SPEC® CFP2006 Result

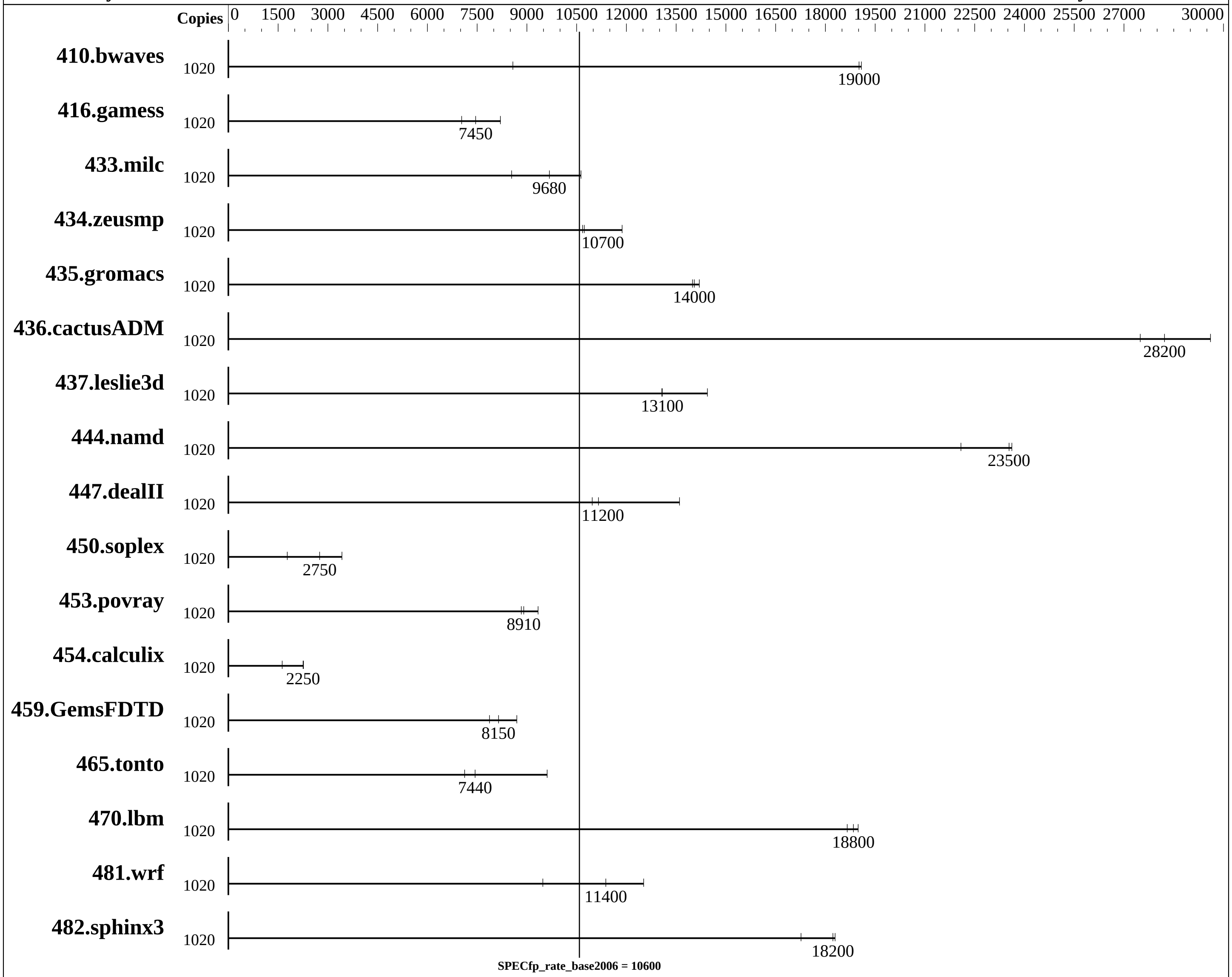
SGI

SGI Altix 4700 Bandwidth System (Dual-Core Intel Itanium 2 9040 1.60GHz/18M)

SPECfp®_rate2006 = Not Run

SPECfp_rate_base2006 = 10600

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



Hardware

CPU Name:	Dual-Core Intel Itanium 2 9040
CPU Characteristics:	533MHz FSB
CPU MHz:	1594
FPU:	Integrated
CPU(s) enabled:	1024 cores, 512 chips, 2 cores/chip
CPU(s) orderable:	8 to 512 blades with 1 chip 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) SP2, Kernel 2.6.16.60-0.35.PTF.352893.0-default
Compiler:	Intel Fortran Compiler for Linux 11.1 (Build 20090630) Intel C++ Compiler for Linux 11.1 (Build 20090630)
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: 4 TB (8*1GB DDR2-400 DIMMS per blade)
Disk Subsystem: 279 TB RAID5
1024 x 300 GB FC (Hitachi Ultrastar 10k rpm)
Other Hardware: None

Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other Software: SGI ProPack 6 Service Pack 2

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	1020	1616	8580	726	19100	**729**	**19000**							
416.gamess	1020	**2679**	**7450**	2839	7030	2435	8200							
433.milc	1020	**967**	**9680**	881	10600	1096	8540							
434.zeusmp	1020	**865**	**10700**	869	10700	782	11900							
435.gromacs	1020	513	14200	**518**	**14000**	521	14000							
436.cactusADM	1020	**432**	**28200**	443	27500	412	29600							
437.leslie3d	1020	734	13100	**733**	**13100**	664	14400							
444.namd	1020	370	22100	346	23600	**348**	**23500**							
447.dealII	1020	1064	11000	**1046**	**11200**	858	13600							
450.soplex	1020	2484	3420	4788	1780	**3090**	**2750**							
453.povray	1020	614	8830	**609**	**8910**	581	9340							
454.calculix	1020	**3735**	**2250**	5182	1620	3715	2260							
459.GemsFDTD	1020	**1329**	**8150**	1375	7870	1244	8700							
465.tonto	1020	1409	7120	1044	9610	**1349**	**7440**							
470.lbm	1020	751	18700	738	19000	**744**	**18800**							
481.wrf	1020	**1001**	**11400**	1202	9480	910	12500							
482.sphinx3	1020	**1091**	**18200**	1152	17300	1087	18300							

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
System was configured with 4-cpu boot cpuset
echo 0 > /dev/cpuset/memory_spread_page
runspec was launched from root cpuset
```

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-issue-excl-hint -ansi-alias`

C++ benchmarks:
`-fast -fp-relaxed -opt-prefetch-issue-excl-hint -ansi-alias`

Fortran benchmarks:
`-fast -fp-relaxed -opt-prefetch-issue-excl-hint`

Benchmarks using both Fortran and C:
`-fast -fp-relaxed -opt-prefetch-issue-excl-hint -ansi-alias`

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic11.1-ipf.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic11.1-ipf.xml

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

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