SPEC® OMPG2012 Result

Cray

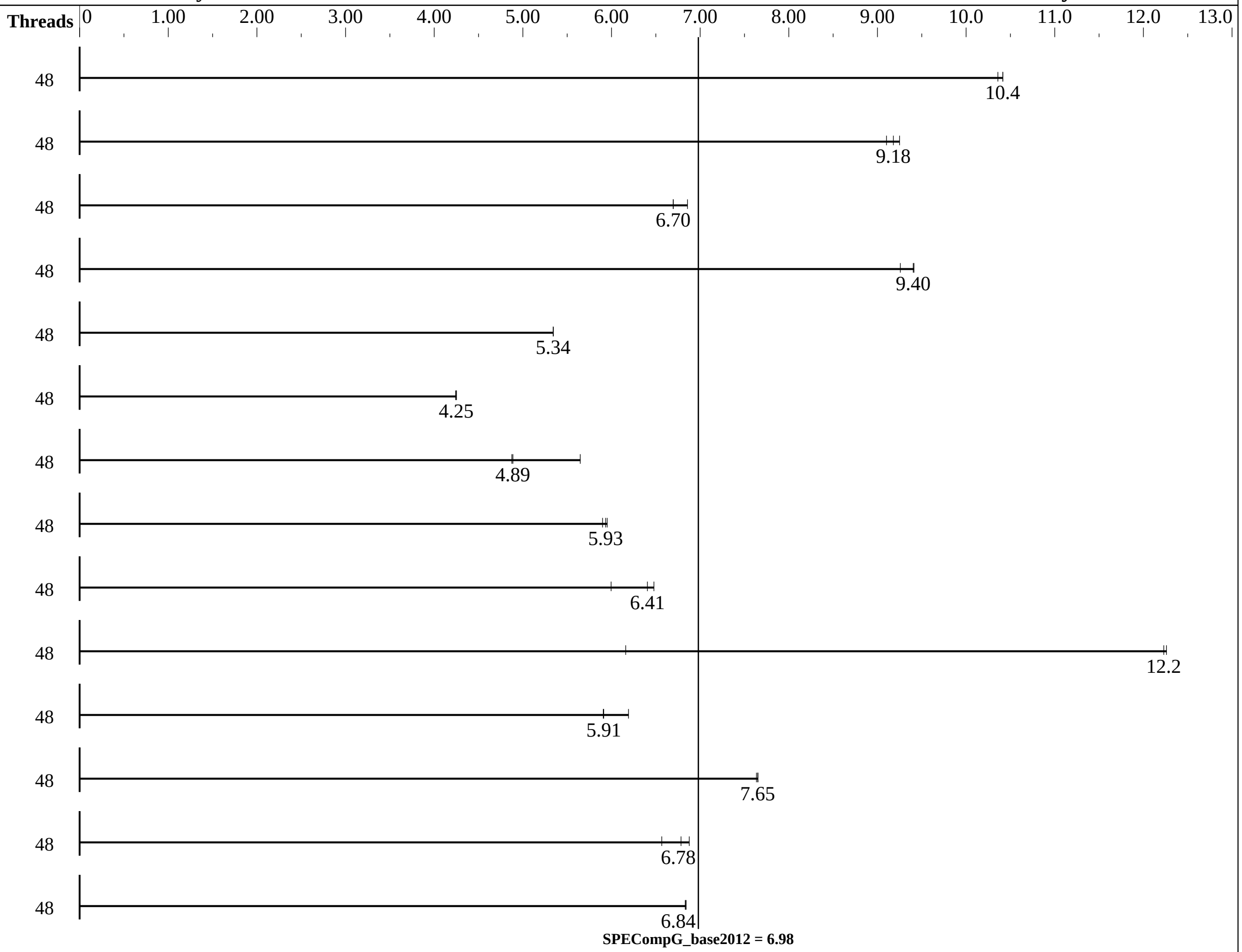
(Test Sponsor: Indiana University)

Cray XC30 (Intel Xeon E5-2697 v2)

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 6.98

OMP2012 license:	3440A	**Test date:**	Jun-2017
Test sponsor:	Indiana University	**Hardware Availability:**	Apr-2013
Tested by:	Indiana University	**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:	48

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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 17.0.2.174 of Intel Parallel Studio XE for Linux Build 20170213
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

Minimum Peak Threads: --
Maximum Peak Threads: --

Results Table

Benchmark	Base Threads	Base Seconds	Base Ratio	Base Seconds	Base Ratio	Base Seconds	Base Ratio	Peak Threads	Peak Seconds	Peak Ratio	Peak Seconds	Peak Ratio	Peak Seconds	Peak Ratio
350.md	48	**445**	**10.4**	445	10.4	447	10.4							
351.bwaves	48	490	9.25	**493**	**9.18**	498	9.10							
352.nab	48	**581**	**6.70**	581	6.70	567	6.86							
357.bt331	48	504	9.41	**504**	**9.40**	512	9.26							
358.botsalgn	48	814	5.34	**814**	**5.34**	814	5.34							
359.botsspar	48	1238	4.24	1235	4.25	**1236**	**4.25**							
360.ilbdc	48	730	4.88	630	5.65	**728**	**4.89**							
362.fma3d	48	644	5.90	**640**	**5.93**	638	5.95							
363.swim	48	756	6.00	**707**	**6.41**	699	6.48							
367.imagick	48	1141	6.16	**575**	**12.2**	573	12.3							
370.mgrid331	48	714	6.19	748	5.91	**748**	**5.91**							
371.applu331	48	792	7.65	794	7.64	**792**	**7.65**							
372.smithwa	48	816	6.57	779	6.88	**790**	**6.78**							
376.kdtree	48	**658**	**6.84**	658	6.84	659	6.83							

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/Docs/sysinfo
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)
running on nid00536 Sun Jun 18 07:38:40 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 Sat Oct 22
   15:27:12 UTC 2016 x86_64 x86_64 x86_64 GNU/Linux


SPEC is set to: /N/dc2/projects/hpc/lijunj/spec/omp2012-1.1-run/bigred2plus
   Filesystem            Type     Size   Used Avail Use% Mounted on
   10.10.0.171@o2ib:/dc2 lustre   5.3P   5.0P  190T  97% /N/dc2

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

(End of data from sysinfo program)
```

General Notes

```
Environment Variables:
    KMP_STACKSIZE=1G
    ulimit -s unlimited
```

Base Compiler Invocation

C benchmarks:
    icc

C++ benchmarks:
    icpc

Fortran benchmarks:
    ifort

Base Portability Flags

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

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

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