SPEC® OMPG2012 Result

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Hewlett-Packard Company

(Test Sponsor: The Portland Group)

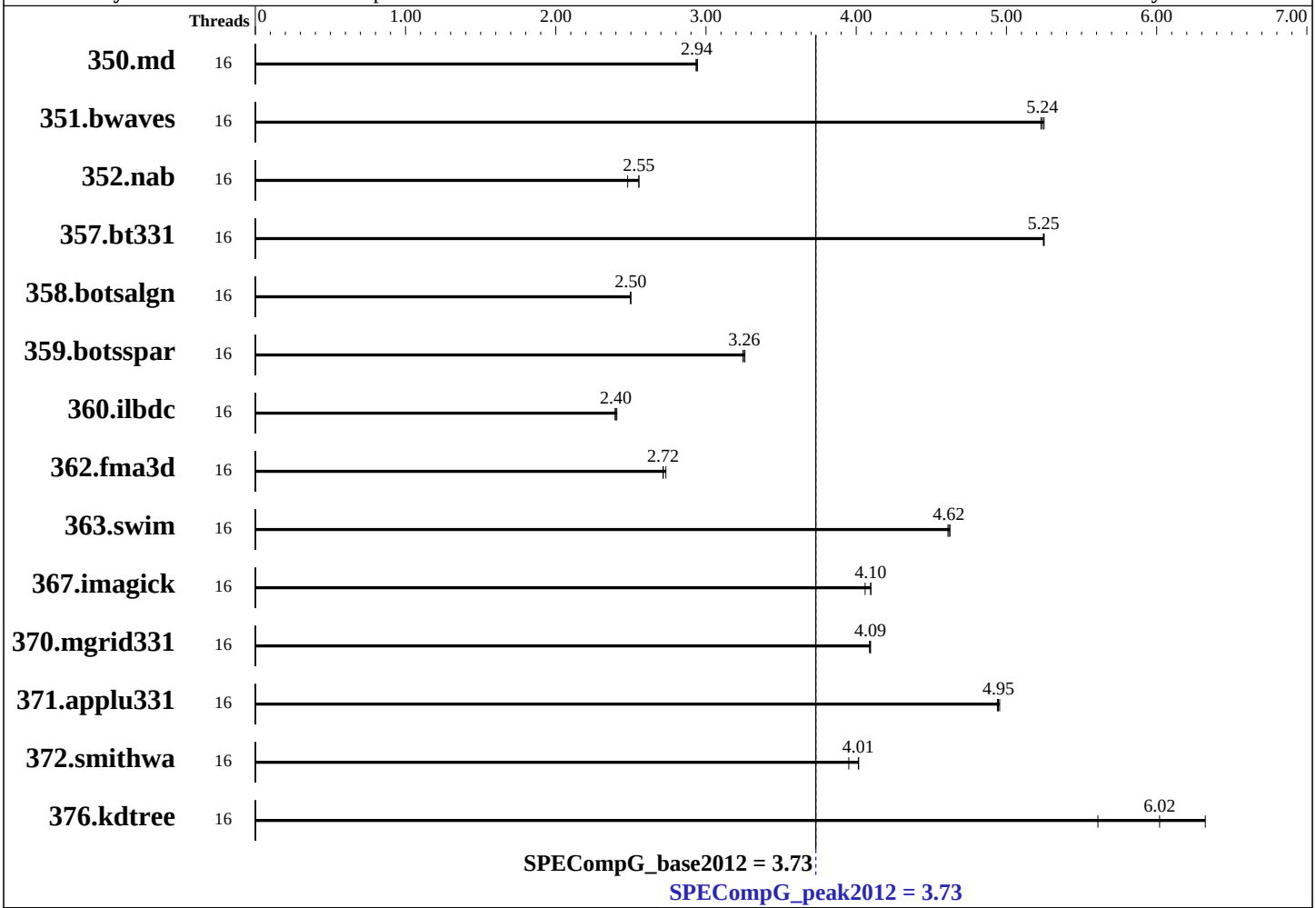
ProLiant SL250

SPECompG_peak2012 = 3.73

SPECompG_base2012 = 3.73

OMP2012 license: 019
Test sponsor: The Portland Group
Tested by: The Portland Group

Test date: Jan-2013
Hardware Availability: Aug-2012
Software Availability: Jan-2013



Hardware

CPU Name:	Intel Xeon E5-2670
CPU Characteristics:	Intel Xeon CPU E5-2670 0 @ 2.60 GHz
CPU MHz:	2600
CPU MHz Maximum:	3300
FPU:	Integrated
CPU(s) enabled:	16 cores, 2 chips, 8 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:	20 MB I+D on chip per chip
Other Cache:	None
Memory:	64 GB (8 x 8GB 2Rx4 PC3L-10600R-9, ECC)
Disk Subsystem:	10 x 144GB, RAID, 10000 RPM
Other Hardware:	None
Base Threads Run:	16
Minimum Peak Threads:	16

Continued on next page

Software

Operating System:	Red Hat Enterprise Linux Server release 6.2 (Santiago) 2.6.32-220.el6.x86_64
Compiler:	C/C++/Fortran: Version 13.1 of PGI Server Complete
Auto Parallel:	No
File System:	nfs
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	64-bit
Other Software:	None

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Maximum Peak Threads: 16

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
350.md	16	**1575**	**2.94**	1578	2.93	1573	2.94	16	**1575**	**2.94**	1578	2.93	1573	2.94
351.bwaves	16	866	5.23	**865**	**5.24**	863	5.25	16	866	5.23	**865**	**5.24**	863	5.25
352.nab	16	**1524**	**2.55**	1524	2.55	1569	2.48	16	**1524**	**2.55**	1524	2.55	1569	2.48
357.bt331	16	**903**	**5.25**	903	5.25	904	5.25	16	**903**	**5.25**	903	5.25	904	5.25
358.botsalgn	16	**1741**	**2.50**	1741	2.50	1741	2.50	16	**1741**	**2.50**	1741	2.50	1741	2.50
359.botsspar	16	1611	3.26	**1613**	**3.26**	1617	3.25	16	1611	3.26	**1613**	**3.26**	1617	3.25
360.ilbdc	16	1479	2.41	1487	2.39	**1483**	**2.40**	16	1479	2.41	1487	2.39	**1483**	**2.40**
362.fma3d	16	1400	2.71	**1399**	**2.72**	1390	2.73	16	1400	2.71	**1399**	**2.72**	1390	2.73
363.swim	16	980	4.62	983	4.61	**981**	**4.62**	16	980	4.62	983	4.61	**981**	**4.62**
367.imagick	16	**1716**	**4.10**	1716	4.10	1732	4.06	16	**1716**	**4.10**	1716	4.10	1732	4.06
370.mgrid331	16	1081	4.09	**1080**	**4.09**	1079	4.09	16	1081	4.09	**1080**	**4.09**	1079	4.09
371.applu331	16	**1225**	**4.95**	1227	4.94	1223	4.95	16	**1225**	**4.95**	1227	4.94	1223	4.95
372.smithwa	16	1357	3.95	1335	4.02	**1335**	**4.01**	16	1357	3.95	1335	4.02	**1335**	**4.01**
376.kdtree	16	**748**	**6.02**	712	6.32	802	5.61	16	**748**	**6.02**	712	6.32	802	5.61

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

Platform Notes

```
Sysinfo program /scratch/cparrott/OMP2012_v1.0/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963a1e67685e50647
running on node3 Sat Jan 26 09:47:08 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 E5-2670 0 @ 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
   MemTotal:       65932772 kB
```

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Platform Notes (Continued)

```
      HugePages_Total:       0
      Hugepagesize:       2048 kB

   /usr/bin/lsb_release -d
      Red Hat Enterprise Linux Server release 6.2 (Santiago)

   From /etc/*release* /etc/*version*
      redhat-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
      system-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
      system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

   uname -a:
      Linux node3 2.6.32-220.el6.x86_64 #1 SMP Wed Nov 9 08:03:13 EST 2011 x86_64
      x86_64 x86_64 GNU/Linux

   run-level 3 Jan 8 10:38

   SPEC is set to: /scratch/cparrott/OMP2012_v1.0
      Filesystem     Type    Size  Used Avail Use% Mounted on
      filer01.pgi.net:/vol/vol1/scratch
                      nfs    727G  125G  602G  18% /proj/scratch

   Additional information from dmidecode:

   (End of data from sysinfo program)
```

General Notes

```
Environment variables set by runspec before the start of the run:
MP_BIND = "yes"
MP_SPIN = "1"


    Software Environment:
        export MP_BIND=yes
        export MP_SPIN=1
        ulimit -s unlimited
```

Base Compiler Invocation

C benchmarks:
pgcc

C++ benchmarks:
pgCC

Fortran benchmarks:
pgfortran

Base Portability Flags

350.md: `-Mfree`
351.bwaves: `-mcmodel=medium`
357.bt331: `-mcmodel=medium`
363.swim: `-mcmodel=medium`

Base Optimization Flags

C benchmarks:
`-mp -fast -Mipa=fast -Mipa=inline -Msmartalloc -Mfprelaxed`

C++ benchmarks:
`-mp -fast -Mipa=fast -Mipa=inline -Msmartalloc -Mfprelaxed`

Fortran benchmarks:
`-mp -fast -Mipa=fast -Mipa=inline -Msmartalloc -Mfprelaxed`

Peak Optimization Flags

C benchmarks:

352.nab: `basepeak = yes`
358.botsalgn: `basepeak = yes`
359.botsspar: `basepeak = yes`
367.imagick: `basepeak = yes`
372.smithwa: `basepeak = yes`

C++ benchmarks:

376.kdtree: `basepeak = yes`

Fortran benchmarks:

350.md: `basepeak = yes`
351.bwaves: `basepeak = yes`
357.bt331: `basepeak = yes`
360.ilbdc: `basepeak = yes`
362.fma3d: `basepeak = yes`

Continued on next page

Peak Optimization Flags (Continued)

363.swim: `basepeak = yes`

370.mgrid331: `basepeak = yes`

371.applu331: `basepeak = yes`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/omp2012/flags/pgi2013_linux_flags.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/omp2012/flags/pgi2013_linux_flags.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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