Dell M630 Blade (KVM virtual machine)

SPECompG_base2012 = 6.21

Test date: Sep-2018
Hardware Availability: Jun-2018
Software Availability: Jun-2018

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### Hardware

- **CPU Name:** Dual Intel Xeon E5-2680 v3 (44 of 48 ht cores allocated to KVM)
- **CPU Characteristics:** Intel Turbo Boost Technology off, Hyper-Threading on
- **CPU MHz:** 2500
- **CPU MHz Maximum:** 3300
- **FPU:** Integrated
- **CPU(s) enabled:** 24 cores, 2 chips, 12 cores/chip, 2 threads/core
- **CPU(s) orderable:** 1-2 chips
- **Primary Cache:** 32 KB I + 32 KB D on chip per core
- **Secondary Cache:** 256 KB I+D on chip per core
- **L3 Cache:** 30 MB I+D on chip per chip
- **Other Cache:** None
- **Memory:**
  - 128 GB (16 x 8 GB 2Rx4 PC4-2133P-R)
  - 118 GB (118/128 GB Allocated to KVM)
- **Disk Subsystem:**
  - 400GB (SATA Mix Use MLC 6Gbps 2.5in Hot-plug Drive,13G (400-AT6)-207 dual SSDs, RAID-1)

---

### Software

- **Operating System:** CentOS Linux release 7.5.1804 (Core) 3.10.0-862.3.3.el7.x86_64
- **Compiler:** C/C++/Fortran: Version 18.4 of PGI Community Edition
- **Auto Parallel:** No
- **File System:** CephFS
- **System State:** Run level 5 (multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** Not Applicable
- **Other Software:** KVM Version 2.10.0-21
SPEC OMPG2012 Result

Dell
(Test Sponsor: University of Delaware)

Dell M630 Blade (KVM virtual machine)

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 6.21

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

Other Hardware: None
Base Threads Run: 44
Minimum Peak Threads: --
Maximum Peak Threads: --

Results Table

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<th>Seconds</th>
<th>Ratio</th>
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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/tmh97/SPEC_OMP2012v1.1/Docs/sysinfo
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)
runtime on js-156-29.jetstream-cloud.org Fri Sep 14 16:57:18 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
44 "physical id"s (chips)
44 "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 : 1
siblings : 1
physical 0: cores 0
physical 1: cores 0
physical 2: cores 0

Continued on next page
**Dell**  
(Test Sponsor: University of Delaware)

**Dell M630 Blade (KVM virtual machine)**

**SPECompG peak2012 = Not Run**

**SPECompG base2012 = 6.21**

- **OMP2012 license:** 056A
- **Test date:** Sep-2018
- **Test sponsor:** University of Delaware
- **Hardware Availability:** Jun-2018
- **Tested by:** University of Delaware
- **Software Availability:** Jun-2018

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**Platform Notes (Continued)**

```plaintext
physical 3: cores 0
physical 4: cores 0
physical 5: cores 0
physical 6: cores 0
physical 7: cores 0
physical 8: cores 0
physical 9: cores 0
physical 10: cores 0
physical 11: cores 0
physical 12: cores 0
physical 13: cores 0
physical 14: cores 0
physical 15: cores 0
physical 16: cores 0
physical 17: cores 0
physical 18: cores 0
physical 19: cores 0
physical 20: cores 0
physical 21: cores 0
physical 22: cores 0
physical 23: cores 0
physical 24: cores 0
physical 25: cores 0
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physical 27: cores 0
physical 28: cores 0
physical 29: cores 0
physical 30: cores 0
physical 31: cores 0
physical 32: cores 0
physical 33: cores 0
physical 34: cores 0
physical 35: cores 0
physical 36: cores 0
physical 37: cores 0
physical 38: cores 0
physical 39: cores 0
physical 40: cores 0
physical 41: cores 0
physical 42: cores 0
physical 43: cores 0

Cache size : 16384 KB
```

From `/proc/meminfo`

- **MemTotal:** 123602104 kB
- **HugePages_Total:** 0
- **Hugepagesize:** 2048 kB

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

From `/etc/*release* /etc/*version*`  
Continued on next page
SPEC OMPG2012 Result

Dell
(Test Sponsor: University of Delaware)

Dell M630 Blade (KVM virtual machine)

SPECompG_peak2012 = Not Run
SPECompG_base2012 = 6.21

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Platform Notes (Continued)

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"
   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 js-156-29.jetstream-cloud.org 3.10.0-862.3.3.el7.x86_64 #1 SMP Fri Jun
   15 04:15:27 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux

run-level 5 Sep 14 16:48

SPEC is set to: /home/tmh97/SPEC_OMP2012v1.1

Filesystem Type Size Used Avail Use% Mounted on
/dev/sda1      xfs    60G   40G   21G  66% /

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 SMBIOS" standard.

(End of data from sysinfo program)

General Notes

Jetstream VM Configuration:
   1 VM instance running OMP2012 on single node with 44 VCPUS and 118 GB memory
   44 of the 48 available VCPUS are allocated to KVM

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

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)
# SPEC OMPG2012 Result

**Dell**  
(Test Sponsor: University of Delaware)

**Dell M630 Blade (KVM virtual machine)**

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### OMP2012 license: 056A

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</table>

## Base Compiler Invocation

- **C benchmarks:**  
  - pgcc

- **C++ benchmarks:**  
  - pgc++

- **Fortran benchmarks:**  
  - pgf90

## Base Portability Flags

- 350.md: `-Mfree`
- 357.bt331: `-mcmodel=medium`
- 363.swim: `-mcmodel=medium`

## Base Optimization Flags

- **C benchmarks:**  
  - `-fast` `-Mfprelaxed` `-mp` `-Mipa=fast` `-Mipa=inline`

- **C++ benchmarks:**  
  - `-fast` `-Mfprelaxed` `-mp` `-Mipa=fast` `-Mipa=inline`

- **Fortran benchmarks:**  
  - `-fast` `-Mfprelaxed` `-mp` `-Mipa=fast` `-Mipa=inline`

The flags file that was used to format this result can be browsed at  

You can also download the XML flags source by saving the following link:  

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

Tested with SPEC OMP2012 v1.1.  
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