SPEC® CFP2006 Result

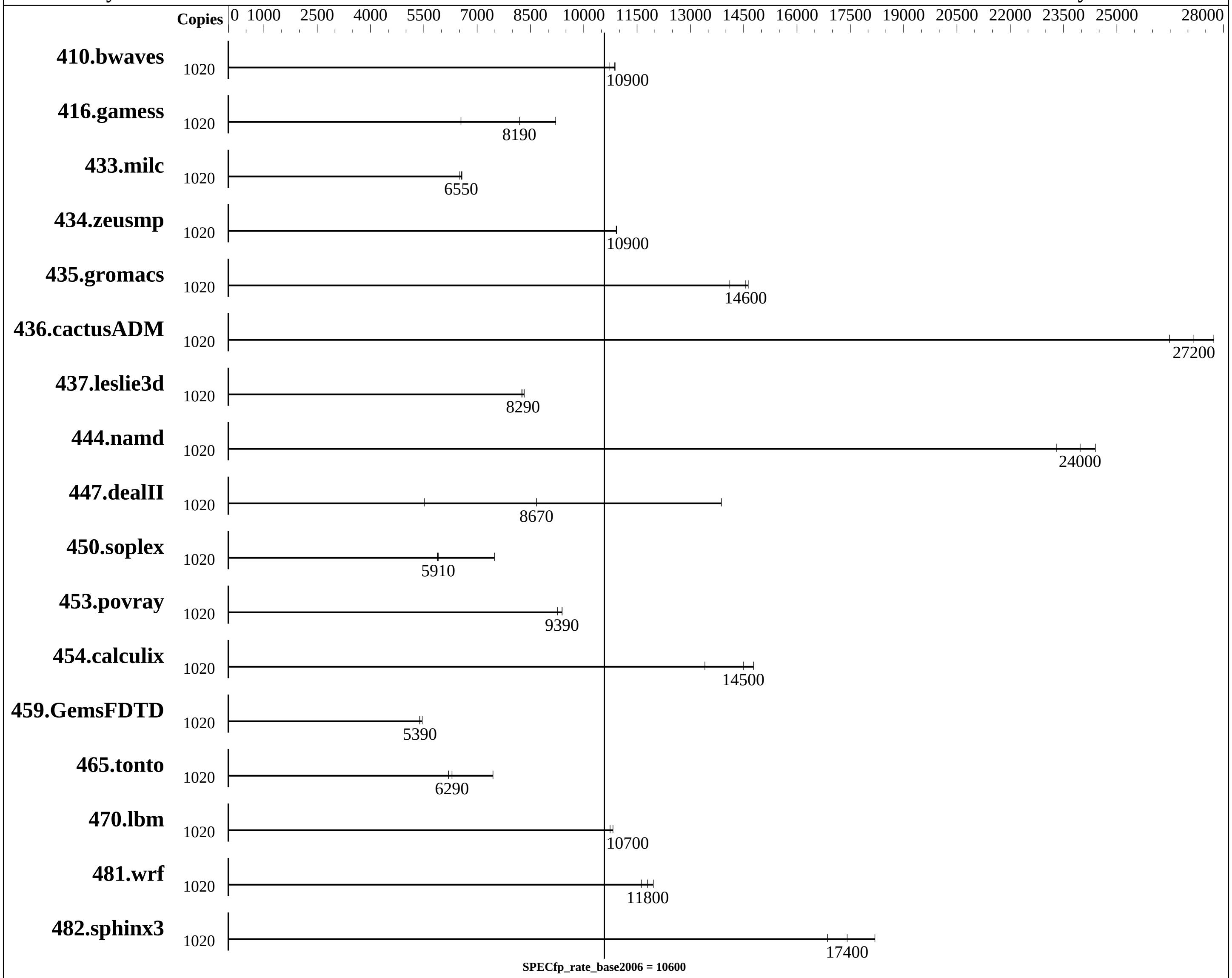
SGI

SGI Altix 4700 Density System (Itanium Processor 9140M 1.66GHz/18M)

SPECfp®_rate2006 = Not Run

SPECfp_rate_base2006 = 10600

CPU2006 license:	4	**Test date:**	Jan-2009
Test sponsor:	SGI	**Hardware Availability:**	Nov-2007
Tested by:	SGI	**Software Availability:**	Nov-2008



Hardware

CPU Name:	Dual-Core Intel Itanium 9140M
CPU Characteristics:	667MHz FSB
CPU MHz:	1669
FPU:	Integrated
CPU(s) enabled:	1024 cores, 512 chips, 2 cores/chip
CPU(s) orderable:	8 to 512 blades with 2 chips per blade
Primary Cache:	16 KB I + 16 KB D on chip per core
Secondary Cache:	1 MB I + 256 KB D on chip per core

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Software

Operating System:	SUSE Linux Enterprise Server 10 (ia64) SP1, Kernel 2.6.16.54-0.2.8.PTF.403865.0-default
Compiler:	Intel Fortran Compiler for Linux 11.1 (Build 20081105) Intel C++ Compiler for Linux 11.1 (Build 20081105)
Auto Parallel:	No
File System:	xfs
System State:	Multi-user, run level 3

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L3 Cache: 9 MB I+D on chip per core
Other Cache: None
Memory: 2 TB (8*1GB DDR2-400 DIMMS per 4 core module)
Disk Subsystem: 23 TB RAID5
160 x 146 GB FC (Seagate Cheetah 15k rpm)
Other Hardware: None

Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other Software: SGI ProPack 5 Service Pack 5

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	1020	1274	10900	**1276**	**10900**	1294	10700							
416.gamess	1020	**2439**	**8190**	3052	6540	2168	9210							
433.milc	1020	1424	6570	**1429**	**6550**	1438	6510							
434.zeusmp	1020	851	10900	849	10900	**850**	**10900**							
435.gromacs	1020	516	14100	**500**	**14600**	498	14600							
436.cactusADM	1020	460	26500	440	27700	**449**	**27200**							
437.leslie3d	1020	1161	8260	**1157**	**8290**	1152	8330							
444.namd	1020	351	23300	**341**	**24000**	335	24400							
447.dealII	1020	841	13900	2113	5520	**1346**	**8670**							
450.soplex	1020	**1440**	**5910**	1445	5890	1136	7490							
453.povray	1020	578	9390	586	9260	**578**	**9390**							
454.calculix	1020	570	14800	**581**	**14500**	628	13400							
459.GemsFDTD	1020	1984	5460	2010	5380	**2008**	**5390**							
465.tonto	1020	1620	6200	**1595**	**6290**	1348	7450							
470.lbm	1020	**1305**	**10700**	1325	10600	1295	10800							
481.wrf	1020	953	12000	980	11600	**966**	**11800**							
482.sphinx3	1020	1179	16900	**1142**	**17400**	1093	18200							

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

```
Processes were bound to CPUs using dplace.
limit stacksize unlimited
echo 0 > /dev/cpuset/memory_spread_slab
echo 0 > /dev/cpuset/memory_spread_page
```

Base Compiler Invocation

C benchmarks:
`icc`

C++ benchmarks:
`icpc`

Fortran benchmarks:
`ifort`

Benchmarks using both Fortran and C:
`icc ifort`

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
450.soplex: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LINUX -DSPEC_CPU_LINUX64_IPF
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
`-fast -fp-relaxed -opt-prefetch-next-iteration -ansi-alias`

C++ benchmarks:
`-fast -fp-relaxed -opt-prefetch-next-iteration -ansi-alias`

Fortran benchmarks:
`-fast -fp-relaxed -opt-prefetch-next-iteration`

Benchmarks using both Fortran and C:
`-fast -fp-relaxed -opt-prefetch-next-iteration -ansi-alias`

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The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic11.0-ipf.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic11.0-ipf.xml

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

Tested with SPEC CPU2006 v1.1.
Report generated on Tue Jul 22 23:12:57 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 17 February 2009.