



SPEC® OMPG2012 Result

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Intel

SPECompG_peak2012 = 6.29

Intel R2208GZ4GC (Intel Xeon E5-2697 v2)

SPECompG_base2012 = 5.81

OMP2012 license:13

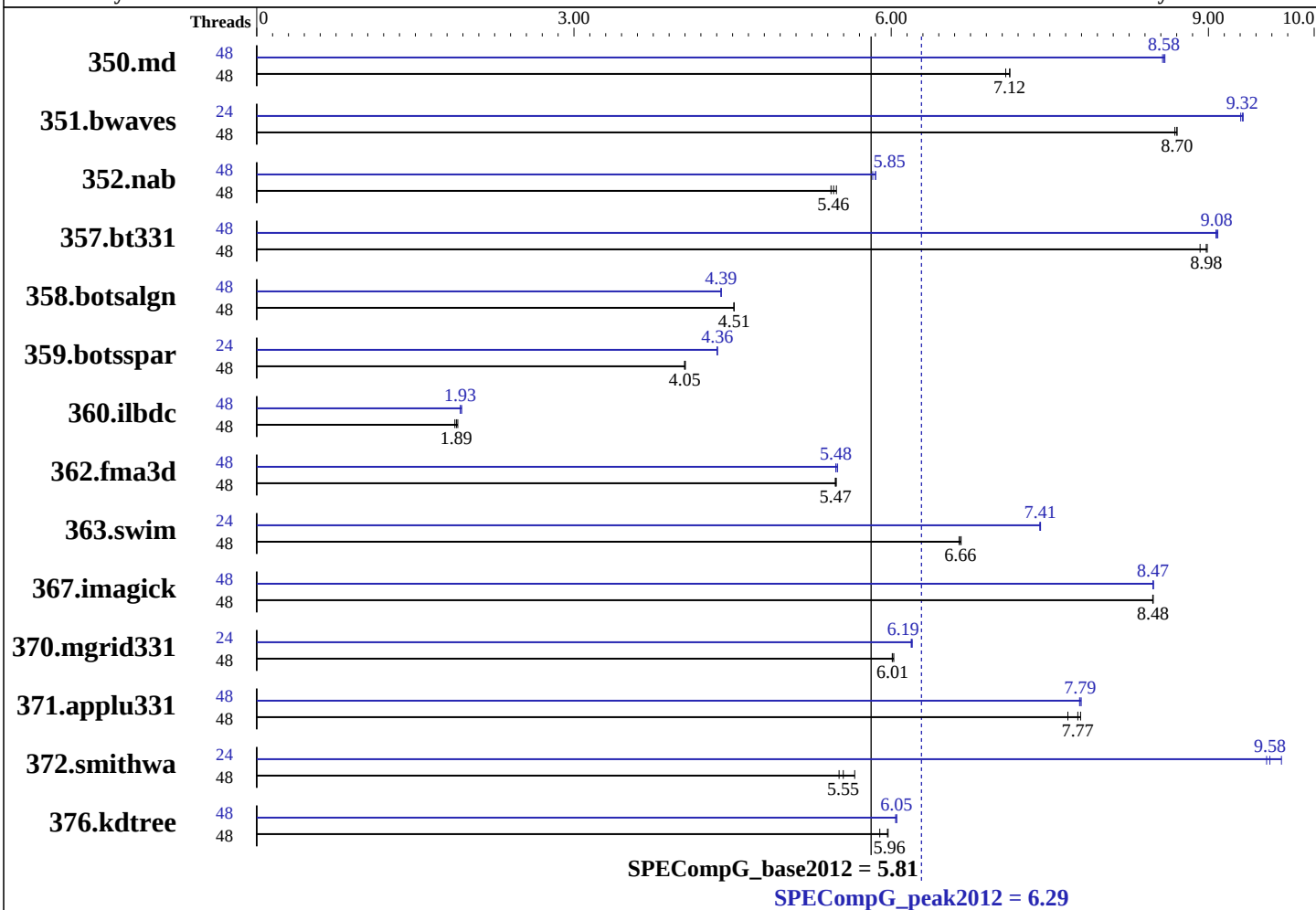
Test sponsor: Intel

Tested by: Intel

Test date: Aug-2013

Hardware Availability: Sep-2013

Software Availability: Jun-2013



Hardware

CPU Name: E5-2697 v2
CPU Characteristics: Turbo Disabled
CPU MHz: 2700
CPU MHz Maximum: 3500
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: Panasas ActiveStor 3050 Fileserver 64 disks, 250GB/disk, 16TB total, 4 Shelves connected via 1Gbps Ethernet
Other Hardware: --

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Software

Operating System: Red Hat Enterprise Linux Server release 6.4
Compiler: C/C++/Fortran: Version 13.1.3 of Intel Composer XE for Linux Build 20130607
Auto Parallel: No
File System: Linux ext3
System State: Default
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other Software: None



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Base Threads Run: 48

Minimum Peak Threads: 24

Maximum Peak Threads: 48

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
350.md	48	<u>650</u>	<u>7.12</u>	650	7.12	654	7.08	48	<u>540</u>	<u>8.58</u>	540	8.57	539	8.59
351.bwaves	48	<u>521</u>	<u>8.70</u>	522	8.68	521	8.70	24	487	9.31	<u>486</u>	<u>9.32</u>	486	9.33
352.nab	48	710	5.48	716	5.43	<u>713</u>	<u>5.46</u>	48	665	5.85	668	5.83	<u>665</u>	<u>5.85</u>
357.bt331	48	<u>528</u>	<u>8.98</u>	527	8.99	531	8.92	48	522	9.09	523	9.07	<u>522</u>	<u>9.08</u>
358.botsalgn	48	<u>964</u>	<u>4.51</u>	964	4.51	964	4.51	48	991	4.39	<u>990</u>	<u>4.39</u>	990	4.39
359.botsspar	48	1295	4.05	1297	4.05	<u>1297</u>	<u>4.05</u>	24	1205	4.36	<u>1205</u>	<u>4.36</u>	1206	4.35
360.ilbdc	48	<u>1885</u>	<u>1.89</u>	1872	1.90	1900	1.87	48	<u>1848</u>	<u>1.93</u>	1837	1.94	1848	1.93
362.fma3d	48	693	5.48	694	5.47	<u>694</u>	<u>5.47</u>	48	<u>694</u>	<u>5.48</u>	694	5.48	692	5.49
363.swim	48	682	6.64	<u>681</u>	<u>6.66</u>	680	6.66	24	611	7.41	<u>611</u>	<u>7.41</u>	612	7.41
367.imagick	48	829	8.48	<u>829</u>	<u>8.48</u>	830	8.47	48	<u>830</u>	<u>8.47</u>	830	8.47	829	8.48
370.mgrid331	48	<u>735</u>	<u>6.01</u>	735	6.01	734	6.02	24	<u>714</u>	<u>6.19</u>	713	6.20	714	6.19
371.applu331	48	<u>780</u>	<u>7.77</u>	790	7.67	778	7.79	48	<u>778</u>	<u>7.79</u>	779	7.78	777	7.80
372.smithwa	48	973	5.51	<u>966</u>	<u>5.55</u>	948	5.65	24	<u>559</u>	<u>9.58</u>	561	9.55	553	9.69
376.kdtree	48	764	5.89	754	5.97	<u>754</u>	<u>5.96</u>	48	745	6.04	744	6.05	<u>744</u>	<u>6.05</u>

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

Platform Notes

Sysinfo program /panfs/panfs3/users1/aknyaze1/OMP2012/Docs/sysinfo
 \$Rev: 395 \$ \$Date:: 2012-07-25 \$ 8f8c0fe9e19c658963a1e67685e50647
 running on esg006 Mon Aug 19 00:52:53 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 : 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: 65865132 kB

HugePages_Total: 0

Hugepagesize: 2048 kB

/usr/bin/lsb_release -d

Red Hat Enterprise Linux Server release 6.4 (Santiago)

From /etc/*release* /etc/*version*

redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)

system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)

system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

uname -a:

Linux esg006 2.6.32-358.6.2.el6.x86_64.crt1 #4 SMP Fri May 17 15:33:33 MDT
2013 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Aug 16 15:51

SPEC is set to: /panfs/panfs3/users1/aknyaze1/OMP2012

Filesystem Type Size Used Avail Use% Mounted on

panfs://36.101.211.1/users1

panfs 76T 11T 66T 14% /panfs/panfs3/users1

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

(End of data from sysinfo program)

General Notes

=====
BIOS settings notes:

Intel Turbo Boost Technology (Turbo) : Disabled

=====
General OMP Library Settings

ENV_KMP_LIBRARY=turnaround

ENV_KMP_STACKSIZE=190M

ENV_KMP_BLOCKTIME=infinite

ENV_OMP_DYNAMIC=FALSE

ENV_OMP_NESTED=FALSE

=====
General base OMP Library Settings

ENV_KMP_AFFINITY=compact,0

=====
General peak OMP Library Settings

ENV_KMP_AFFINITY=compact,0

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General Notes (Continued)

Per benchmark peak OMP Library Settings

=====

351.bwaves:peak:

ENV_KMP_AFFINITY=compact,1

ENV_OMP_SCHEDULE=static,1

=====

362.fma3d:peak:

ENV_KMP_AFFINITY=compact,1

ENV_OMP_SCHEDULE=guided

=====

ENV_OMP_SCHEDULE=static,1

=====

363.swim:peak:

ENV_KMP_AFFINITY=compact,1

=====

372.smithwa:peak:

ENV_KMP_AFFINITY=compact,1

Base Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

Base Portability Flags

350.md: -FR

357.bt331: -mmodel=medium

363.swim: -mmodel=medium

367.imagick: -std=c99

Base Optimization Flags

C benchmarks:

-O2 -openmp -ipo -xAVX -ansi-alias

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Base Optimization Flags (Continued)

C++ benchmarks:

-O2 -openmp -ipo -xAVX -ansi-alias

Fortran benchmarks:

-O2 -openmp -ipo -xAVX -align array64byte

Peak Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

Peak Portability Flags

350.md: -FR
357.bt331: -mmodel=medium
363.swim: -mmodel=medium
367.imagick: -std=c99

Peak Optimization Flags

C benchmarks:

352.nab: -O3 -openmp -ipo -xAVX -fno-alias -opt-malloc-options=1
-opt-calloc -fp-model fast=2 -no-prec-div -no-prec-sqrt
-ansi-alias
358.botsalgn: -O3 -openmp -ipo -xSSE4.2 -fno-alias -ansi-alias
359.botsspar: -O3 -openmp -ipo -xAVX -fno-alias -ansi-alias
367.imagick: -O2 -openmp -ipo -xAVX -ansi-alias
372.smithwa: -O2 -openmp -ipo -xSSE4.2 -fno-alias
-opt-streaming-stores always -opt-malloc-options=1
-ansi-alias

C++ benchmarks:

-O3 -openmp -ipo -xAVX -fno-alias -ansi-alias

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Peak Optimization Flags (Continued)

Fortran benchmarks:

350.md: -O2 -openmp -ipo -xAVX -fno-alias -opt-malloc-options=1
-fp-model fast=2 -no-prec-div -no-prec-sqrt
-align array64byte

351.bwaves: -O3 -openmp -ipo -xAVX -fno-alias -fp-model fast=2
-no-prec-div -no-prec-sqrt -align array64byte

357.bt331: Same as 351.bwaves

360.ilbdc: -O3 -openmp -ipo -xAVX -opt-malloc-options=1
-align array64byte

362.fma3d: -O3 -openmp -ipo -xAVX -fno-alias -align array64byte

363.swim: -O3 -openmp -ipo -xSSE4.2 -fno-alias
-opt-streaming-stores always -opt-malloc-options=3
-align array64byte

370.mgrid331: -O2 -openmp -ipo -xSSE4.2 -fno-alias
-opt-malloc-options=3 -align array64byte

371.aplu331: -O2 -openmp -ipo -xAVX -align array64byte

The flags file that was used to format this result can be browsed at
<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20130910.html>

You can also download the XML flags source by saving the following link:
<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20130910.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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