SPEC® CFP2006 Result

SGI

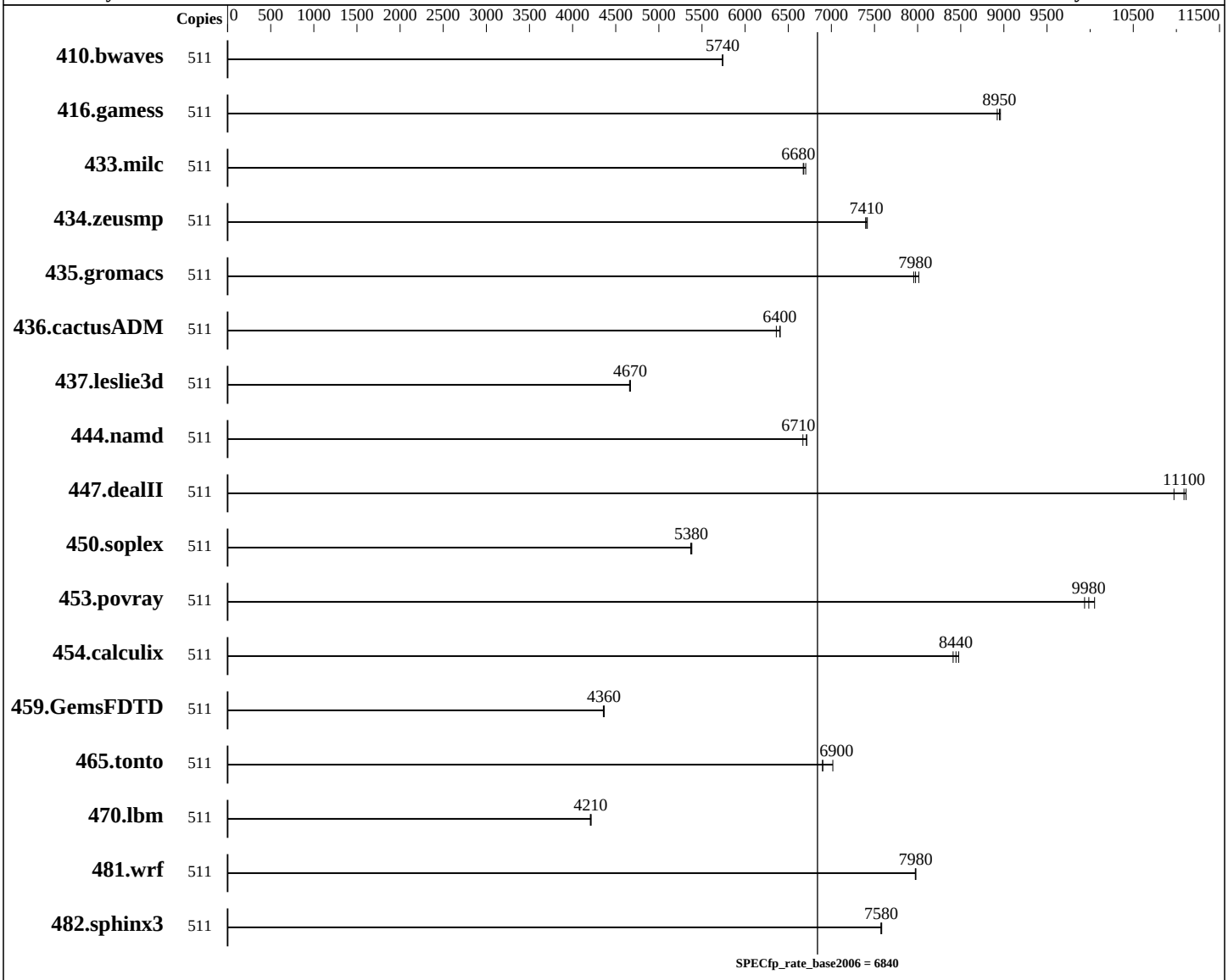
SGI Altix UV 1000 (Intel Xeon X7560, 2.26 GHz)

SPECfp®_rate2006 = Not Run

SPECfp_rate_base2006 = 6840

CPU2006 license: 4
Test sponsor: SGI
Tested by: SGI

Test date: Mar-2010
Hardware Availability: Jun-2010
Software Availability: Jun-2010



Hardware

CPU Name:	Intel Xeon X7560
CPU Characteristics:	Intel Turbo Boost Technology is not-enabled
CPU MHz:	2266
FPU:	Integrated
CPU(s) enabled:	512 cores, 64 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

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Software

Operating System:	SUSE Linux Enterprise Server 11 (x86_64) SP1, Kernel 2.6.32.8-0.3.1-uv
Compiler:	Intel C++ and Fortran Professional Compiler for IA32 and Intel 64, Version 11.1 Build 20091130 Package ID: l_cproc_p_11.1.064, l_cprof_p_11.1.064
Auto Parallel:	No
File System:	tmpfs
System State:	Multi-user, run level 3

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L3 Cache: 24 MB I+D on chip per chip
Other Cache: None
Memory: 2 TB (512 x 4GB dual-rank DDR3-1066 CL7 RDIMMs)
Disk Subsystem: 1 TB tmpfs
Other Hardware: None

Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other Software: Binutils 2.18.50.0.7.20080502

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	511	1210	5740	1210	5740	**1210**	**5740**							
416.gamess	511	1121	8920	**1118**	**8950**	1117	8960							
433.milc	511	703	6670	700	6700	**702**	**6680**							
434.zeusmp	511	**628**	**7410**	629	7400	627	7420							
435.gromacs	511	**457**	**7980**	455	8010	459	7950							
436.cactusADM	511	**954**	**6400**	953	6410	960	6360							
437.leslie3d	511	**1029**	**4670**	1031	4660	1029	4670							
444.namd	511	610	6710	614	6670	**611**	**6710**							
447.dealII	511	526	11100	**527**	**11100**	533	11000							
450.soplex	511	**793**	**5380**	792	5380	794	5370							
453.povray	511	**272**	**9980**	274	9940	270	10100							
454.calculix	511	501	8410	497	8480	**499**	**8440**							
459.GemsFDTD	511	1242	4370	**1242**	**4360**	1245	4360							
465.tonto	511	717	7020	729	6900	**729**	**6900**							
470.lbm	511	**1668**	**4210**	1666	4220	1669	4210							
481.wrf	511	**715**	**7980**	716	7970	715	7980							
482.sphinx3	511	1313	7580	1315	7570	**1314**	**7580**							

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.
numactl was used to bind copies to the cores
```

Operating System Notes

```
Tmpfs filesystem set up with:
  mkdir -p /mnt/shm
  mount -t tmpfs -o rw,mpol=interleave tmpfs /mnt/shm/
  The mpol=interleave option sets the NUMA memory allocation
  policy for all files to allocate from each node in turn.
```

Platform Notes

```
Hyperthreading disabled in BIOS
```

Base Compiler Invocation

C benchmarks:
```
icc   -m64
```

C++ benchmarks:
```
icpc  -m64
```

Fortran benchmarks:
```
ifort -m64
```

Benchmarks using both Fortran and C:
```
icc   -m64 ifort -m64
```

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_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
```
-xSSE4.2 -ipo -O3 -no-prec-div -static
```

C++ benchmarks:
```
-xSSE4.2 -ipo -O3 -no-prec-div -static
```

Fortran benchmarks:
```
-xSSE4.2 -ipo -O3 -no-prec-div -static
```

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Base Optimization Flags (Continued)

Benchmarks using both Fortran and C:
`-xSSE4.2 -ipo -O3 -no-prec-div -static`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.xml`

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

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