



SPEC® OMPG2012 Result

Copyright 2012-2014 Standard Performance Evaluation Corporation

Intel

SPECompG_peak2012 = 8.68

Intel R2208WTTYC1 (Intel Xeon E5-2697 v3)

SPECompG_base2012 = 7.96

OMP2012 license:13

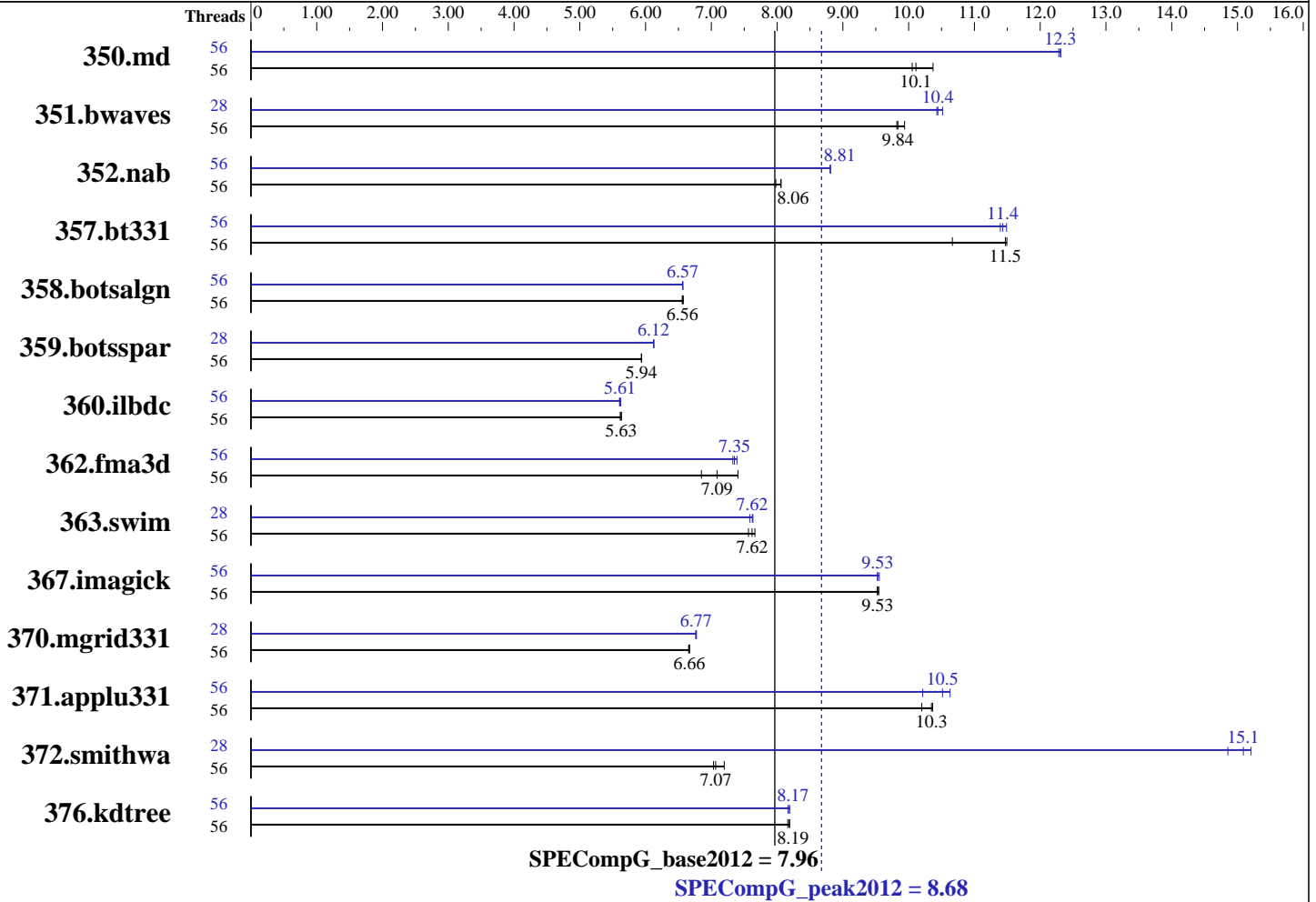
Test sponsor: Intel

Tested by: Intel

Test date: Aug-2014

Hardware Availability: Sep-2014

Software Availability: Jan-2014



Hardware

CPU Name: E5-2697 v3
 CPU Characteristics: 2600
 CPU MHz: 3600
 CPU MHz Maximum: 3600
 FPU: Integrated
 CPU(s) enabled: 28 cores, 2 chips, 14 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: 35 MB I+D on chip per chip
 Other Cache: None
 Memory: 64 GB (8 x 8 GB 2Rx4 PC4-17000R-15, ECC)
 Disk Subsystem: Panasas ActiveStor 14
 Other Hardware: --
 Base Threads Run: 56
 Minimum Peak Threads: 28

Continued on next page

Software

Operating System: Red Hat Enterprise Linux Server release 6.5
 Compiler: C/C++/Fortran: Version 15.0.011 of Intel Composer XE for Linux Build 20140127
 Auto Parallel: No
 File System: Linux ext3
 System State: Default
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other Software: None



SPEC OMPG2012 Result

Copyright 2012-2014 Standard Performance Evaluation Corporation

Intel

SPECompG_peak2012 = 8.68

Intel R2208WTTYC1 (Intel Xeon E5-2697 v3)

SPECompG_base2012 = 7.96

OMP2012 license:13

Test sponsor: Intel

Tested by: Intel

Test date: Aug-2014

Hardware Availability: Sep-2014

Software Availability: Jan-2014

Maximum Peak Threads: 56

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
350.md	56	460	10.1	446	10.4	458	10.1	56	377	12.3	376	12.3	376	12.3
351.bwaves	56	461	9.82	456	9.94	461	9.84	28	434	10.4	431	10.5	434	10.4
352.nab	56	487	7.98	483	8.06	483	8.06	56	441	8.81	442	8.81	442	8.81
357.bt331	56	412	11.5	413	11.5	444	10.7	56	413	11.5	415	11.4	416	11.4
358.botsalgn	56	662	6.57	663	6.56	663	6.56	56	662	6.57	663	6.56	662	6.57
359.botsspar	56	884	5.94	884	5.94	884	5.94	28	857	6.12	857	6.12	857	6.13
360.ilbdc	56	632	5.63	634	5.61	633	5.63	56	633	5.62	635	5.61	635	5.60
362.fma3d	56	555	6.85	536	7.09	513	7.40	56	517	7.35	519	7.33	514	7.39
363.swim	56	595	7.62	591	7.66	599	7.56	28	597	7.58	594	7.62	593	7.63
367.imagick	56	736	9.55	738	9.53	738	9.52	56	738	9.53	736	9.55	738	9.52
370.mgrid331	56	663	6.66	663	6.67	664	6.65	28	652	6.77	653	6.77	654	6.76
371.applu331	56	594	10.2	585	10.4	586	10.3	56	576	10.5	570	10.6	593	10.2
372.smithwa	56	745	7.20	759	7.07	762	7.03	28	352	15.2	355	15.1	361	14.9
376.kdtree	56	549	8.19	550	8.19	551	8.16	56	551	8.17	551	8.17	549	8.19

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

Platform Notes

```

Sysinfo program /panfs/projects/innl/aknyazel/OMP2012/1.0/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963ale67685e50647
running on ehs164 Mon Aug 18 09:36:31 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 : Intel(R) Xeon(R) CPU E5-2697 v3 @ 2.60GHz
 2 "physical id"s (chips)
 56 "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 : 14
siblings : 28
physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14
physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14
cache size : 35840 KB

```

```

From /proc/meminfo
MemTotal: 65837336 kB

```

Continued on next page



SPEC OMPG2012 Result

Copyright 2012-2014 Standard Performance Evaluation Corporation

Intel

SPECompG_peak2012 = 8.68

Intel R2208WTTYC1 (Intel Xeon E5-2697 v3)

SPECompG_base2012 = 7.96

OMP2012 license:13

Test date: Aug-2014

Test sponsor: Intel

Hardware Availability: Sep-2014

Tested by: Intel

Software Availability: Jan-2014

Platform Notes (Continued)

HugePages_Total: 0
Hugepagesize: 2048 kB

```
/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.5 (Santiago)
```

```
From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.5 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.5 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server
```

```
uname -a:
Linux ehs164 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 14 11:26
```

```
SPEC is set to: /panfs/projects/innl/aknyazel/OMP2012/1.0
Filesystem      Type  Size  Used Avail Use% Mounted on
panfs://36.101.211.1/projects
panfs           32T   31T 1006G  97% /panfs/projects
```

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

(End of data from sysinfo program)

General Notes

```
=====
System settings notes:
Intel Turbo Boost Technology (Turbo) : Enabled
```

```
=====
General OMP Library Settings
KMP_LIBRARY=turnaround
KMP_STACKSIZE=256M
KMP_BLOCKTIME=infinite
OMP_DYNAMIC=FALSE
OMP_NESTED=FALSE
OMP_SCHEDULE=static
```

```
=====
General base OMP Library Settings
ENV_KMP_AFFINITY=compact,0
```

```
=====
General peak OMP Library Settings
ENV_KMP_AFFINITY=compact,0
```

```
=====
Per benchmark peak OMP Library Settings
```

Continued on next page



SPEC OMPG2012 Result

Copyright 2012-2014 Standard Performance Evaluation Corporation

Intel

SPECompG_peak2012 = 8.68

Intel R2208WTTYC1 (Intel Xeon E5-2697 v3)

SPECompG_base2012 = 7.96

OMP2012 license:13

Test sponsor: Intel

Tested by: Intel

Test date: Aug-2014

Hardware Availability: Sep-2014

Software Availability: Jan-2014

General Notes (Continued)

```

=====
351.bwaves:peak:
  ENV_KMP_AFFINITY=compact,1
  ENV_OMP_SCHEDULE=static,1

```

```

=====
359.botsspar:peak:
  ENV_KMP_AFFINITY=compact,1
  ENV_OMP_SCHEDULE=guided

```

```

=====
363.swim:peak:
  ENV_KMP_AFFINITY=compact,1

```

```

=====
370.mgrid331:peak:
  ENV_KMP_AFFINITY=compact,1

```

```

=====
372.smithwa:peak:
  ENV_OMP_SCHEDULE=static,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:
-O3 -openmp -ipo -xCORE-AVX2 -ansi-alias

Continued on next page



SPEC OMPG2012 Result

Copyright 2012-2014 Standard Performance Evaluation Corporation

Intel

SPECompG_peak2012 = 8.68

Intel R2208WTTYC1 (Intel Xeon E5-2697 v3)

SPECompG_base2012 = 7.96

OMP2012 license:13

Test sponsor: Intel

Tested by: Intel

Test date: Aug-2014

Hardware Availability: Sep-2014

Software Availability: Jan-2014

Base Optimization Flags (Continued)

C++ benchmarks:

-O3 -openmp -ipo -xCORE-AVX2 -ansi-alias

Fortran benchmarks:

-O3 -openmp -ipo -xCORE-AVX2 -align array64byte

Peak Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

Peak Portability Flags

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

Peak Optimization Flags

C benchmarks:

352.nab: -O3 -openmp -ipo -xCORE-AVX2 -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 -xCORE-AVX2 -fno-alias -ansi-alias

359.botsspar: Same as 358.botsalgn

367.imagick: -O3 -openmp -ipo -xCORE-AVX2 -ansi-alias

372.smithwa: -O3 -openmp -ipo -xCORE-AVX2 -fno-alias
-opt-streaming-stores always -opt-malloc-options=1
-ansi-alias

C++ benchmarks:

-O3 -openmp -ipo -xCORE-AVX2 -fno-alias -ansi-alias

Continued on next page



SPEC OMPG2012 Result

Copyright 2012-2014 Standard Performance Evaluation Corporation

Intel

SPECompG_peak2012 = 8.68

Intel R2208WTTYC1 (Intel Xeon E5-2697 v3)

SPECompG_base2012 = 7.96

OMP2012 license:13

Test date: Aug-2014

Test sponsor: Intel

Hardware Availability: Sep-2014

Tested by: Intel

Software Availability: Jan-2014

Peak Optimization Flags (Continued)

Fortran benchmarks:

350.md: -O3 -openmp -ipo -xCORE-AVX2 -fno-alias
-opt-malloc-options=1 -fp-model fast=2 -no-prec-div
-no-prec-sqrt -align array64byte

351.bwaves: -O3 -openmp -ipo -xCORE-AVX2 -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 -xCORE-AVX2 -fno-alias
-align array64byte

362.fma3d: Same as 360.ilbdc

363.swim: -O3 -openmp -ipo -xCORE-AVX2 -fno-alias
-opt-streaming-stores always -opt-malloc-options=3
-align array64byte

370.mgrid331: -O3 -openmp -ipo -xCORE-AVX2 -fno-alias
-opt-malloc-options=3 -align array64byte

371.applu331: -O3 -openmp -ipo -xCORE-AVX2 -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-linux64.20140219.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20140219.xml>

SPEC is a registered trademark of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC OMP2012 v1.0.
Report generated on Mon Sep 8 17:14:28 2014 by SPEC OMP2012 PS/PDF formatter v541.
Originally published on 8 September 2014.