SPEC® OMPG2012 Result
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Cray
(Test Sponsor: Indiana University)

Cray XE6

$SPECompG\_peak2012 =$ Not Run

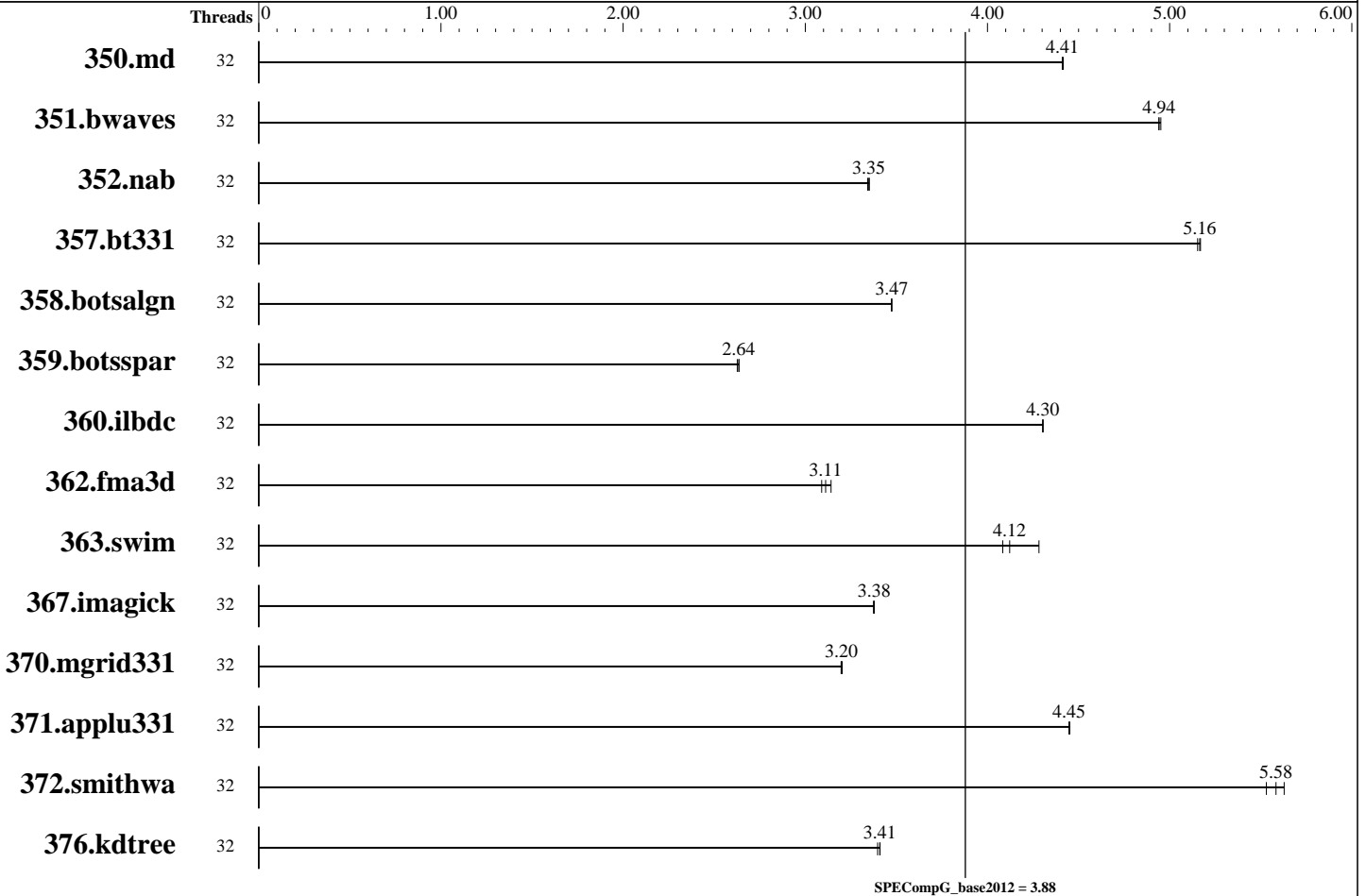$SPECompG\_base2012 =$ 3.88

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

Test date: Oct-2013
Hardware Availability: Apr-2013
Software Availability: Aug-2013

Benchmark	Threads	Result
350.md	32	4.41
351.bwaves	32	4.94
352.nab	32	3.35
357.bt331	32	5.16
358.botsalgn	32	3.47
359.botsspar	32	2.64
360.ilbdc	32	4.30
362.fma3d	32	3.11
363.swim	32	4.12
367.imagick	32	3.38
370.mgrid331	32	3.20
371.applu331	32	4.45
372.smithwa	32	5.58
376.kdtree	32	3.41

SPECompG_base2012 = 3.88

Hardware

CPU Name: AMD Opteron 6380
CPU Characteristics: AMD Turbo CORE Technology up to 3.4GHz, Turbo CORE on
CPU MHz: 2500
CPU MHz Maximum: 3400
FPU: Integrated
CPU(s) enabled: 32 cores, 2 chips, 16 cores/chip
CPU(s) orderable: 1-2 chips
Primary Cache: 512 KB I on chip per chip, 64 KB I shared / 2 cores; 16 KB D on chip per core
Secondary Cache: 16 MB I+D on chip per chip, 2 MB shared / 2 cores
L3 Cache: 16 MB I+D on chip per chip, 8 MB shared / 8 cores
Other Cache: None
Memory: 64 GB (8 x 8 GB 2Rx4 PC3L-12800R-11, ECC)
Disk Subsystem: None
Other Hardware: None

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Software

Operating System: SUSE Linux Enterprise Server 11 (x86_64), Cray Linux Environment 4.1 Kernel 2.6.32.59-0.7.1_1.0401.6845-cray_gem_c 2.6.32.59-0.7.1_1.0401.6845-cray_gem_c
Compiler: C/C++/Fortran: Version 13.1.3 of Intel Composer XE 2013 for Linux Build 20120607
Auto Parallel: No
File System: NFSv3 (IBM N5500 NAS) over Gb ethernet
System State: Multi-user, run level 3
Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other Software: None

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Base Threads Run: 32
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	32	1048	4.42	**1049**	**4.41**	1050	4.41							
351.bwaves	32	917	4.94	915	4.95	**917**	**4.94**							
352.nab	32	1164	3.34	**1162**	**3.35**	1161	3.35							
357.bt331	32	917	5.17	**918**	**5.16**	920	5.15							
358.botsalgn	32	1252	3.47	1252	3.47	**1252**	**3.47**							
359.botsspar	32	1999	2.63	**1992**	**2.64**	1992	2.64							
360.ilbdc	32	**827**	**4.30**	827	4.30	827	4.31							
362.fma3d	32	**1221**	**3.11**	1230	3.09	1210	3.14							
363.swim	32	1058	4.28	**1099**	**4.12**	1109	4.08							
367.imagick	32	2081	3.38	2083	3.37	**2082**	**3.38**							
370.mgrid331	32	**1382**	**3.20**	1383	3.20	1380	3.20							
371.applu331	32	1362	4.45	**1362**	**4.45**	1361	4.45							
372.smithwa	32	**960**	**5.58**	952	5.63	969	5.53							
376.kdtree	32	**1320**	**3.41**	1319	3.41	1325	3.40							

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

Platform Notes

```
    Sysinfo program /N/soft/mason/omp2012-1.0/omp2012_br2/Docs/sysinfo
    $Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963a1e67685e50647
    running on nid00013 Fri Oct 25 08:47:32 2013

    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 : AMD Opteron(tm) Processor 6380
          2 "physical id"s (chips)
          32 "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 : 16
          siblings  : 16
          physical 0: cores 0 1 2 3 4 5 6 7
          physical 1: cores 0 1 2 3 4 5 6 7
       cache size : 2048 KB
```

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Platform Notes (Continued)

```
From /proc/meminfo
   MemTotal:       66178284 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 = 1
   mazama-release:
       Mazama Wed Oct 31 02:36:27 CDT 2012 on hssbld0 by bwdev
       lsb-cray-mazama-7.0.0

uname -a:
   Linux nid00013 2.6.32.59-0.7.1_1.0401.6845-cray_gem_c #1 SMP Thu Nov 15
   00:24:59 UTC 2012 x86_64 x86_64 x86_64 GNU/Linux


SPEC is set to: /N/soft/mason/omp2012-1.0/omp2012_br2
   Filesystem      Type  Size  Used Avail Use% Mounted on
   /N/soft         dvs   1.7T  1.5T  111G  94% /N/soft

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

(End of data from sysinfo program)
```

General Notes

```
Environment:
   KMP_SCHEDULE=static,balanced
   KMP_BLOCKTIME=infinite
   KMP_LIBRARY=throughput
   KMP_STACKSIZE=31m
   ENV_OMP_NESTED=FALSE
   OMP_NESTED=FALSE
   OMP_DYNAMIC=FALSE
   OMP_NUM_THREADS=32
   threads = 32
```

Base Compiler Invocation

C benchmarks:
```
   icc
```

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Base Compiler Invocation (Continued)

C++ benchmarks:
        icpc

Fortran benchmarks:
        ifort

Base Portability Flags

        350.md: -free
        367.imagick: -std=c99

Base Optimization Flags

C benchmarks:
        -O3 -ansi-alias -no-prec-div -openmp -shared-intel -mcmodel=medium

C++ benchmarks:
        -O3 -ansi-alias -no-prec-div -openmp -shared-intel -mcmodel=medium

Fortran benchmarks:
        -O3 -no-prec-div -openmp -shared-intel -mcmodel=medium

The flags file that was used to format this result can be browsed at
http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20131127.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20131127.xml

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For other inquiries, please contact webmaster@spec.org.

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