Dell M630 Blade (Intel Xeon E5-2680 v3)

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 7.35

**Hardware**

<table>
<thead>
<tr>
<th>CPU Name:</th>
<th>Dual Intel Xeon E5-2680 v3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Characteristics:</td>
<td>Intel Turbo Boost Technology off, Hyper-Threading on</td>
</tr>
<tr>
<td>CPU MHz:</td>
<td>2500</td>
</tr>
<tr>
<td>CPU MHz Maximum:</td>
<td>3300</td>
</tr>
<tr>
<td>FPU:</td>
<td>Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled:</td>
<td>24 cores, 2 chips, 12 cores/chip, 2 threads/core</td>
</tr>
<tr>
<td>CPU(s) orderable:</td>
<td>1-2 chips</td>
</tr>
<tr>
<td>Primary Cache:</td>
<td>32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td>Secondary Cache:</td>
<td>256 KB I+D on chip per core</td>
</tr>
<tr>
<td>L3 Cache:</td>
<td>30 MB I+D on chip per chip</td>
</tr>
<tr>
<td>Other Cache:</td>
<td>None</td>
</tr>
<tr>
<td>Memory:</td>
<td>128 GB (16 x 8 GB 2Rx4 PC4-2133P-R)</td>
</tr>
<tr>
<td>Disk Subsystem:</td>
<td>460GB (SATA Mix Use MLC 6Gbps 2.5in Hot-plug Drive, 13G (400-AEIX) dual SSDs, RAID-1)</td>
</tr>
<tr>
<td>Other Hardware:</td>
<td>None</td>
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</tbody>
</table>

**Software**

<table>
<thead>
<tr>
<th>Operating System:</th>
<th>CentOS Linux release 7.5.1804 (Core) 3.10.0-862.11.6.el7.x86_64</th>
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</thead>
<tbody>
<tr>
<td>Compiler:</td>
<td>C/C++/Fortran: Version 18.0.3.222 of Intel Parallel Studio XE for Linux Build 20180410</td>
</tr>
<tr>
<td>Auto Parallel:</td>
<td>No</td>
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<tr>
<td>File System:</td>
<td>XFS</td>
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<tr>
<td>System State:</td>
<td>Run level 3 (multi-user)</td>
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<tr>
<td>Base Pointers:</td>
<td>64-bit</td>
</tr>
<tr>
<td>Peak Pointers:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Other Software:</td>
<td>None</td>
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</tbody>
</table>

Test Sponsor: University of Delaware

Test date: Sep-2018

Hardware Availability: Jun-2018

Tested by: University of Delaware

Software Availability: Jun-2018
SPEC OMPG2012 Result

Dell

(Test Sponsor: University of Delaware)

Dell M630 Blade (Intel Xeon E5-2680 v3)

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 7.35

OMP2012 license: 056A
Test sponsor: University of Delaware
Tested by: University of Delaware

Base Threads Run: 44
Minimum Peak Threads: --
Maximum Peak Threads: --

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>Base</td>
<td></td>
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<td></td>
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<td>350.md</td>
<td>44</td>
<td>444</td>
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<td>9.67</td>
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<td>6.96</td>
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<td>359.botsspar</td>
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<td>367.imagick</td>
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<td>376.kdtree</td>
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<td>756</td>
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<td>5.94</td>
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</tbody>
</table>

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

Platform Notes

Sysinfo program /home/huberth/SPEC_OMP2012v1.1/Docs/sysinfo
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)
running on r01c2b04 Thu Sep 13 19:18:58 2018

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
http://www.spec.org/omp2012/Docs/config.html#sysinfo

From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E5-2680 v3 @ 2.50GHz
2 "physical id"s (chips)
48 "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 : 12
siblings : 24
physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 13
cache size : 30720 KB
Dell M630 Blade (Intel Xeon E5-2680 v3)

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Platform Notes (Continued)

From /proc/meminfo
   MemTotal:       131612388 kB
   HugePages_Total:       0
   Hugepagesize:       2048 kB

/usr/bin/lsb_release -d
   CentOS Linux release 7.5.1804 (Core)

From /etc/*release* /etc/*version*
   centos-release: CentOS Linux release 7.5.1804 (Core)
   centos-release-upstream: Derived from Red Hat Enterprise Linux 7.5 (Source)
   os-release:
      NAME="CentOS Linux"
      VERSION="7 (Core)"
      ID="centos"
      ID_LIKE="rhel fedora"
      VERSION_ID="7.5.1804`
      PRETTY_NAME="CentOS Linux 7 (Core)"
      ANSI_COLOR="0;31"
      CPE_NAME="cpe:/o:centos:centos:7"
   redhat-release: CentOS Linux release 7.5.1804 (Core)
   system-release: CentOS Linux release 7.5.1804 (Core)
   system-release-cpe: cpe:/o:centos:centos:7

uname -a:
   Linux r01c2b04 3.10.0-862.11.6.el7.x86_64 #1 SMP Tue Aug 14 21:49:04 UTC 2018
   x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Sep 13 18:53

SPEC is set to: /home/huberth/SPEC_OMP2012v1.1
   Filesystem Type Size Used Avail Use% Mounted on
   /dev/mapper/centos_r01c2b04-root xfs 926G 43G 884G 5% /

Additional information from dmidecode:

   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 SMI BIOS" standard.

(End of data from sysinfo program)

General Notes

Environment Variables:
   KMP_STACKSIZE=1G
   ulimit -s unlimited
   KMP_AFFINITY=compact

Continued on next page
Dell M630 Blade (Intel Xeon E5-2680 v3)

SPECompG_peak2012 = Not Run
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General Notes (Continued)

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1)
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2)

Base Compiler Invocation

C benchmarks:  
icc

C++ benchmarks:  
icpc

Fortran benchmarks:  
ifort

Base Portability Flags

350.md: -free
357.bt331: -mcmodel=medium
363.swim: -mcmodel=medium
367.imagick: -std=c99

Base Optimization Flags

C benchmarks:
   -ansi-alias -qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt
   -fp-model fast=2 -xHost

C++ benchmarks:
   -ansi-alias -qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt
   -fp-model fast=2 -xHost

Fortran benchmarks:
   -qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt -fp-model fast=2
   -xHost

The flags file that was used to format this result can be browsed at
http://www.spec.org/omp2012/flags/Intel-ic17-linux64.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/Intel-ic17-linux64.xml
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</thead>
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<tr>
<td>Dell</td>
<td>Test date: Sep-2018</td>
<td></td>
</tr>
<tr>
<td>(Test Sponsor: University of Delaware)</td>
<td>Hardware Availability: Jun-2018</td>
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</tr>
<tr>
<td>Dell M630 Blade (Intel Xeon E5-2680 v3)</td>
<td>Tested by: University of Delaware</td>
<td>Software Availability: Jun-2018</td>
</tr>
</tbody>
</table>

OMP2012 license: 056A

Tested with SPEC OMP2012 v1.1.
Originally published on 19 December 2018.

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