchmarks:**
  - `–W1,–z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div`  
  - `–qopt-mem-layout-trans=4`  
  - `-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64`  
  - `–lqkmalloc`

- **C++ benchmarks:**
  - `–W1,–z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div`  
  - `–qopt-mem-layout-trans=4`  
  - `-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64`  
  - `–lqkmalloc`

- **Fortran benchmarks:**
  - `–W1,–z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div`  
  - `–qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte`  
  - `-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64`  
  - `–lqkmalloc`
### Dell Inc.

**PowerEdge T440 (Intel Xeon Bronze 3204, 1.90 GHz)**

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**CPU2017 License:** 55  
**Test Date:** Feb-2020  
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**Tested by:** Dell Inc.  
**Software Availability:** Jun-2019

### Peak Compiler Invocation

C benchmarks (except as noted below):

```
icc -m64 -std=c11
```

$02.gcc_r:icc -m32 -std=c11 -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/ia32_lin

C++ benchmarks (except as noted below):

```
icpc -m64
```

$23.xalancbmk_r:icpc -m32 -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/ia32_lin

Fortran benchmarks:

```
ifort -m64
```

### Peak Portability Flags

- 500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64  
- 502.gcc_r: -D_FILE_OFFSET_BITS=64  
- 505.mcf_r: -DSPEC_LP64  
- 520.omnetpp_r: -DSPEC_LP64  
- 523.xalancbmk_r: -D_FILE_OFFSET_BITS=64 -DSPEC_LINUX  
- 525.x264_r: -DSPEC_LP64  
- 531.deepsjeng_r: -DSPEC_LP64  
- 541.leela_r: -DSPEC_LP64  
- 548.exchange2_r: -DSPEC_LP64  
- 557.xz_r: -DSPEC_LP64  

### Peak Optimization Flags

C benchmarks:

```
500.perlbench_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4
-fno-strict-overflow
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc
```

```
502.gcc_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4
-L/usr/local/je5.0.1-32/lib -ljemalloc
```

```
505.mcf_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
```

(Continued on next page)
Dell Inc. PowerEdge T440 (Intel Xeon Bronze 3204, 1.90 GHz)

| SPECrate®2017_int_base = 38.8 | SPECrate®2017_int_peak = 39.7 |

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

**Peak Optimization Flags (Continued)**

505.mcf_r (continued):
- L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
- lqkmalloc

525.x264_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
- qopt-mem-layout-trans=4 -fno-alias
- L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
- lqkmalloc

557.xz_r: Same as 505.mcf_r

C++ benchmarks:

520.omnetpp_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
- qopt-mem-layout-trans=4
- L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
- lqkmalloc

523.xalancbmk_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
- xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4
- L/usr/local/je5.0.1-32/lib -ljemalloc

531.deepsjeng_r: Same as 520.omnetpp_r

541.leela_r: Same as 520.omnetpp_r

Fortran benchmarks:

-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
- qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte
- L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
- lqkmalloc

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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<th>SPEC CPU®2017 Integer Rate Result</th>
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<tr>
<td>Dell Inc.</td>
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<tr>
<td>PowerEdge T440 (Intel Xeon Bronze 3204, 1.90 GHz)</td>
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SPECrater®2017_int_base = 38.8
SPECrater®2017_int_peak = 39.7

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<td>Test Date:</td>
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<td>Hardware Availability:</td>
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<td>Software Availability:</td>
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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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