SPEC® OMPG2012 Result

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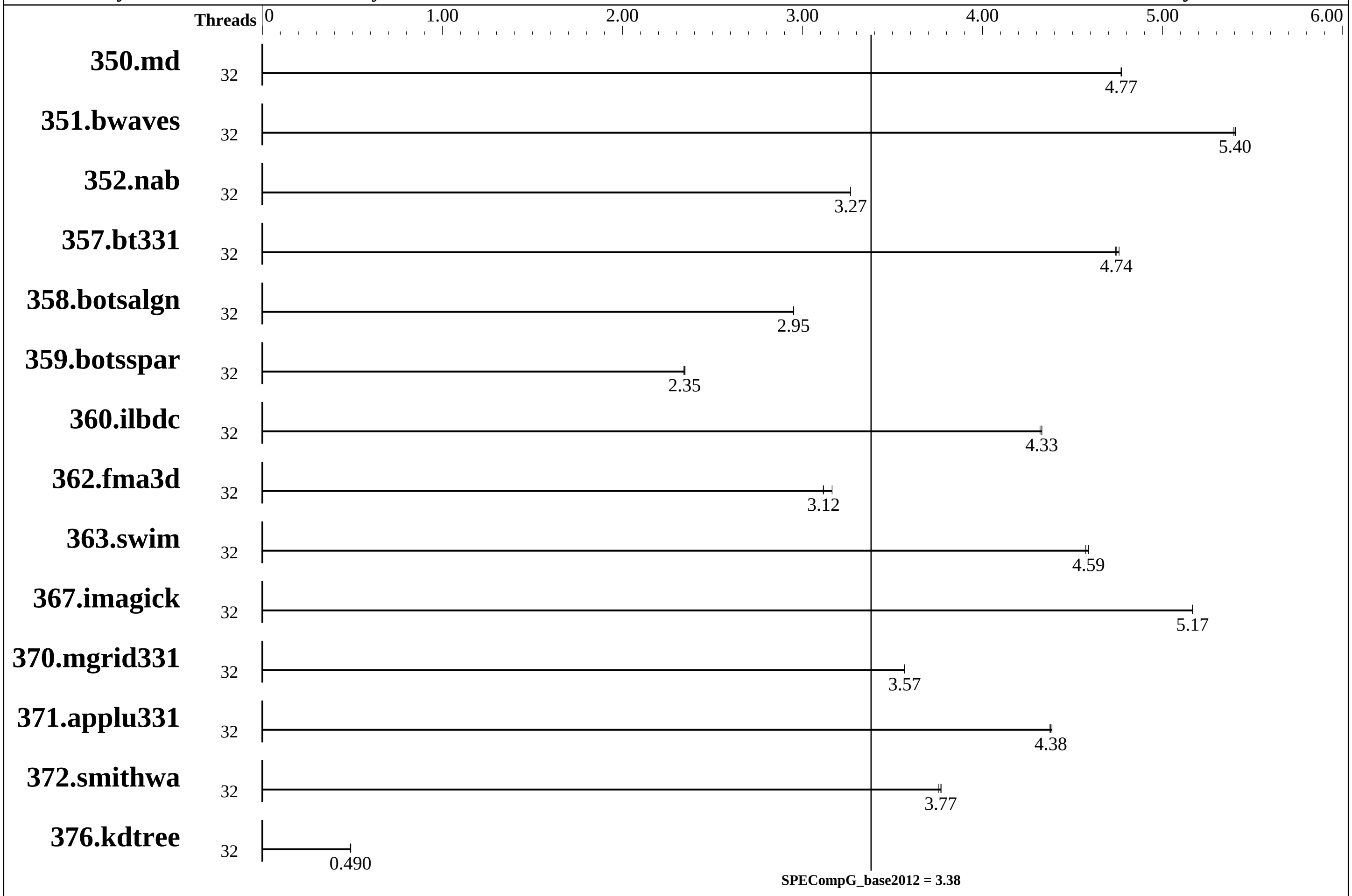
Cray
(Test Sponsor: Indiana University)

Cray XE6

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 3.38

OMP2012 license:	3440A	**Test date:**	Aug-2014
Test sponsor:	Indiana University	**Hardware Availability:**	Apr-2013
Tested by:	Indiana University	**Software Availability:**	Jul-2014



Hardware

CPU Name:	AMD Opteron 6380
CPU Characteristics:	AMD Turbo CORE Technology up to 3.4GHz, Turbo CORE off
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 4.2 Kernel 2.6.32.59-0.7.1_1.0402.7496-cray_gem_c
Compiler:	C/C++/Fortran: Version 8.3.1 of Cray Compiler Environment
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

	Base							Peak						
Benchmark	**Threads**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Threads**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
350.md	32	**971**	**4.77**	971	4.77	970	4.77							
351.bwaves	32	838	5.41	840	5.39	**839**	**5.40**							
352.nab	32	1190	3.27	1190	3.27	**1190**	**3.27**							
357.bt331	32	**999**	**4.74**	996	4.76	1000	4.74							
358.botsalgn	32	1474	2.95	**1474**	**2.95**	1474	2.95							
359.botsspar	32	2242	2.34	**2238**	**2.35**	2236	2.35							
360.ilbdc	32	824	4.32	822	4.33	**822**	**4.33**							
362.fma3d	32	1220	3.12	**1219**	**3.12**	1201	3.16							
363.swim	32	991	4.57	987	4.59	**987**	**4.59**							
367.imagick	32	1360	5.17	**1361**	**5.17**	1361	5.17							
370.mgrid331	32	1239	3.57	**1239**	**3.57**	1239	3.57							
371.applu331	32	1382	4.39	**1384**	**4.38**	1385	4.37							
372.smithwa	32	1422	3.77	**1422**	**3.77**	1427	3.76							
376.kdtree	32	**9189**	**0.490**	9155	0.492	9206	0.489							

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 nid01041 Fri Aug 15 13:22:12 2014

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:       66178208 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 Aug 28 02:06:30 CDT 2013 on hssbld0 by bwdev
      lsb-cray-mazama-7.1.0

uname -a:
   Linux nid01041 2.6.32.59-0.7.1_1.0402.7496-cray_gem_c #1 SMP Wed Feb 26
   05:58:57 UTC 2014 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   1.9T  1.6T  265G  86% /N/soft

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

(End of data from sysinfo program)
```

General Notes

```
Software Environment:
  OMP_NESTED=FALSE
    Enables (TRUE) or  disables  (FALSE)  nested  parallelism.
  OMP_DYNAMIC=FALSE
    Enables (true) or disables (false) the dynamic adjustment of the number of threads.
  OMP_NUM_THREADS=32
    Sets  the maximum number of threads to use for OpenMP parallel
    regions if no other value is specified in the  program itself.
```

Base Compiler Invocation

C benchmarks:
    cc

C++ benchmarks:
    CC

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Base Compiler Invocation (Continued)

Fortran benchmarks:
`ftn`

Base Portability Flags

350.md: `-f free`

Base Optimization Flags

C benchmarks:
`-O3 -h pragma=omp -hpic -dynamic`

C++ benchmarks:
`-O3 -h pragma=omp -hpic -dynamic`

Fortran benchmarks:
`-O3 -h omp -hpic -dynamic`

The flags file that was used to format this result can be browsed at
http://www.spec.org/omp2012/flags/iu-cray-8.3.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/iu-cray-8.3.xml

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

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