



# SPEC® OMPG2012 Result

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## Cray

(Test Sponsor: Indiana University)

SPECompG\_peak2012 = Not Run

## Cray XC30 (Intel Xeon E5-2697 v2)

SPECompG\_base2012 = 5.60

OMP2012 license:3440A

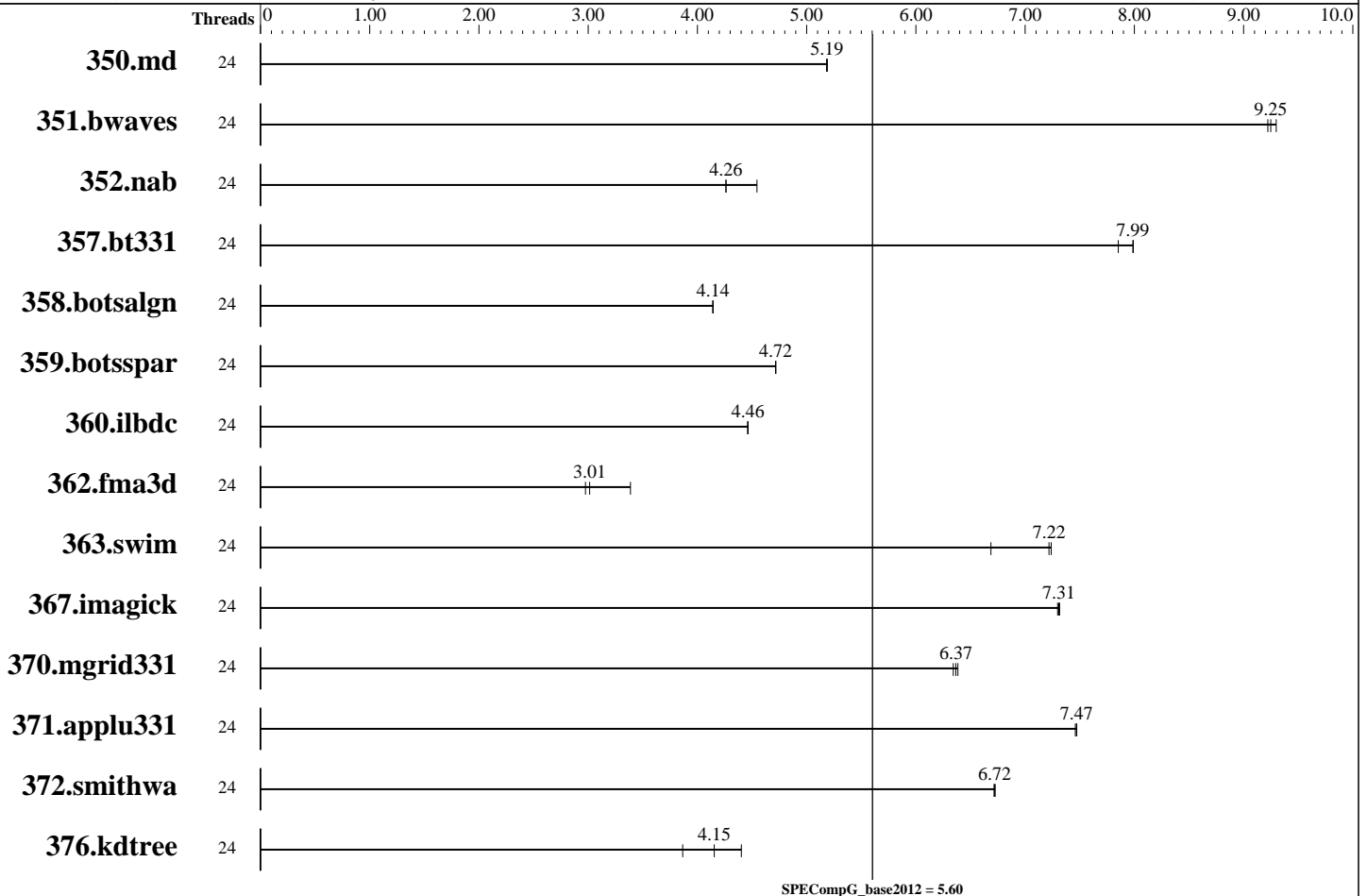
Test sponsor: Indiana University

Tested by: Indiana University

Test date: Jun-2017

Hardware Availability: Apr-2013

Software Availability: Mar-2017



### Hardware

CPU Name: Intel Xeon E5-2697 v2  
 CPU Characteristics: Intel Turbo Boost Technology off, Hyper-Threading on  
 CPU MHz: 2700  
 CPU MHz Maximum: 2700  
 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: 64 GB (8 x 8 GB 2Rx4 PC3-14900R-13, ECC)  
 Disk Subsystem: None  
 Other Hardware: None  
 Base Threads Run: 24

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### Software

Operating System: SUSE Linux Enterprise Server 11 SP3 (x86\_64), Cray Linux Environment 5.2  
 3.0.101-0.46.1\_1.0502.8871-cray\_ari\_c  
 Compiler: C/C++/Fortran: Version 17.5 of PGI Premier Edition  
 Auto Parallel: No  
 File System: Lustre 2.5 (DDN SFA12K) over QDR InfiniBand  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: Not Applicable  
 Other Software: None



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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	24	892	5.19	893	5.18	<b>893</b>	<b>5.19</b>							
351.bwaves	24	487	9.30	<b>490</b>	<b>9.25</b>	491	9.22							
352.nab	24	856	4.55	913	4.26	<b>913</b>	<b>4.26</b>							
357.bt331	24	593	7.99	<b>594</b>	<b>7.99</b>	604	7.85							
358.botsalgn	24	1050	4.14	1050	4.14	<b>1050</b>	<b>4.14</b>							
359.botsspar	24	<b>1113</b>	<b>4.72</b>	1113	4.72	1113	4.72							
360.ilbdc	24	798	4.46	798	4.46	<b>798</b>	<b>4.46</b>							
362.fma3d	24	1122	3.39	<b>1261</b>	<b>3.01</b>	1277	2.98							
363.swim	24	626	7.24	677	6.69	<b>628</b>	<b>7.22</b>							
367.imagick	24	<b>962</b>	<b>7.31</b>	963	7.30	961	7.32							
370.mgrid331	24	<b>694</b>	<b>6.37</b>	697	6.34	692	6.38							
371.applu331	24	<b>811</b>	<b>7.47</b>	811	7.47	812	7.46							
372.smithwa	24	797	6.73	798	6.72	<b>797</b>	<b>6.72</b>							
376.kdtree	24	1164	3.87	<b>1083</b>	<b>4.15</b>	1022	4.40							

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

## Platform Notes

Sysinfo program

/N/dc2/projects/hpc/lijunj/spec/omp2012-1.1-run/bigred2plus3/Docs/sysinfo  
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)  
running on nid00536 Mon Jul 17 20:53:10 2017

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 E5-2697 v2 @ 2.70GHz
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
```

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## Platform Notes (Continued)

From /proc/meminfo

MemTotal: 66072376 kB

HugePages\_Total: 0

Hugepagesize: 2048 kB

/usr/bin/lsb\_release -d

SUSE Linux Enterprise Server 11 (x86\_64)

From /etc/\*release\* /etc/\*version\*

SuSE-release:

SUSE Linux Enterprise Server 11 (x86\_64)

VERSION = 11

PATCHLEVEL = 3

uname -a:

Linux nid00536 3.0.101-0.46.1\_1.0502.8871-cray\_ari\_c #1 SMP Mon Jun 26

15:18:40 UTC 2017 x86\_64 x86\_64 x86\_64 GNU/Linux

SPEC is set to: /N/dc2/projects/hpc/lijunj/spec/omp2012-1.1-run/bigred2plus3

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
10.10.0.171@o2ib:10.10.0.172@o2ib:/dc2	lustre	5.3P	5.0P	253T	96%	/N/dc2

Cannot run dmidecode; consider saying 'chmod +s /usr/sbin/dmidecode'

(End of data from sysinfo program)

## General Notes

Environment Variables:

OMP\_STACKSIZE=1G

ulimit -s unlimited

## Base Compiler Invocation

C benchmarks:

pgcc

C++ benchmarks:

pgc++

Fortran benchmarks:

pgf90



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## Base Portability Flags

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

[http://www.spec.org/omp2012/flags/pgi17\\_linux\\_flags.html](http://www.spec.org/omp2012/flags/pgi17_linux_flags.html)

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

[http://www.spec.org/omp2012/flags/pgi17\\_linux\\_flags.xml](http://www.spec.org/omp2012/flags/pgi17_linux_flags.xml)

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For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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