SPEC® OMPG2012 Result

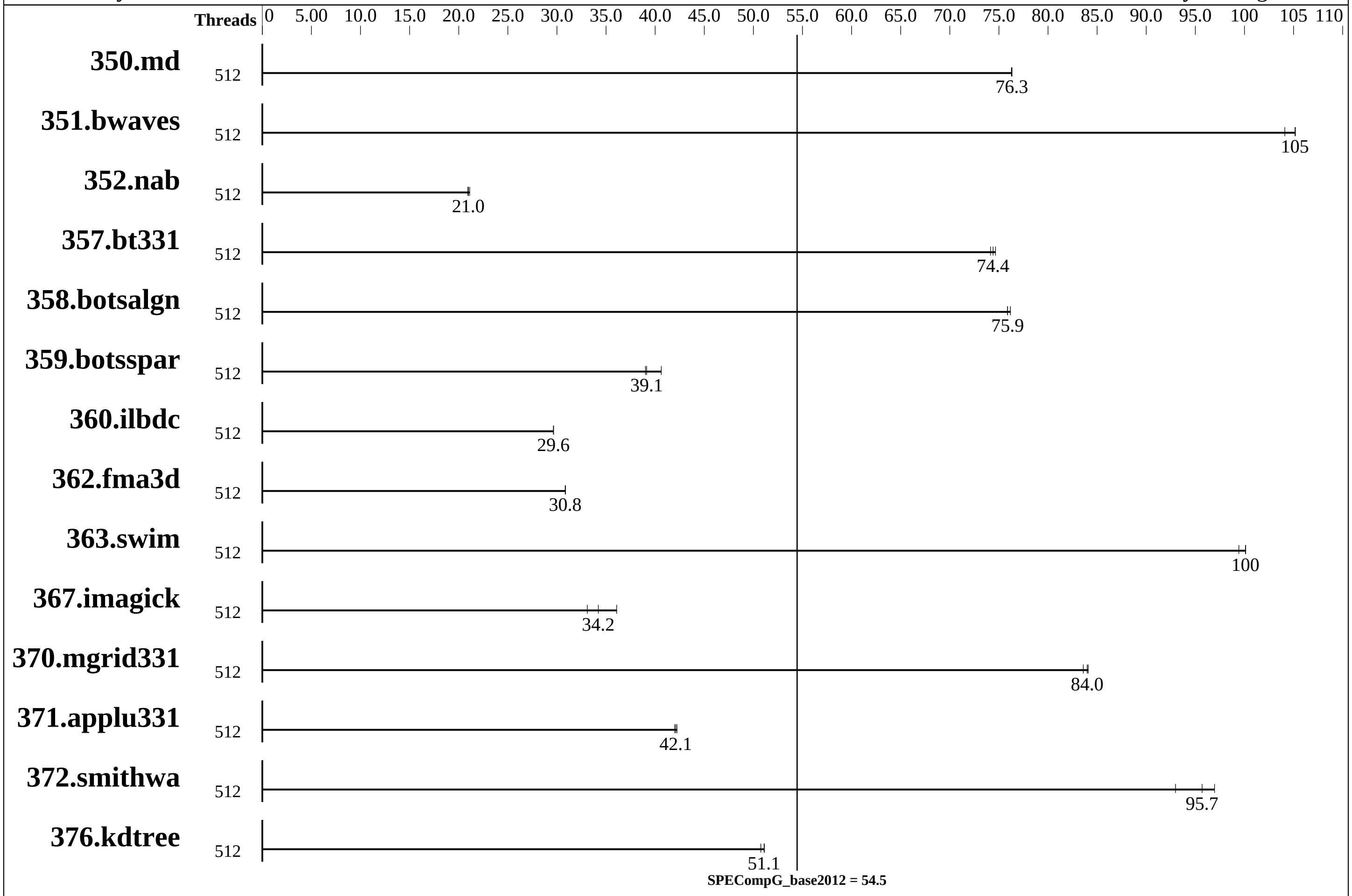
SGI

SGI UV 2000 (Intel Xeon E5-4650 2.7GHz)

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 54.5

OMP2012 license:	14	**Test date:**	Oct-2012
Test sponsor:	SGI	**Hardware Availability:**	Jun-2012
Tested by:	SGI	**Software Availability:**	Aug-2012



Hardware

CPU Name:	Intel Xeon E5-4650
CPU Characteristics:	Intel Turbo Boost Technology up to 3.30 GHz
CPU MHz:	2700
CPU MHz Maximum:	3300
FPU:	Integrated
CPU(s) enabled:	512 cores, 64 chips, 8 cores/chip, 2 threads/core
CPU(s) orderable:	2-256 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:	20 MB I+D on chip per chip
Other Cache:	None
Memory:	4 TB (512 x 8 GB 2Rx4 PC3-12800R-11, ECC)
Disk Subsystem:	14.4 TB RAID 6 48 x 300 GB SAS (HITACHI - ULTRASTAR C10K600 SAS-6GBITS 10000RPM)
Other Hardware:	None

Continued on next page

Software

Operating System:	SUSE Linux Enterprise Server 11 (x86_64) SP2 3.0.26-0.7-default #1 SMP
Compiler:	C/C++/Fortran: Version 13.0 of Intel Composer XE 2013 Build 20120731;
Auto Parallel:	No
File System:	xfs
System State:	Run level 3 (Multi-user)
Base Pointers:	64-bit
Peak Pointers:	Not Applicable
Other Software:	SGI Accelerate 1.4, Build 706r14.sles11sp2-1204092008 SGI Foundation Software 2.6, Build 706r14.sles11sp2-1204092008

Base Threads Run: 512
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	512	60.7	76.3	**60.7**	**76.3**	60.7	76.3							
351.bwaves	512	43.5	104	**43.1**	**105**	43.1	105							
352.nab	512	**185**	**21.0**	186	20.9	184	21.1							
357.bt331	512	**63.7**	**74.4**	63.5	74.7	63.9	74.1							
358.botsalgn	512	**57.3**	**75.9**	57.3	75.9	57.1	76.2							
359.botsspar	512	129	40.6	**134**	**39.1**	135	39.0							
360.ilbdc	512	120	29.7	**120**	**29.6**	120	29.6							
362.fma3d	512	**123**	**30.8**	123	30.9	123	30.8							
363.swim	512	45.2	100	**45.3**	**100**	45.6	99.4							
367.imagick	512	195	36.1	212	33.1	**205**	**34.2**							
370.mgrid331	512	**52.6**	**84.0**	52.6	84.1	52.9	83.6							
371.applu331	512	144	42.2	**144**	**42.1**	144	42.0							
372.smithwa	512	**56.0**	**95.7**	55.3	97.0	57.6	93.0							
376.kdtree	512	**88.1**	**51.1**	88.6	50.8	88.0	51.1							

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

Submit Notes

```
The config file option 'submit' was used.
For all benchmarks, threads were bound to cores using
the following submit command:
     dplace -x2 $command
This binds threads in order of creation, beginning
with the master thread on logical cpu 0, the first slave
thread on logical cpu 1, and so on.  The -x2 flag instructs
dplace to skip placement of the lightweight OpenMP monitor
thread, which is created prior to the slave threads.
```

Operating System Notes

```
Software Environment:
    export KMP_AFFINITY=disabled
    export KMP_STACKSIZE=200M
    export KMP_SCHEDULE=static,balanced
    export OMP_DYNAMIC FALSE
    limit -s unlimited
```

Continued on next page

Operating System Notes (Continued)

```
Hyperthreading is enabled but not used on the system.
```

Platform Notes

```
Sysinfo program /store/hfeng/omp2012/1.0/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963a1e67685e50647
running on cy022-sys Tue Oct 23 03:06:18 2012

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 E5-4650 0 @ 2.70GHz
      64 "physical id"s (chips)
      1024 "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 : 8
      siblings  : 16
      physical 0: cores 0 1 2 3 4 5 6 7
      physical 1: cores 0 1 2 3 4 5 6 7
      physical 2: cores 0 1 2 3 4 5 6 7
      physical 3: cores 0 1 2 3 4 5 6 7
      physical 4: cores 0 1 2 3 4 5 6 7
      physical 5: cores 0 1 2 3 4 5 6 7
      physical 6: cores 0 1 2 3 4 5 6 7
      physical 7: cores 0 1 2 3 4 5 6 7
      physical 8: cores 0 1 2 3 4 5 6 7
      physical 9: cores 0 1 2 3 4 5 6 7
      physical 10: cores 0 1 2 3 4 5 6 7
      physical 11: cores 0 1 2 3 4 5 6 7
      physical 12: cores 0 1 2 3 4 5 6 7
      physical 13: cores 0 1 2 3 4 5 6 7
      physical 14: cores 0 1 2 3 4 5 6 7
      physical 15: cores 0 1 2 3 4 5 6 7
      physical 16: cores 0 1 2 3 4 5 6 7
      physical 17: cores 0 1 2 3 4 5 6 7
      physical 18: cores 0 1 2 3 4 5 6 7
      physical 19: cores 0 1 2 3 4 5 6 7
      physical 20: cores 0 1 2 3 4 5 6 7
      physical 21: cores 0 1 2 3 4 5 6 7
      physical 22: cores 0 1 2 3 4 5 6 7
      physical 23: cores 0 1 2 3 4 5 6 7
      physical 24: cores 0 1 2 3 4 5 6 7
      physical 25: cores 0 1 2 3 4 5 6 7
      physical 26: cores 0 1 2 3 4 5 6 7
      physical 27: cores 0 1 2 3 4 5 6 7
      physical 28: cores 0 1 2 3 4 5 6 7
      physical 29: cores 0 1 2 3 4 5 6 7
```

Continued on next page

Platform Notes (Continued)

```
         physical 30: cores 0 1 2 3 4 5 6 7
         physical 31: cores 0 1 2 3 4 5 6 7
         physical 32: cores 0 1 2 3 4 5 6 7
         physical 33: cores 0 1 2 3 4 5 6 7
         physical 34: cores 0 1 2 3 4 5 6 7
         physical 35: cores 0 1 2 3 4 5 6 7
         physical 36: cores 0 1 2 3 4 5 6 7
         physical 37: cores 0 1 2 3 4 5 6 7
         physical 38: cores 0 1 2 3 4 5 6 7
         physical 39: cores 0 1 2 3 4 5 6 7
         physical 40: cores 0 1 2 3 4 5 6 7
         physical 41: cores 0 1 2 3 4 5 6 7
         physical 42: cores 0 1 2 3 4 5 6 7
         physical 43: cores 0 1 2 3 4 5 6 7
         physical 44: cores 0 1 2 3 4 5 6 7
         physical 45: cores 0 1 2 3 4 5 6 7
         physical 46: cores 0 1 2 3 4 5 6 7
         physical 47: cores 0 1 2 3 4 5 6 7
         physical 48: cores 0 1 2 3 4 5 6 7
         physical 49: cores 0 1 2 3 4 5 6 7
         physical 50: cores 0 1 2 3 4 5 6 7
         physical 51: cores 0 1 2 3 4 5 6 7
         physical 52: cores 0 1 2 3 4 5 6 7
         physical 53: cores 0 1 2 3 4 5 6 7
         physical 54: cores 0 1 2 3 4 5 6 7
         physical 55: cores 0 1 2 3 4 5 6 7
         physical 56: cores 0 1 2 3 4 5 6 7
         physical 57: cores 0 1 2 3 4 5 6 7
         physical 58: cores 0 1 2 3 4 5 6 7
         physical 59: cores 0 1 2 3 4 5 6 7
         physical 60: cores 0 1 2 3 4 5 6 7
         physical 61: cores 0 1 2 3 4 5 6 7
         physical 62: cores 0 1 2 3 4 5 6 7
         physical 63: cores 0 1 2 3 4 5 6 7
      cache size : 20480 KB

   From /proc/meminfo
      MemTotal:       4102393252 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 = 2
      sgi-accelerate-release: SGI Accelerate 1.4, Build 706r14.sles11sp2-1204092008
      sgi-foundation-release: SGI Foundation Software 2.6, Build
      706r14.sles11sp2-1204092008
```

Continued on next page

Platform Notes (Continued)

```
    sgi-mpi-release: SGI MPI 1.4, Build 706r14.sles11sp2-1204092008
    sgi-release: SGI Performance Suite 1.4, Build 706r14.sles11sp2-1204092008
    sgi-upc-release: SGI UPC 1.4, Build 706r14.sles11sp2-1204092008
    sgi-xvm-release: SGI XVM 6.6, Build 706r14.sles11sp2-1204092008

 uname -a:
    Linux cy022-sys 3.0.38-0.5-default #1 SMP Fri Aug 3 09:02:17 UTC 2012
    (358029e) x86_64 x86_64 x86_64 GNU/Linux

 run-level 3 Oct 22 05:28 last=S

 SPEC is set to: /store/hfeng/omp2012/1.0
    Filesystem            Type  Size  Used Avail Use% Mounted on
    /dev/lxvm/cy022-store xfs   9.9T  1.6T  8.3T  17% /store

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

 (End of data from sysinfo program)
```

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Base Portability Flags

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

Base Optimization Flags

C benchmarks:
-O3 -xAVX -ipo1 -openmp -ansi-alias -mcmodel=medium -shared-intel

C++ benchmarks:
-O3 -xAVX -ipo1 -openmp -ansi-alias -mcmodel=medium -shared-intel

Fortran benchmarks:
-O3 -xAVX -ipo1 -openmp -mcmodel=medium -shared-intel

SGI

SGI UV 2000 (Intel Xeon E5-4650 2.7GHz)

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 54.5

OMP2012 license:	14	**Test date:**	Oct-2012
Test sponsor:	SGI	**Hardware Availability:**	Jun-2012
Tested by:	SGI	**Software Availability:**	Aug-2012

The flags file that was used to format this result can be browsed at
http://www.spec.org/omp2012/flags/SGI-OMP2012-ic13.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/SGI-OMP2012-ic13.xml

Tested with SPEC OMP2012 v1.0.
Report generated on Tue Jul 22 13:36:13 2014 by SPEC OMP2012 PS/PDF formatter v541.
Originally published on 12 November 2012.