SPEC® OMPG2012 Result

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Cray

(Test Sponsor: Indiana University)

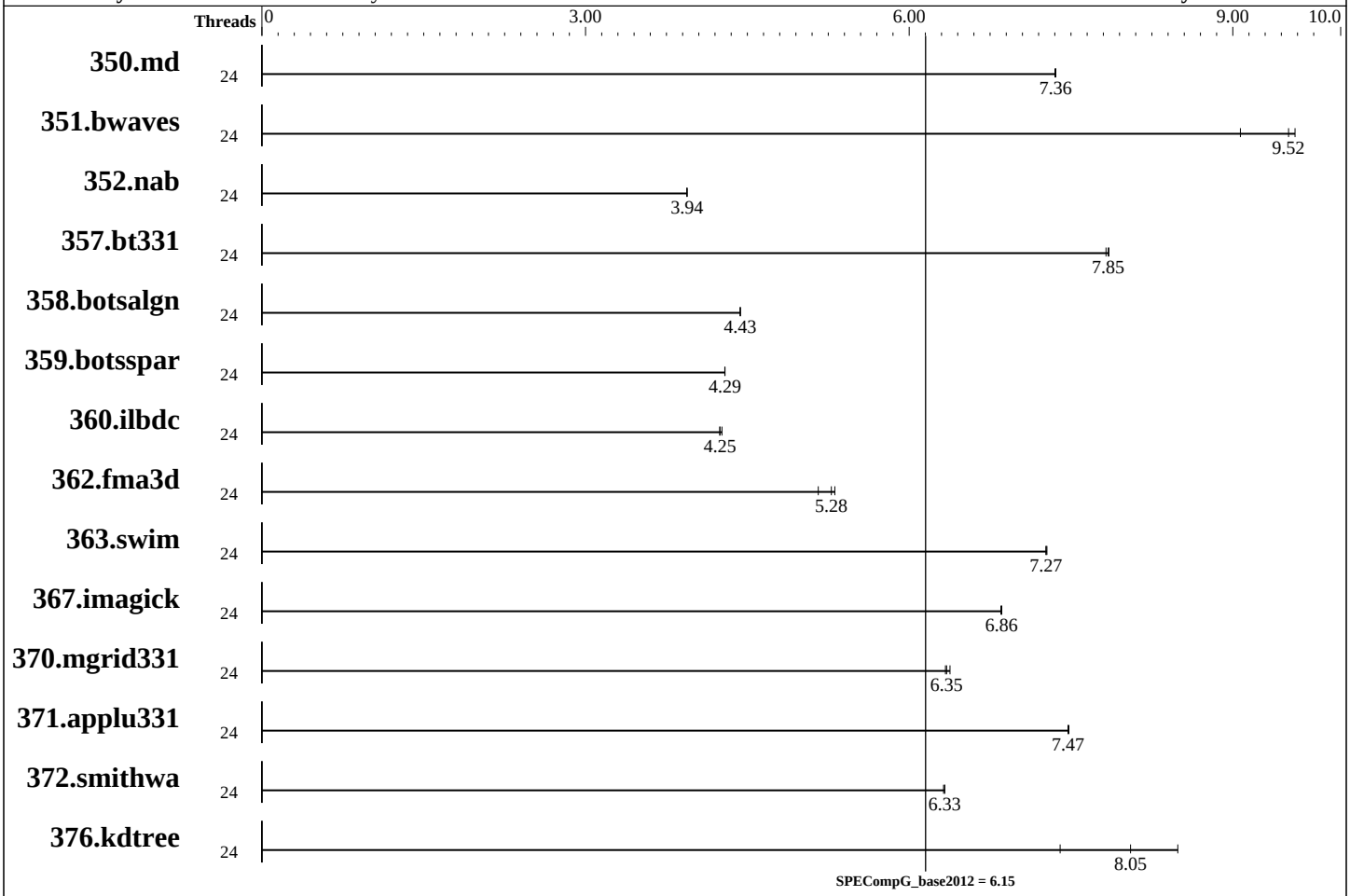
Cray XC30 (Intel Xeon E5-2697 v2)

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 6.15

OMP2012 license: 3440A
Test sponsor: Indiana University
Tested by: Indiana University

Test date: Jul-2017
Hardware Availability: Apr-2013
Software Availability: Dec-2016



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 8.5.5 of Cray Programming Environment
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	629	7.36	**629**	**7.36**	630	7.35							
351.bwaves	24	499	9.07	473	9.58	**476**	**9.52**							
352.nab	24	**987**	**3.94**	988	3.94	987	3.94							
357.bt331	24	606	7.82	**604**	**7.85**	604	7.85							
358.botsalgn	24	**981**	**4.43**	981	4.43	981	4.43							
359.botsspar	24	**1223**	**4.29**	1223	4.29	1224	4.29							
360.ilbdc	24	839	4.24	**838**	**4.25**	835	4.26							
362.fma3d	24	715	5.31	**720**	**5.28**	737	5.16							
363.swim	24	623	7.28	**623**	**7.27**	623	7.27							
367.imagick	24	1025	6.86	**1025**	**6.86**	1026	6.85							
370.mgrid331	24	698	6.34	693	6.38	**696**	**6.35**							
371.applu331	24	**811**	**7.47**	810	7.48	811	7.47							
372.smithwa	24	847	6.33	**847**	**6.33**	848	6.32							
376.kdtree	24	608	7.40	530	8.49	**559**	**8.05**							

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/bigred2plus-cray3/Docs/sysinfo
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)
running on nid00540 Tue Jul 25 17:34:32 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 nid00540 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/bigred2plus-cray3
   Filesystem                              Type    Size  Used Avail Use% Mounted
   on
   10.10.0.171@o2ib:10.10.0.172@o2ib:/dc2 lustre  5.3P  4.9P  329T  94% /N/dc2

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

(End of data from sysinfo program)
```

General Notes

```
Environment Variables:
    OMP_THREAD_STACK_SIZE=1073741824
    ulimit -s unlimited
```

Base Compiler Invocation

C benchmarks:
```
cc
```

C++ benchmarks:
```
CC
```

Fortran benchmarks:
```
ftn
```

Base Portability Flags

350.md: `-f free`
357.bt331: `-hpic -hdynamic`
363.swim: `-hpic -hdynamic`
367.imagick: `-hc99`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/omp2012/flags/cray.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/omp2012/flags/cray.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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