# SPEC® OMPG2012 Result

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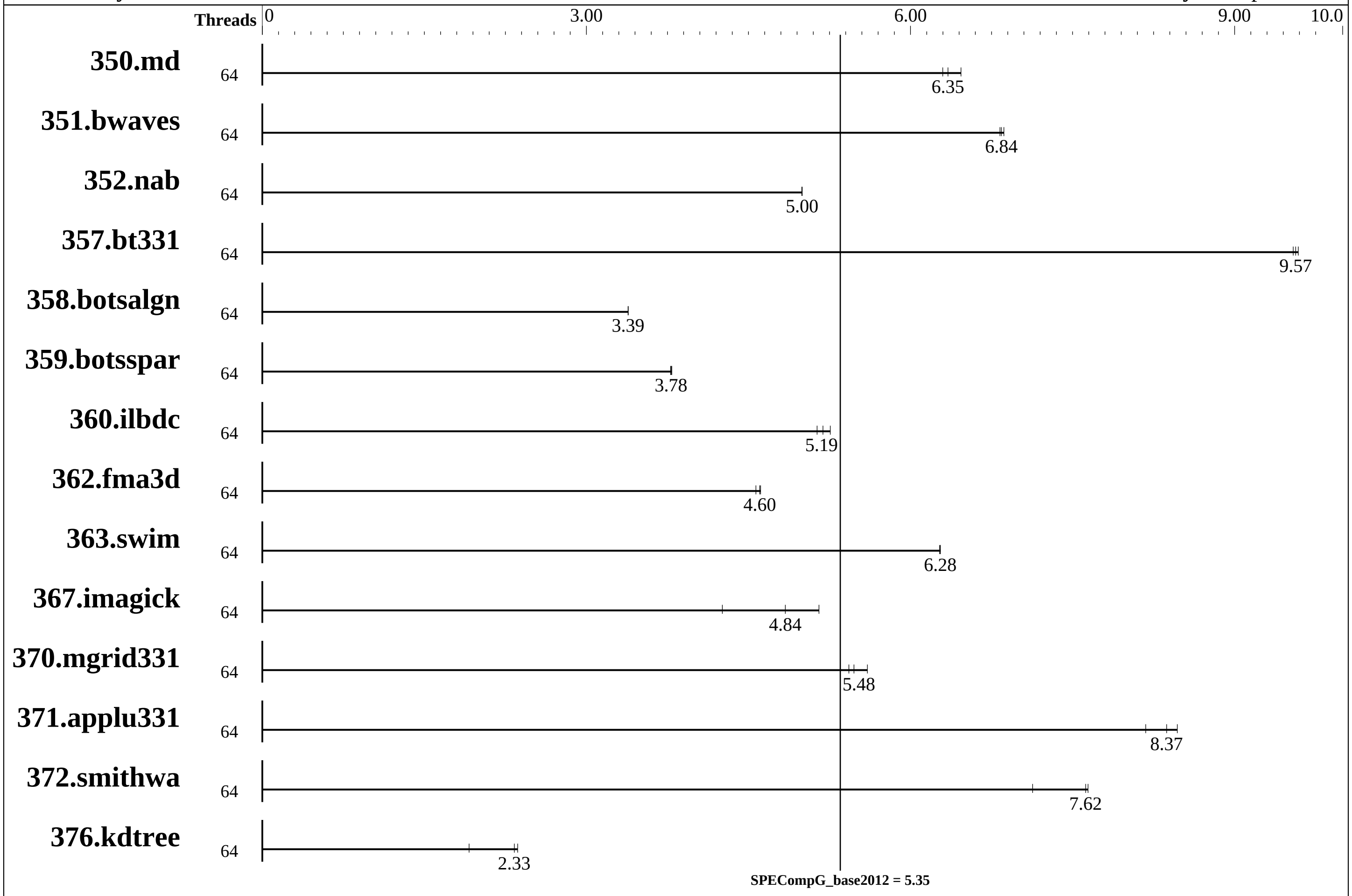
Megware
(Test Sponsor: Technische Universitaet Dresden)

SuperMicro A+ Server 1042G-LTF

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 5.35

| | | | |
|---|---|---|---|
| **OMP2012 license:** | 37A | **Test date:** | Sep-2012 |
| **Test sponsor:** | Technische Universitaet Dresden | **Hardware Availability:** | Nov-2011 |
| **Tested by:** | Technische Universitaet Dresden | **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 | **730** | **6.35** | 735 | 6.30 | | | | | | | |
| 351.bwaves | 64 | 660 | 6.86 | **662** | **6.84** | 663 | 6.83 | | | | | | | |
| 352.nab | 64 | 779 | 4.99 | 778 | 5.00 | **779** | **5.00** | | | | | | | |
| 357.bt331 | 64 | 497 | 9.54 | 494 | 9.59 | **496** | **9.57** | | | | | | | |
| 358.botsalgn | 64 | 1284 | 3.39 | **1285** | **3.39** | 1285 | 3.39 | | | | | | | |
| 359.botsspar | 64 | 1389 | 3.78 | **1387** | **3.78** | 1385 | 3.79 | | | | | | | |
| 360.ilbdc | 64 | 677 | 5.26 | **686** | **5.19** | 693 | 5.14 | | | | | | | |
| 362.fma3d | 64 | **825** | **4.60** | 832 | 4.57 | 824 | 4.61 | | | | | | | |
| 363.swim | 64 | 723 | 6.27 | 722 | 6.28 | **722** | **6.28** | | | | | | | |
| 367.imagick | 64 | 1651 | 4.26 | **1452** | **4.84** | 1364 | 5.15 | | | | | | | |
| 370.mgrid331 | 64 | 789 | 5.60 | **807** | **5.48** | 814 | 5.43 | | | | | | | |
| 371.applu331 | 64 | 716 | 8.47 | **724** | **8.37** | 741 | 8.18 | | | | | | | |
| 372.smithwa | 64 | 701 | 7.64 | **703** | **7.62** | 752 | 7.13 | | | | | | | |
| 376.kdtree | 64 | 1904 | 2.36 | **1929** | **2.33** | 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
```

## 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 -mcmodel=medium`

C++ benchmarks:
`-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmodel=medium`

Fortran benchmarks:
`-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmodel=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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