SPEC® OMPG2012 Result

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SGI

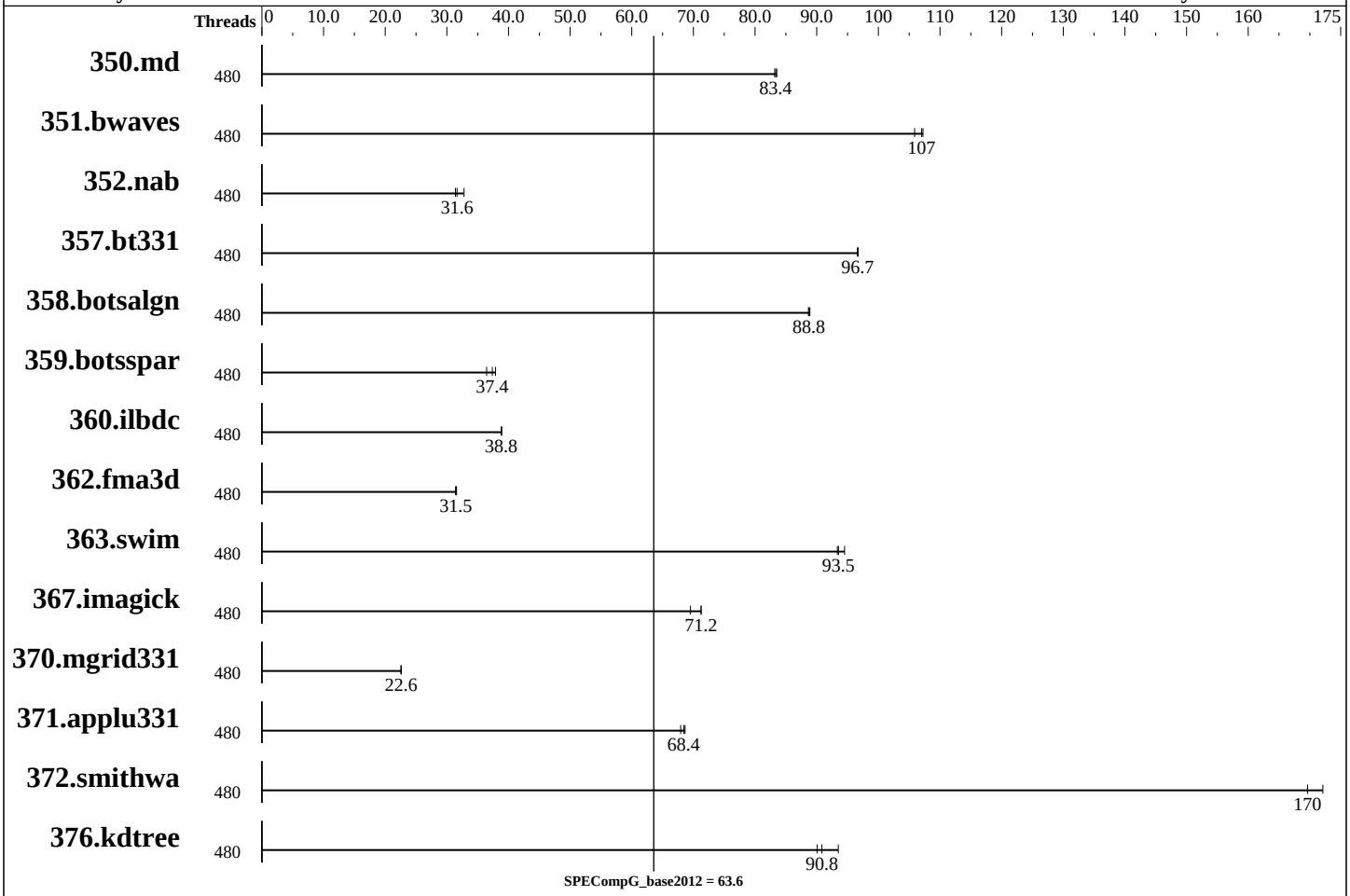
SGI UV 300 (Intel Xeon E7-8890 v2, 2.80 GHz)

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 63.6

OMP2012 license: 14
Test sponsor: SGI
Tested by: SGI

Test date: Apr-2015
Hardware Availability: Dec-2014
Software Availability: Dec-2014



Hardware

CPU Name:	Intel Xeon E7-8890 v2
CPU Characteristics:	Intel Turbo Boost Technology up to 3.4 GHz
CPU MHz:	2800
CPU MHz Maximum:	3400
FPU:	Integrated
CPU(s) enabled:	480 cores, 32 chips, 15 cores/chip
CPU(s) orderable:	4-32 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:	37.5 MB I+D on chip per chip
Other Cache:	None
Memory:	4 TB (256 x 16 GB 2Rx4 PC3-14900R-13, ECC, running at 1333 MHz)
Disk Subsystem:	1 x 160 GB SSD (Intel SSD 320 Series, SATA II)
Other Hardware:	None

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Software

Operating System:	SUSE Linux Enterprise Server 11 (x86_64) SP3 Kernel 3.0.101-0.46-default
Compiler:	C/C++/Fortran: Version 14.0.1.106 of Intel Composer XE for Linux, Build 20131008
Auto Parallel:	No
File System:	ext3
System State:	Multi-user, run level 3
Base Pointers:	64-bit
Peak Pointers:	Not Applicable
Other Software:	SGI Accelerate 1.9 (Build 711rp57.sles11sp3-1502132100), SGI Foundation Software 2.11 (Build 711rp57.sles11sp3-1502132100)

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Base Threads Run: 480
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	480	**55.5**	**83.4**	55.7	83.2	55.4	83.5							
351.bwaves	480	42.2	107	**42.3**	**107**	42.8	106							
352.nab	480	124	31.4	119	32.8	**123**	**31.6**							
357.bt331	480	**49.0**	**96.7**	49.0	96.7	49.1	96.6							
358.botsalgn	480	48.9	88.9	**49.0**	**88.8**	49.1	88.7							
359.botsspar	480	139	37.9	**140**	**37.4**	144	36.5							
360.ilbdc	480	91.7	38.8	**91.7**	**38.8**	91.5	38.9							
362.fma3d	480	121	31.4	**121**	**31.5**	120	31.6							
363.swim	480	48.5	93.4	**48.4**	**93.5**	47.9	94.5							
367.imagick	480	98.7	71.3	**98.7**	**71.2**	101	69.5							
370.mgrid331	480	**196**	**22.6**	195	22.6	196	22.5							
371.applu331	480	89.2	67.9	88.3	68.6	**88.6**	**68.4**							
372.smithwa	480	**31.6**	**170**	31.1	172	31.6	170							
376.kdtree	480	48.1	93.5	**49.5**	**90.8**	50.0	90.1							

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

```
Transparent Hugepages :
    Transparent Hugepages are disabled by
    echo never > /sys/kernel/mm/transparent_hugepage/enabled

Software Environment:
    export KMP_AFFINITY=disabled
    export KMP_STACKSIZE=200M
```

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Operating System Notes (Continued)

```
export KMP_SCHEDULE=static,balanced
export OMP_DYNAMIC=FALSE
ulimit -s unlimited
```

Platform Notes

```
Intel Hyperthreading set to Disabled
BT Mode set to Auto-select
```

General Notes

```
372.smithwa (base): "redundant" src.alt was used.
```

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`

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The flags files that were used to format this result can be browsed at
http://www.spec.org/omp2012/flags/SGI-OMP2012-ic14.20150430.html
http://www.spec.org/omp2012/flags/SGI-UV300-RevA.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/omp2012/flags/SGI-OMP2012-ic14.20150430.xml
http://www.spec.org/omp2012/flags/SGI-UV300-RevA.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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