# SPEC® OMPG2012 Result
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## SGI

SGI UV1000 (Intel Xeon E7-8837, 2.66GHz)

$SPECompG\_peak2012 =$ Not Run

$SPECompG\_base2012 =$ 17.7

**OMP2012 license:** 14
**Test sponsor:** SGI
**Tested by:** SGI

**Test date:** Sep-2012
**Hardware Availability:** Apr-2011
**Software Availability:** Aug-2012

| Threads | |
|---|---|
| **350.md** | 128 — 17.8 |
| **351.bwaves** | 128 — 24.9 |
| **352.nab** | 128 — 12.0 |
| **357.bt331** | 128 — 17.2 |
| **358.botsalgn** | 128 — 20.4 |
| **359.botsspar** | 128 — 15.0 |
| **360.ilbdc** | 128 — 11.7 |
| **362.fma3d** | 128 — 8.50 |
| **363.swim** | 128 — 28.8 |
| **367.imagick** | 128 — 13.2 |
| **370.mgrid331** | 128 — 23.1 |
| **371.applu331** | 128 — 11.2 |
| **372.smithwa** | 128 — 54.2 |
| **376.kdtree** | 128 — 20.0 |

SPECompG_base2012 = 17.7
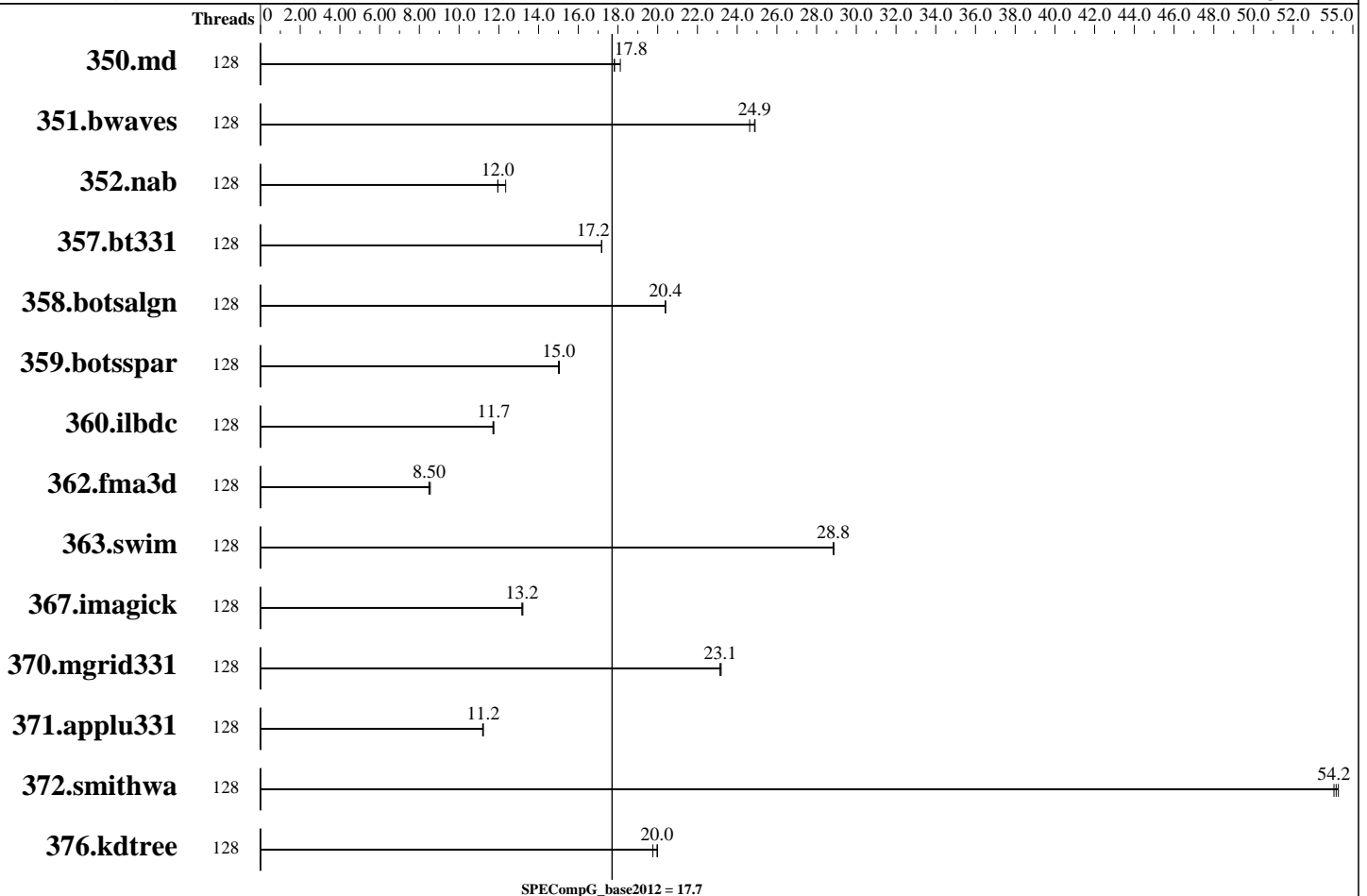
## Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon E7-8837 |
| CPU Characteristics: | Intel Turbo Boost Technology up to 2.80 GHz |
| CPU MHz: | 2667 |
| CPU MHz Maximum: | 2800 |
| FPU: | Integrated |
| CPU(s) enabled: | 128 cores, 16 chips, 8 cores/chip |
| CPU(s) orderable: | 2-256 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: | 24 MB I+D on chip per chip |
| Other Cache: | None |
| Memory: | 512 GB (128 x 4 GB 4Rx8 PC3-8500R-7, ECC) |
| Disk Subsystem: | 10 x 1 TB SAS (Seagate Constellation ES, 7200RPM) |
| Other Hardware: | Routered quad-plane fat tree topology |
| Base Threads Run: | 128 |
| Minimum Peak Threads: | -- |

## Software

| | |
|---|---|
| Operating System: | SUSE Linux Enterprise Server 11 (x86_64) SP1 2.6.32.46-0.3.1.3592.0.PTF-default |
| Compiler: | C/C++/Fortran: Version 13.0 of Intel Composer XE 2013 Build 20120731 |
| Auto Parallel: | No |
| File System: | xfs |
| System State: | Run level 3 ( Multi-user ) |
| Base Pointers: | 64-bit |
| Peak Pointers: | Not Applicable |
| Other Software: | sgi-accelerate-release: SGI Accelerate 1.3, Build 705rp1.sles11-1110302109 sgi-foundation-release: SGI Foundation Software 2.5, Build 705rp1.sles11-1110302109 |

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Maximum Peak Threads:    --

## Results Table

| Benchmark | Threads | Base Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Peak Threads | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 350.md | 128 | 260 | 17.8 | 256 | 18.1 | **260** | **17.8** | | | | | | | |
| 351.bwaves | 128 | **182** | **24.9** | 182 | 24.9 | 184 | 24.6 | | | | | | | |
| 352.nab | 128 | 325 | 12.0 | **325** | **12.0** | 315 | 12.3 | | | | | | | |
| 357.bt331 | 128 | 276 | 17.2 | 276 | 17.2 | **276** | **17.2** | | | | | | | |
| 358.botsalgn | 128 | 213 | 20.4 | 213 | 20.4 | **213** | **20.4** | | | | | | | |
| 359.botsspar | 128 | 349 | 15.0 | 350 | 15.0 | **349** | **15.0** | | | | | | | |
| 360.ilbdc | 128 | 304 | 11.7 | **303** | **11.7** | 303 | 11.7 | | | | | | | |
| 362.fma3d | 128 | 444 | 8.55 | 448 | 8.48 | **447** | **8.50** | | | | | | | |
| 363.swim | 128 | 157 | 28.8 | 157 | 28.9 | **157** | **28.8** | | | | | | | |
| 367.imagick | 128 | 534 | 13.2 | 532 | 13.2 | **534** | **13.2** | | | | | | | |
| 370.mgrid331 | 128 | 191 | 23.2 | **191** | **23.1** | 191 | 23.1 | | | | | | | |
| 371.applu331 | 128 | **540** | **11.2** | 542 | 11.2 | 540 | 11.2 | | | | | | | |
| 372.smithwa | 128 | 98.8 | 54.3 | 99.2 | 54.0 | **99.0** | **54.2** | | | | | | | |
| 376.kdtree | 128 | 228 | 19.8 | **225** | **20.0** | 225 | 20.0 | | | | | | | |

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

## Submit Notes

The config file option 'submit' was used.

## General Notes

```
Software Environment:
    export KMP_AFFINITY=disabled
    export KMP_STACKSIZE=200M
    export KMP_SCHEDULE=static,balanced
    export OMP_DYNAMIC=FALSE
    limit -s unlimited

For all benchmarks threads were bound to cores using
the following submit command:
    dplace -x2 $command
This binds threads in order of creation, beginning
with the master thread on logical cpu 0, the first slave
thread on logical cpu 1, and so on.  The -x2 flag instructs
dplace to skip placement of the lightweight OpenMP monitor
thread, which is created prior to the slave threads.
```

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## Base Compiler Invocation

C benchmarks:
    icc

C++ benchmarks:
    icpc

Fortran benchmarks:
    ifort

## Base Portability Flags

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

## Base Optimization Flags

C benchmarks:
    -O3 -xSSE4.2 -ipo1 -openmp -ansi-alias -mcmodel=medium
    -shared-intel

C++ benchmarks:
    -O3 -xSSE4.2 -ipo1 -openmp -ansi-alias -mcmodel=medium
    -shared-intel

Fortran benchmarks:
    -O3 -xSSE4.2 -ipo1 -openmp -mcmodel=medium -shared-intel

The flags file that was used to format this result can be browsed at
http://www.spec.org/omp2012/flags/SGI-OMP2012-ic13.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/omp2012/flags/SGI-OMP2012-ic13.xml

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

Tested with SPEC OMP2012 v21.
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