



SPEC® OMPG2012 Result

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Megware

(Test Sponsor: Technische Universitaet Dresden)

SPECompG_peak2012 = Not Run

SuperMicro A+ Server 1042G-LTF

SPECompG_base2012 = 5.35

OMP2012 license:37A

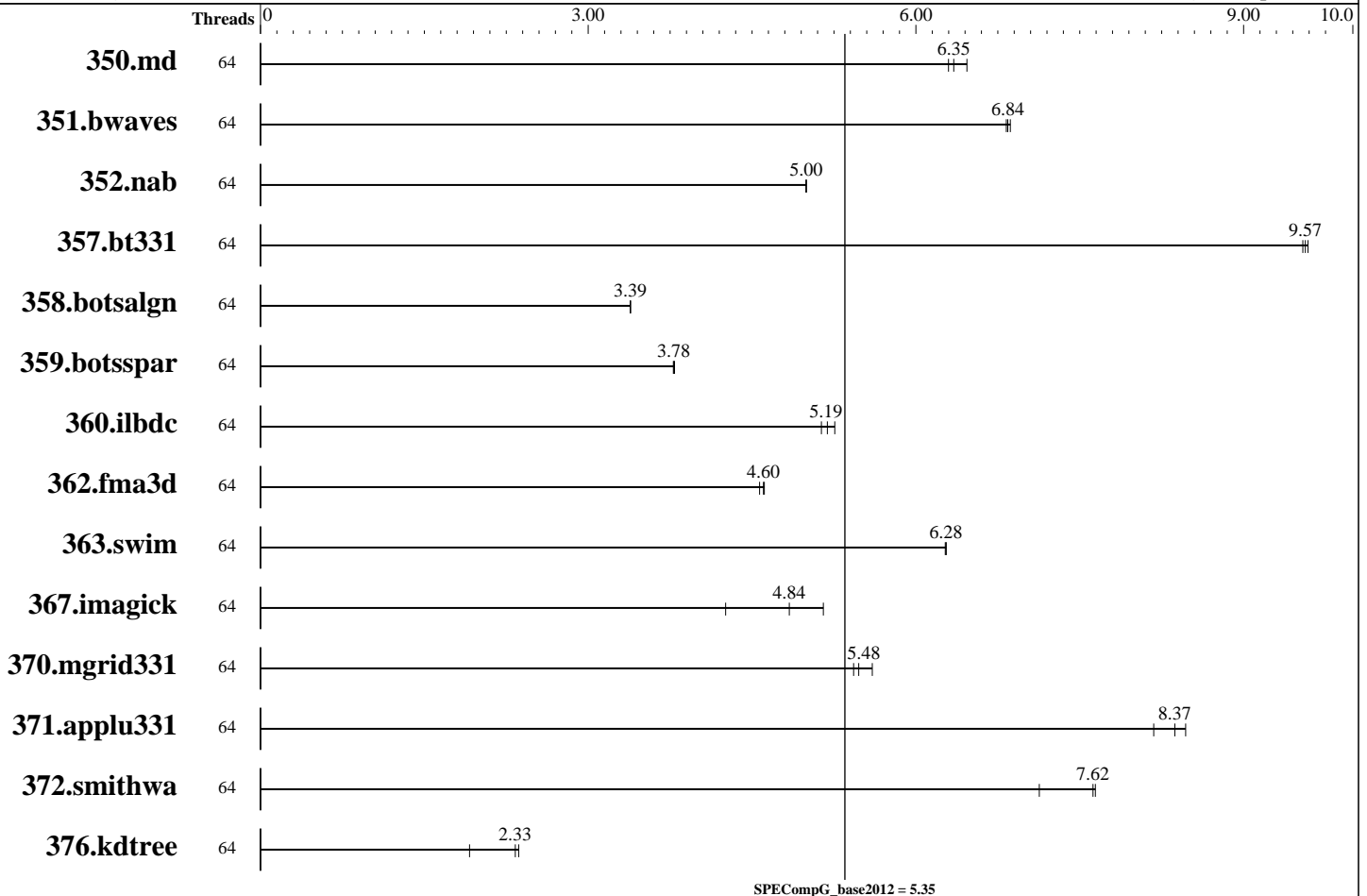
Test sponsor: Technische Universitaet Dresden

Tested by: Technische Universitaet Dresden

Test date: Sep-2012

Hardware Availability: Nov-2011

Software Availability: Sep-2012



Hardware

CPU Name: AMD Opteron 6274
 CPU Characteristics: AMD Turbo CORE technology up to 3.10 GHz
 CPU MHz: 2200
 CPU MHz Maximum: 3100
 FPU: Integrated
 CPU(s) enabled: 64 cores, 4 chips, 16 cores/chip
 CPU(s) orderable: 2,4 chips
 Primary Cache: 512 KB I on chip per chip,
 64 KB I shared / 2 cores;
 16 KB D on chip per core
 Secondary Cache: 16 MB I+D on chip per chip, 2 MB shared / 2 cores
 L3 Cache: 16 MB I+D on chip per chip, 8 MB shared / 8 cores
 Other Cache: None
 Memory: 64 GB (16 x 4 GB PC3-12800R, ECC)
 Disk Subsystem: 250 GB (1 x 250 GB SATA 7200 rpm)
 Other Hardware: --

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Software

Operating System: SUSE Linux Enterprise Server 11 SP2
 Kernel 3.0.26-0.7-default
 Compiler: C/C++/Fortran: Version 12.9 of the PGI Compilers
 Auto Parallel: No
 File System: ext3
 System State: run-level 3
 Base Pointers: 64-bit
 Peak Pointers: Not Applicable
 Other Software: None



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Base Threads Run: 64

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	64	716	6.47	<u>730</u>	<u>6.35</u>	735	6.30							
351.bwaves	64	660	6.86	<u>662</u>	<u>6.84</u>	663	6.83							
352.nab	64	779	4.99	778	5.00	<u>779</u>	<u>5.00</u>							
357.bt331	64	497	9.54	494	9.59	<u>496</u>	<u>9.57</u>							
358.botsalgn	64	1284	3.39	<u>1285</u>	<u>3.39</u>	1285	3.39							
359.botsspar	64	1389	3.78	<u>1387</u>	<u>3.78</u>	1385	3.79							
360.ilbdc	64	677	5.26	<u>686</u>	<u>5.19</u>	693	5.14							
362.fma3d	64	<u>825</u>	<u>4.60</u>	832	4.57	824	4.61							
363.swim	64	723	6.27	722	6.28	<u>722</u>	<u>6.28</u>							
367.imagick	64	1651	4.26	<u>1452</u>	<u>4.84</u>	1364	5.15							
370.mgrid331	64	789	5.60	<u>807</u>	<u>5.48</u>	814	5.43							
371.applu331	64	716	8.47	<u>724</u>	<u>8.37</u>	741	8.18							
372.smithwa	64	701	7.64	<u>703</u>	<u>7.62</u>	752	7.13							
376.kdtree	64	1904	2.36	<u>1929</u>	<u>2.33</u>	2351	1.91							

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

Platform Notes

```

Sysinfo program /tmp/OMP2012-021/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 $# 8f8c0fe9e19c658963a1e67685e50647
running on n009 Fri Sep 28 10:55:30 2012

```

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 : AMD Opteron(TM) Processor 6274
 4 "physical id"s (chips)
 64 "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 : 16
physical 0: cores 0 1 2 3 4 5 6 7
physical 1: cores 0 1 2 3 4 5 6 7
physical 2: cores 0 1 2 3 4 5 6 7
physical 3: cores 0 1 2 3 4 5 6 7

```

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Platform Notes (Continued)

cache size : 2048 KB

From /proc/meminfo

MemTotal: 66100476 kB

HugePages_Total: 0

Hugepagesize: 2048 kB

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

SuSE-release:

SUSE Linux Enterprise Server 11 (x86_64)

VERSION = 11

PATCHLEVEL = 2

hpc-release:

"Platform HPC" 3.0 (build 5890)

kusu-release: Kusu "Orange Fiddler" 2.1 (build 5871)

mpichversion.c:

```
/* -*- Mode: C; c-basic-offset:4 ; -*- */
```

```
/*
```

```
* (C) 2004 by Argonne National Laboratory.
```

```
* See COPYRIGHT in top-level directory.
```

```
*/
```

```
#include "mpi.h"
```

```
#include <stdio.h>
```

uname -a:

Linux n009 3.0.26-0.7-default #1 SMP Tue Apr 17 10:27:57 UTC 2012 (3829766)

x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Sep 17 15:30 last=S

SPEC is set to: /tmp/OMP2012-021

```
Filesystem      Type  Size  Used Avail Use% Mounted on
```

```
/dev/sda6      ext3  180G  5.1G  166G   3% /tmp
```

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

(End of data from sysinfo program)

General Notes

Environment:

OMP_NESTED=FALSE

OMP_DYNAMIC=FALSE

OMP_STACKSIZE=64M

MP_BIND=YES

MPSTKZ=64M

System settings:

AMD HT Assist enabled, effective L3 size reduced from 16 MB

per processor to 12 MB, 4 MB used as probe filter



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Base Compiler Invocation

C benchmarks:

pgcc

C++ benchmarks:

pgcpp

Fortran benchmarks:

pgf90

Base Portability Flags

350.md: -Mfree

Base Optimization Flags

C benchmarks:

-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmmodel=medium

C++ benchmarks:

-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmmodel=medium

Fortran benchmarks:

-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmmodel=medium

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

http://www.spec.org/omp2012/flags/pgi129_linux_flags.html

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

http://www.spec.org/omp2012/flags/pgi129_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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