SPEC® CFP2006 Result

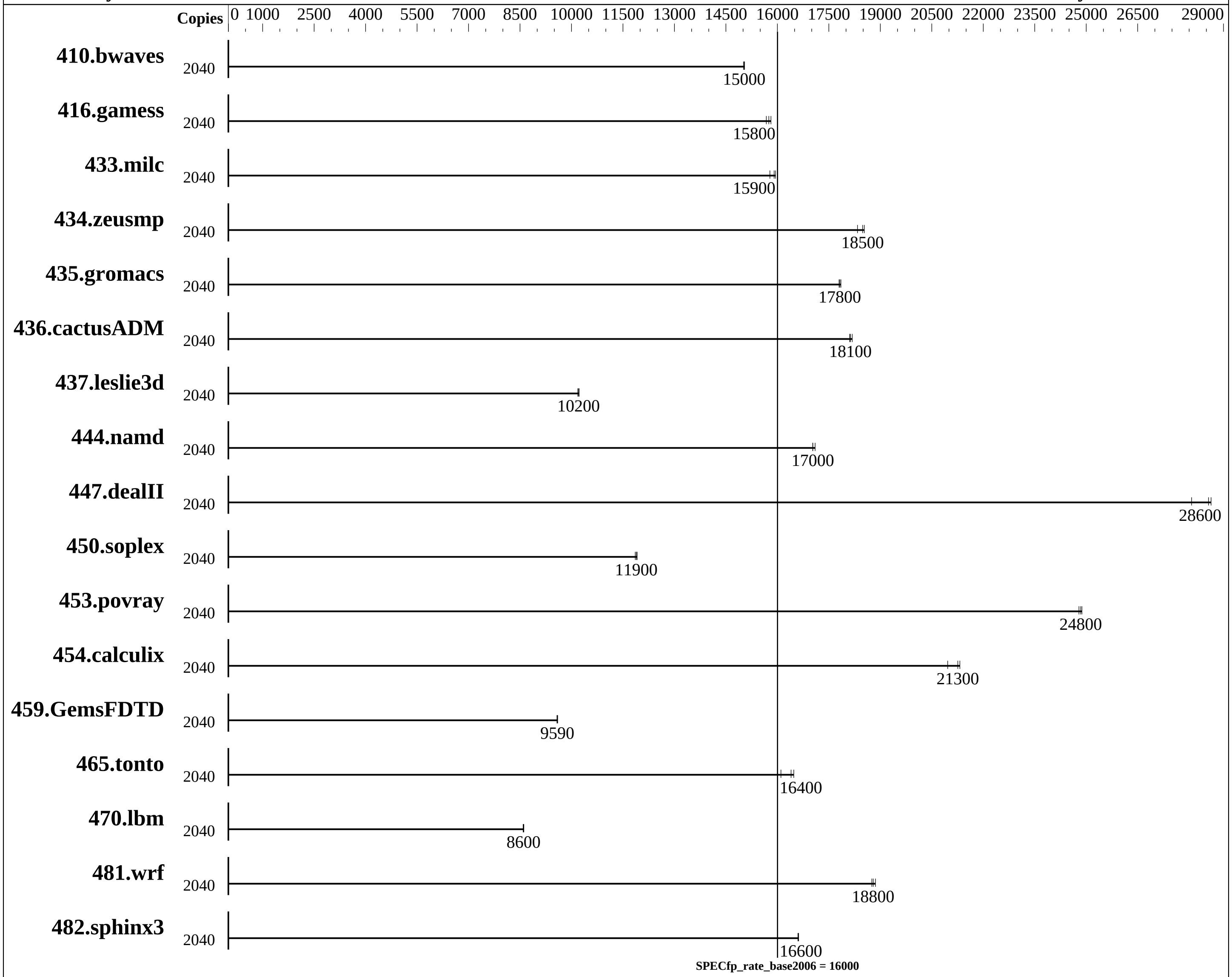
SGI

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

SPECfp®_rate2006 = Not Run

SPECfp_rate_base2006 = 16000

CPU2006 license:	4	**Test date:**	Jun-2010
Test sponsor:	SGI	**Hardware Availability:**	Jun-2010
Tested by:	SGI	**Software Availability:**	Jun-2010



Hardware

CPU Name:	Intel Xeon X7560
CPU Characteristics:	Intel Turbo Boost Technology up to 2.67 GHz
CPU MHz:	2266
FPU:	Integrated
CPU(s) enabled:	1024 cores, 128 chips, 8 cores/chip, 2 threads/core
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 2.6.32.12-0.7.1.1381.0.PTF-default
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:	5 TB (768 x 4GB + 256 x 8GB dual-rank DDR3-1066 CL7 RDIMMs)
Disk Subsystem:	4 TB tmpfs
Other Hardware:	None

Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	Binutils 2.18.50.0.7.20080502

Results Table

	Base							Peak						
Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	2040	1847	15000	1843	15000	**1844**	**15000**							
416.gamess	2040	**2536**	**15800**	2548	15700	2526	15800							
433.milc	2040	1187	15800	**1177**	**15900**	1174	15900							
434.zeusmp	2040	1013	18300	**1004**	**18500**	1002	18500							
435.gromacs	2040	818	17800	**817**	**17800**	816	17900							
436.cactusADM	2040	**1345**	**18100**	1341	18200	1346	18100							
437.leslie3d	2040	1876	10200	**1878**	**10200**	1883	10200							
444.namd	2040	961	17000	957	17100	**961**	**17000**							
447.dealII	2040	**817**	**28600**	815	28600	831	28100							
450.soplex	2040	1435	11900	**1431**	**11900**	1428	11900							
453.povray	2040	**437**	**24800**	436	24900	438	24800							
454.calculix	2040	789	21300	**792**	**21300**	803	21000							
459.GemsFDTD	2040	**2258**	**9590**	2260	9580	2255	9600							
465.tonto	2040	1218	16500	1247	16100	**1224**	**16400**							
470.lbm	2040	**3257**	**8600**	3255	8610	3263	8590							
481.wrf	2040	1215	18800	1208	18900	**1213**	**18800**							
482.sphinx3	2040	**2393**	**16600**	2393	16600	2395	16600							

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 size=4096g,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.
```

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Hardware Availability: Jun-2010
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General Notes

```
Memory configuration:
  The 4 GB DIMMs are attached to chips 0-95;
  the 8 GB DIMMs are attached to chips 96-127.
```

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

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Base Optimization Flags (Continued)

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

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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