## SPEC® OMPG2012 Result

**Cray**  
(Test Sponsor: Indiana University)  

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

<table>
<thead>
<tr>
<th>Test Sponsor</th>
<th>Indiana University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tested by</td>
<td>Indiana University</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>SpeCompG_peak2012 = Not Run</th>
</tr>
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<tbody>
<tr>
<td>SPECompG_base2012 = 5.60</td>
</tr>
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</table>

**OMP2012 license**: 3440A  
**Test date**: Jun-2017  
**Hardware Availability**: Apr-2013  
**Software Availability**: Mar-2017

### Threads

<table>
<thead>
<tr>
<th>350.md</th>
<th>24</th>
<th>5.19</th>
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<tbody>
<tr>
<td>351.bwaves</td>
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<tr>
<td>352.nab</td>
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<td>357.bt331</td>
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<td>362.fma3d</td>
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<td>363.swim</td>
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<td>7.22</td>
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<td>367.imagick</td>
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<td>7.31</td>
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<td>370.mgrid331</td>
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<td>371.applu331</td>
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<td>7.47</td>
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<tr>
<td>372.smithwa</td>
<td>24</td>
<td>6.72</td>
</tr>
<tr>
<td>376.kdtree</td>
<td>24</td>
<td>4.15</td>
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</tbody>
</table>

### 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

### 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

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

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### Platform Notes

Sysinfo program  

Revision 563 of 2016-06-10 (097295389c607d8c3b03fa376740a5)  
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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SPECompG_peak2012 = Not Run
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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: -Mfnoextra
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
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

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

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