



SPEC® OMPG2012 Result

Copyright 2012-2018 Standard Performance Evaluation Corporation

Dell

(Test Sponsor: University of Delaware)

SPECompG_peak2012 = Not Run

Dell M630 Blade Server (KVM virtual machine)

SPECompG_base2012 = 6.55

OMP2012 license:056A

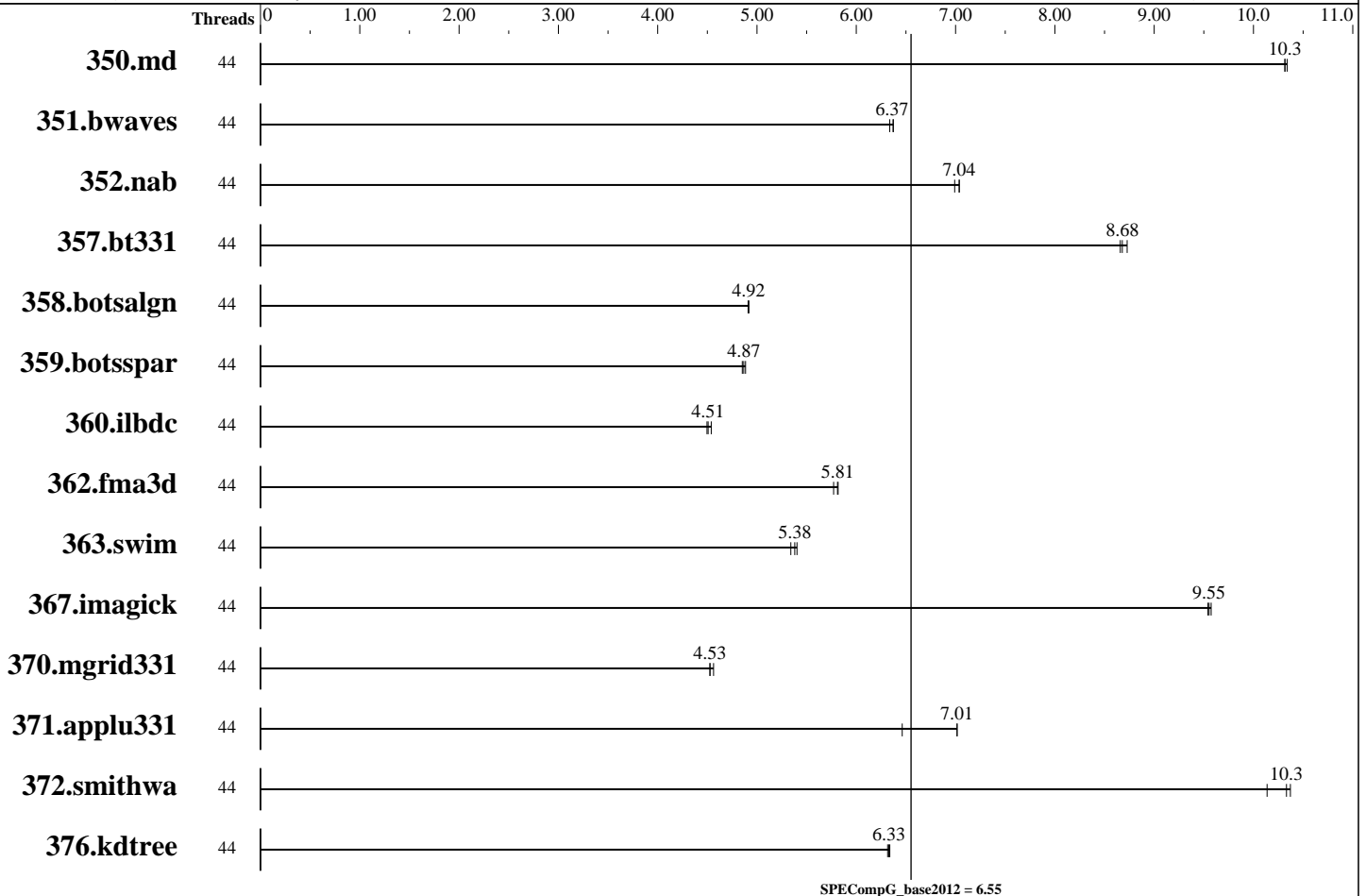
Test sponsor: University of Delaware

Tested by: University of Delaware

Test date: Sep-2018

Hardware Availability: Jun-2018

Software Availability: Jun-2018



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-AEIX) dual SSDs, RAID-1)

Continued on next page

Software

Operating System: CentOS Linux release 7.5.1804 (Core) 3.10.0-862.3.3.el7.x86_64

Compiler: C/C++/Fortran: Version 18.0.3.222 of Intel Parallel Studio XE for Linux Build 20180410

Auto Parallel: No

File System: CephFS

System State: Run level 3 (multi-user)

Base Pointers: 64-bit

Peak Pointers: Not Applicable

Other Software: KVM Version 2.10.0-21



SPEC OMPG2012 Result

Copyright 2012-2018 Standard Performance Evaluation Corporation

Dell

(Test Sponsor: University of Delaware)

SPECompG_peak2012 = Not Run

Dell M630 Blade Server (KVM virtual machine)

SPECompG_base2012 = 6.55

OMP2012 license:056A

Test sponsor: University of Delaware

Tested by: University of Delaware

Test date: Sep-2018

Hardware Availability: Jun-2018

Software Availability: Jun-2018

Other Hardware: None

Base Threads Run: 44

Minimum Peak Threads: --

Maximum Peak Threads: --

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
350.md	44	449	10.3	448	10.3	<u>449</u>	<u>10.3</u>							
351.bwaves	44	715	6.34	711	6.37	<u>711</u>	<u>6.37</u>							
352.nab	44	<u>553</u>	<u>7.04</u>	553	7.04	556	6.99							
357.bt331	44	<u>546</u>	<u>8.68</u>	543	8.73	547	8.66							
358.botsalgn	44	886	4.91	885	4.92	<u>885</u>	<u>4.92</u>							
359.botsspar	44	1082	4.85	1075	4.89	<u>1079</u>	<u>4.87</u>							
360.ilbdc	44	792	4.50	<u>790</u>	<u>4.51</u>	784	4.54							
362.fma3d	44	658	5.77	653	5.82	<u>654</u>	<u>5.81</u>							
363.swim	44	<u>842</u>	<u>5.38</u>	838	5.40	848	5.34							
367.imagick	44	734	9.57	<u>736</u>	<u>9.55</u>	737	9.54							
370.mgrid331	44	977	4.53	969	4.56	<u>976</u>	<u>4.53</u>							
371.applu331	44	938	6.46	<u>864</u>	<u>7.01</u>	864	7.02							
372.smithwa	44	517	10.4	<u>519</u>	<u>10.3</u>	529	10.1							
376.kdtree	44	<u>711</u>	<u>6.33</u>	713	6.32	710	6.34							

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)
running on js-169-102.jetstream-cloud.org Thu Jul 5 12:30:53 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



SPEC OMPG2012 Result

Copyright 2012-2018 Standard Performance Evaluation Corporation

Dell

(Test Sponsor: University of Delaware)

SPECompG_peak2012 = Not Run

Dell M630 Blade Server (KVM virtual machine)

SPECompG_base2012 = 6.55

OMP2012 license:056A

Test sponsor: University of Delaware

Tested by: University of Delaware

Test date: Sep-2018

Hardware Availability: Jun-2018

Software Availability: Jun-2018

Platform Notes (Continued)

```

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
physical 26: cores 0
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

Copyright 2012-2018 Standard Performance Evaluation Corporation

Dell

(Test Sponsor: University of Delaware)

SPECompG_peak2012 = Not Run

Dell M630 Blade Server (KVM virtual machine)

SPECompG_base2012 = 6.55

OMP2012 license:056A

Test sponsor: University of Delaware

Tested by: University of Delaware

Test date: Sep-2018

Hardware Availability: Jun-2018

Software Availability: Jun-2018

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-169-102.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 Jun 27 13:49

```
SPEC is set to: /home/tmh97/SPEC_OMP2012v1.1
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sdal        xfs   60G   39G   22G  64% /
```

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:

```
KMP_STACKSIZE=1G
ulimit -s unlimited
```

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

Copyright 2012-2018 Standard Performance Evaluation Corporation

Dell

(Test Sponsor: University of Delaware)

SPECompG_peak2012 = Not Run

Dell M630 Blade Server (KVM virtual machine)

SPECompG_base2012 = 6.55

OMP2012 license:056A

Test sponsor: University of Delaware

Tested by: University of Delaware

Test date: Sep-2018

Hardware Availability: Jun-2018

Software Availability: Jun-2018

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Base Portability Flags

350.md: -free
357.bt331: -mmodel=medium
363.swim: -mmodel=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>



SPEC OMPG2012 Result

Copyright 2012-2018 Standard Performance Evaluation Corporation

Dell

(Test Sponsor: University of Delaware)

SPECompG_peak2012 = Not Run

Dell M630 Blade Server (KVM virtual machine)

SPECompG_base2012 = 6.55

OMP2012 license:056A

Test sponsor: University of Delaware

Tested by: University of Delaware

Test date: Sep-2018

Hardware Availability: Jun-2018

Software Availability: Jun-2018

SPEC is a registered trademark 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 webmaster@spec.org.

Tested with SPEC OMP2012 v1.1.
Report generated on Wed Dec 19 12:52:12 2018 by SPEC OMP2012 PS/PDF formatter v541.
Originally published on 19 December 2018.