



SPEC® OMPG2012 Result

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IBM

(Test Sponsor: Indiana University)

SPECompG_peak2012 = Not Run

IBM NeXtScale nx360 M4 server

SPECompG_base2012 = 4.87

OMP2012 license:3440A

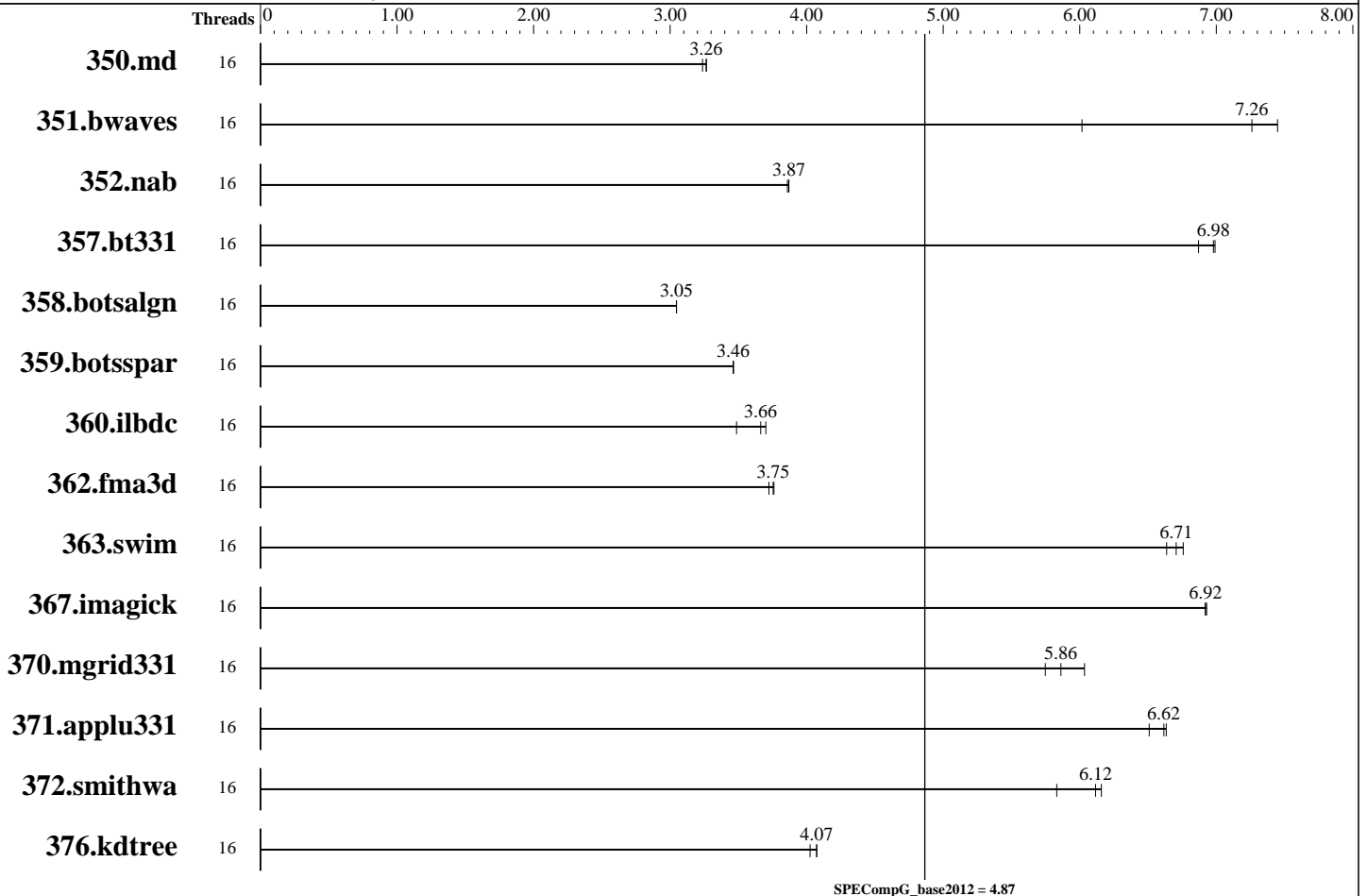
Test sponsor: Indiana University

Tested by: Indiana University

Test date: Mar-2015

Hardware Availability: Aug-2014

Software Availability: Jan-2015



Hardware

CPU Name: Intel Xeon E5-2650 v2
 CPU Characteristics: Intel Turbo Boost Technology up to 3.4GHz, Hyper-Threading off
 CPU MHz: 2600
 CPU MHz Maximum: 3400
 FPU: Integrated
 CPU(s) enabled: 16 cores, 2 chips, 8 cores/chip
 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: 20 MB I+D on chip per chip, 20 MB shared / 8 cores
 Other Cache: None
 Memory: 32 GB (8 x 4 GB 1Rx4 PC3-14900R-13, ECC)
 Disk Subsystem: 250 GB 7200 RPM 2.5" SAS hard drives
 Other Hardware: None
 Base Threads Run: 16

Continued on next page

Software

Operating System: Red Hat Enterprise Linux Server release 6.6 (Santiago)
 Kernel 2.6.32-504.3.3.el6.x86_64
 2.6.32-504.3.3.el6.x86_64
 Compiler: C/C++/Fortran: Version 15.0.1.133 of Intel Composer XE for Linux Build 20141023
 Auto Parallel: No
 File System: NFSv3 (IBM N5500 NAS) over 10 Gb ethernet
 System State: Multi-user, run level 3
 Base Pointers: 64-bit
 Peak Pointers: Not Applicable
 Other Software: None



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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 | 16 | 1430 | 3.24 | 1418 | 3.27 | <u>1419</u> | <u>3.26</u> | | | | | | | | | |
| 351.bwaves | 16 | 753 | 6.02 | 608 | 7.45 | <u>624</u> | <u>7.26</u> | | | | | | | | | |
| 352.nab | 16 | 1008 | 3.86 | 1005 | 3.87 | <u>1005</u> | <u>3.87</u> | | | | | | | | | |
| 357.bt331 | 16 | 690 | 6.87 | 678 | 6.99 | <u>679</u> | <u>6.98</u> | | | | | | | | | |
| 358.botsalgn | 16 | <u>1428</u> | <u>3.05</u> | 1428 | 3.05 | 1428 | 3.05 | | | | | | | | | |
| 359.botsspar | 16 | <u>1516</u> | <u>3.46</u> | 1516 | 3.46 | 1516 | 3.46 | | | | | | | | | |
| 360.ilbdc | 16 | 962 | 3.70 | <u>972</u> | <u>3.66</u> | 1021 | 3.49 | | | | | | | | | |
| 362.fma3d | 16 | 1011 | 3.76 | 1020 | 3.72 | <u>1012</u> | <u>3.75</u> | | | | | | | | | |
| 363.swim | 16 | 670 | 6.76 | <u>675</u> | <u>6.71</u> | 683 | 6.64 | | | | | | | | | |
| 367.imagick | 16 | 1015 | 6.93 | 1016 | 6.92 | <u>1016</u> | <u>6.92</u> | | | | | | | | | |
| 370.mgrid331 | 16 | <u>754</u> | <u>5.86</u> | 732 | 6.03 | 769 | 5.75 | | | | | | | | | |
| 371.applu331 | 16 | <u>916</u> | <u>6.62</u> | 914 | 6.63 | 931 | 6.51 | | | | | | | | | |
| 372.smithwa | 16 | 919 | 5.83 | 870 | 6.16 | <u>876</u> | <u>6.12</u> | | | | | | | | | |
| 376.kdtree | 16 | 1118 | 4.02 | <u>1105</u> | <u>4.07</u> | 1105 | 4.07 | | | | | | | | | |

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/SPEC_OMP2012v1.0_KARST/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963ale67685e50647
running on cl05.karst.uits.iu.edu Sun Mar 22 13:20:52 2015

```

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 E5-2650 v2 @ 2.60GHz
 2 "physical id"s (chips)
16 "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 : 8
physical 0: cores 0 1 2 3 4 5 6 7
physical 1: cores 0 1 2 3 4 5 6 7
cache size : 20480 KB

```

From /proc/meminfo

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Platform Notes (Continued)

MemTotal: 32982456 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

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

redhat-release: Red Hat Enterprise Linux Server release 6.6 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.6 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

uname -a:

Linux c105.karst.uits.iu.edu 2.6.32-504.3.3.el6.x86_64 #1 SMP Fri Dec 12 16:05:43 EST 2014 x86_64 x86_64 x86_64 GNU/Linux

run-level Sep 18 15:22

SPEC is set to: /N/soft/mason/omp2012-1.0/SPEC_OMP2012v1.0_KARST

| Filesystem | Type | Size | Used | Avail | Use% | Mounted on |
|--------------------------------|------|------|------|-------|------|------------|
| researchfs.iu.edu:/gs/hps/soft | nfs | 599T | 102T | 498T | 17% | /N/soft |

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

(End of data from sysinfo program)

General Notes

Environment:

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Base Portability Flags

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



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Base Optimization Flags

C benchmarks:

-O3 -ansi-alias -no-prec-div -openmp -mmodel=medium -ipo
-xCORE-AVX-I

C++ benchmarks:

-O3 -ansi-alias -no-prec-div -openmp -mmodel=medium -ipo
-xCORE-AVX-I

Fortran benchmarks:

-O3 -no-prec-div -openmp -mmodel=medium -ipo -xCORE-AVX-I

The flags file that was used to format this result can be browsed at

<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20150415.html>

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

<http://www.spec.org/omp2012/flags/Intel-ic13.0-linux64.20150415.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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