SPEC® CFP2006 Result

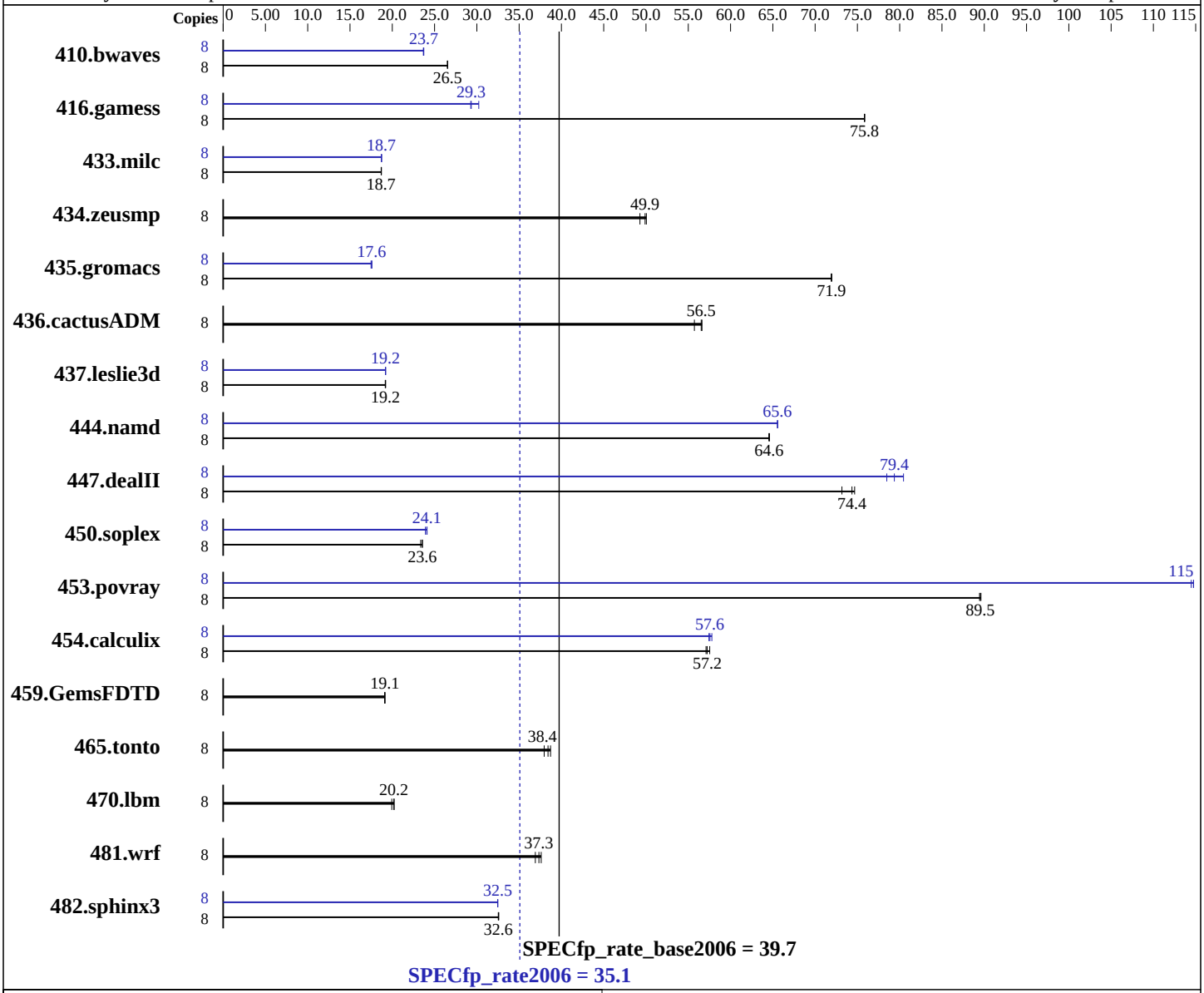
Supermicro
Motherboard X7DA8+

SPECfp®_rate2006 = 35.1

SPECfp_rate_base2006 = 39.7

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: Apr-2007
Hardware Availability: May-2007
Software Availability: Apr-2007



Hardware

CPU Name:	Intel Xeon L5310
CPU Characteristics:	1.60GHz, 1066 MHz Bus
CPU MHz:	1600
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip
CPU(s) orderable:	1, 2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	8 MB I+D on chip per chip, 4 MB shared / 2 cores

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Software

Operating System:	Windows Server 2003 Enterprise Edition W/ SP1
Compiler:	Intel C++ Compiler for IA32 version 9.1 Build no 20070322Z Intel Fortran Compiler for IA32 version 9.1 Build no 20070322Z Microsoft Visual Studio .Net 2003 (for libraries)
Auto Parallel:	Yes
File System:	NTFS
System State:	Default

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L3 Cache: None
Other Cache: None
Memory: 16 GB (8 X 2GB ECC PC2-5300, CL5, FBDIMM)
Disk Subsystem: 750GB IDE, 7200RPM
Other Hardware: None

Base Pointers: 32-bit
Peak Pointers: 32-bit
Other Software: SmartHeap Library Version 8.0

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	4096	26.5	4099	26.5	**4098**	**26.5**	8	4593	23.7	4583	23.7	**4585**	**23.7**
416.gamess	8	**2065**	**75.8**	2065	75.9	2066	75.8	8	5182	30.2	5350	29.3	**5339**	**29.3**
433.milc	8	3924	18.7	3930	18.7	**3929**	**18.7**	8	3924	18.7	**3922**	**18.7**	3921	18.7
434.zeusmp	8	**1459**	**49.9**	1455	50.0	1477	49.3	8	**1459**	**49.9**	1455	50.0	1477	49.3
435.gromacs	8	**794**	**71.9**	794	72.0	794	71.9	8	3250	17.6	**3250**	**17.6**	3266	17.5
436.cactusADM	8	1716	55.7	1688	56.6	**1691**	**56.5**	8	1716	55.7	1688	56.6	**1691**	**56.5**
437.leslie3d	8	3923	19.2	3915	19.2	**3917**	**19.2**	8	3915	19.2	3917	19.2	**3917**	**19.2**
444.namd	8	994	64.5	993	64.6	**994**	**64.6**	8	979	65.6	**979**	**65.6**	979	65.5
447.dealII	8	1251	73.2	1226	74.7	**1231**	**74.4**	8	1166	78.5	**1153**	**79.4**	1138	80.5
450.soplex	8	2857	23.4	**2833**	**23.6**	2832	23.6	8	2790	23.9	**2771**	**24.1**	2767	24.1
453.povray	8	476	89.4	475	89.6	**475**	**89.5**	8	372	114	371	115	**371**	**115**
454.calculix	8	1156	57.1	**1153**	**57.2**	1147	57.5	8	**1147**	**57.6**	1142	57.8	1149	57.4
459.GemsFDTD	8	4446	19.1	**4437**	**19.1**	4436	19.1	8	4446	19.1	**4437**	**19.1**	4436	19.1
465.tonto	8	2074	38.0	**2049**	**38.4**	2033	38.7	8	2074	38.0	**2049**	**38.4**	2033	38.7
470.lbm	8	5512	19.9	5436	20.2	**5444**	**20.2**	8	5512	19.9	5436	20.2	**5444**	**20.2**
481.wrf	8	2421	36.9	**2393**	**37.3**	2376	37.6	8	2421	36.9	**2393**	**37.3**	2376	37.6
482.sphinx3	8	**4789**	**32.6**	4783	32.6	4793	32.5	8	4804	32.5	**4803**	**32.5**	4799	32.5

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

General Notes

```
Tested systems can be used with CSE-833S-R760 case,
To ensure system stability, a 500W (minimum) ATX power supply [4-pin (+12V), 8-pin (+12V) and 24-pin are required]
Product description located as of http://www.supermicro.com/products/motherboard/Xeon1333/5000X/X7DA8+.cfm
The system bus runs at 1066 MHz
```

Base Compiler Invocation

C benchmarks:

```
icl -Qvc7.1 -Qc99
```

C++ benchmarks:

```
icl -Qvc7.1
```

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Base Compiler Invocation (Continued)

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc7.1 -Qc99 ifort

Base Portability Flags

436.cactusADM: -Qlowercase /assume:underscore
444.namd: -TP
447.dealII: -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG -DBOOST_NO_INTRINSIC_WCHAR_T
453.povray: -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_NOZMODIFIER -Qlowercase
481.wrf: -DSPEC_CPU_WINDOWS_ICL

Base Optimization Flags

C benchmarks:
-fast /F950000000 shlw32m.lib -link /FORCE:MULTIPLE

C++ benchmarks:
-fast -Qcxx_features /F950000000 shlw32m.lib -link /FORCE:MULTIPLE

Fortran benchmarks:
-fast /F950000000 -link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:
-fast /F950000000 -link /FORCE:MULTIPLE

Peak Compiler Invocation

C benchmarks:
icl -Qvc7.1 -Qc99

C++ benchmarks:
icl -Qvc7.1

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc7.1 -Qc99 ifort

Peak Portability Flags

436.cactusADM: -Qlowercase /assume:underscore
444.namd: -TP
447.dealII: -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
-DBOOST_NO_INTRINSIC_WCHAR_T
453.povray: -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_NOZMODIFIER -Qlowercase
481.wrf: -DSPEC_CPU_WINDOWS_ICL

Peak Optimization Flags

C benchmarks:

433.milc: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast /F950000000
shlw32m.lib -link /FORCE:MULTIPLE

470.lbm: basepeak = yes

482.sphinx3: -Qprof_gen(pass 1) -Qprof_use(pass 2) -QxB -Qipo -O3
-Qprec-div- /F950000000 shlw32m.lib
-link /FORCE:MULTIPLE

C++ benchmarks:
-Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qcxx_features
/F950000000 shlw32m.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

410.bwaves: -QxW -Qparallel -Qipo -O3 -Qprec-div- /F950000000
libguide.lib libguide40.lib -link /FORCE:MULTIPLE

416.gamess: Same as 410.bwaves

434.zeusmp: basepeak = yes

437.leslie3d: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast /F950000000
-link /FORCE:MULTIPLE

459.GemsFDTD: basepeak = yes

465.tonto: basepeak = yes

Benchmarks using both Fortran and C:

435.gromacs: -QxW -Qparallel -Qipo -O3 -Qprec-div- /F950000000
shlw32m.lib libguide.lib libguide40.lib
-link /FORCE:MULTIPLE

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Peak Optimization Flags (Continued)

436.cactusADM: `basepeak = yes`

454.calculix: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-fast /F950000000 -link /FORCE:MULTIPLE`

481.wrf: `basepeak = yes`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic91-ia32-flags.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic91-ia32-flags.xml`

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

Tested with SPEC CPU2006 v1.0.1.
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