SPEC® CFP2006 Result

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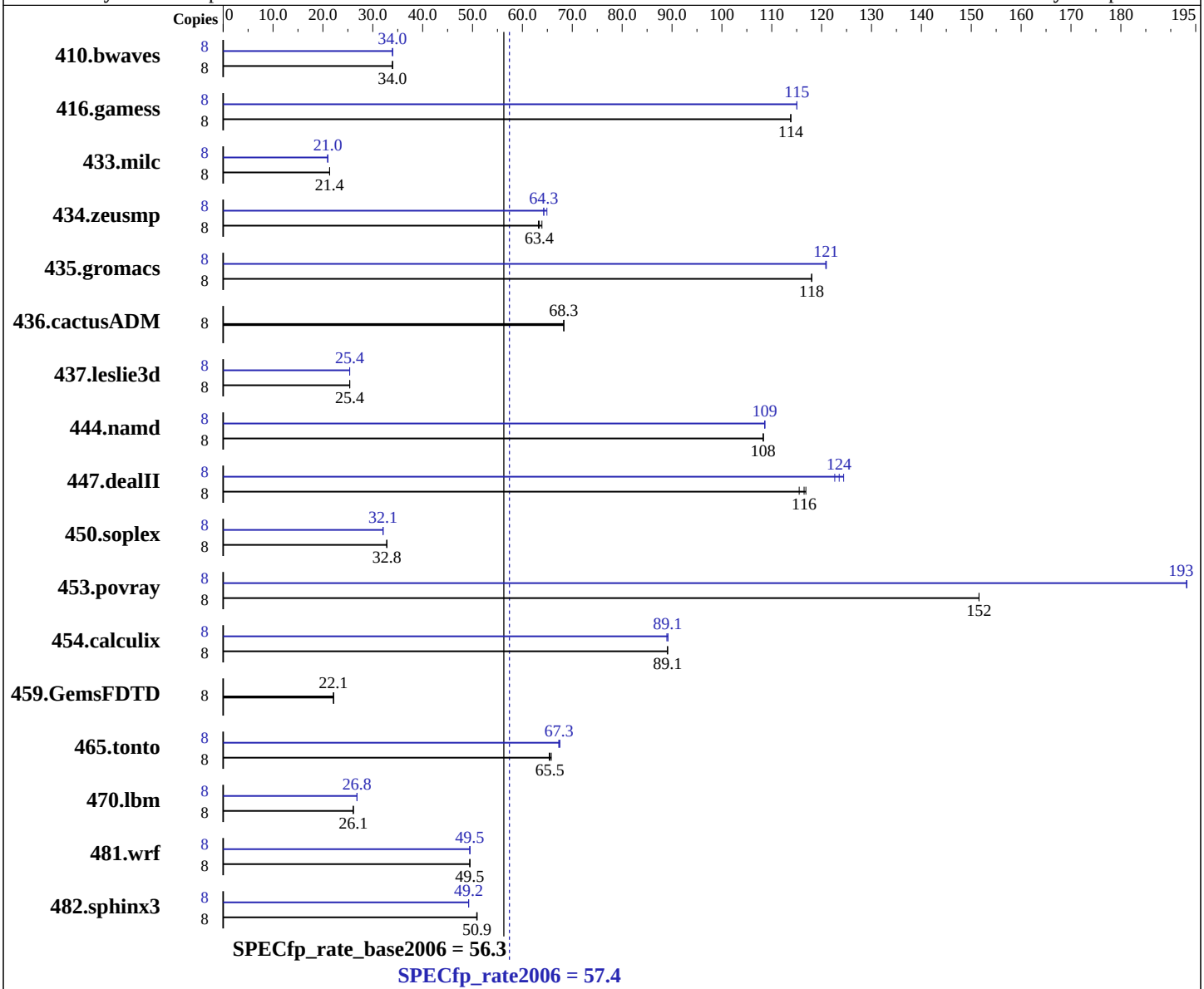
Supermicro Motherboard X7DB8

SPECfp®_rate2006 = 57.4

SPECfp_rate_base2006 = 56.3

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

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



Hardware

CPU Name:	Intel Xeon X5355
CPU Characteristics:	2.67GHz 1333MHz System Bus
CPU MHz:	2667
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 10.0 Build 20070426 Package ID: W_CC_P_10.0.025 Intel Fortran Compiler for IA32 version 10.0 Build 20070426 Package ID: W_FC_P_10.0.025 Microsoft Visual Studio .Net 2003 (for libraries)
Auto Parallel:	No
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: Seagate ST3750640AS 750GB SATA II, 7200RPM
Other Hardware: None

Base Pointers: 32-bit
Peak Pointers: 32-bit
Other Software: None
SmartHeap Library Version 8.0 from http://www.microquill.com/

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	3204	33.9	**3200**	**34.0**	3200	34.0	8	**3200**	**34.0**	3202	34.0	3200	34.0
416.gamess	8	1376	114	**1376**	**114**	1376	114	8	1362	115	1361	115	**1362**	**115**
433.milc	8	3440	21.3	**3440**	**21.4**	3439	21.4	8	**3502**	**21.0**	3502	21.0	3501	21.0
434.zeusmp	8	1139	63.9	1152	63.2	**1148**	**63.4**	8	**1132**	**64.3**	1133	64.3	1121	64.9
435.gromacs	8	484	118	**484**	**118**	484	118	8	**473**	**121**	472	121	473	121
436.cactusADM	8	1400	68.3	1400	68.3	**1400**	**68.3**	8	1400	68.3	1400	68.3	**1400**	**68.3**
437.leslie3d	8	**2964**	**25.4**	2964	25.4	2962	25.4	8	2963	25.4	2965	25.4	**2965**	**25.4**
444.namd	8	592	108	**592**	**108**	592	108	8	**591**	**109**	591	109	591	109
447.dealII	8	792	115	783	117	**786**	**116**	8	746	123	736	124	**741**	**124**
450.soplex	8	**2033**	**32.8**	2033	32.8	2033	32.8	8	2081	32.1	2082	32.1	**2081**	**32.1**
453.povray	8	281	152	281	152	**281**	**152**	8	220	193	**220**	**193**	220	193
454.calculix	8	741	89.1	741	89.1	**741**	**89.1**	8	742	89.0	740	89.2	**740**	**89.1**
459.GemsFDTD	8	3834	22.1	3836	22.1	**3835**	**22.1**	8	3834	22.1	3836	22.1	**3835**	**22.1**
465.tonto	8	**1201**	**65.5**	1204	65.4	1196	65.8	8	1170	67.3	1166	67.5	**1169**	**67.3**
470.lbm	8	**4213**	**26.1**	4213	26.1	4213	26.1	8	4095	26.8	**4095**	**26.8**	4095	26.8
481.wrf	8	1808	49.4	**1806**	**49.5**	1806	49.5	8	1807	49.5	**1807**	**49.5**	1806	49.5
482.sphinx3	8	3062	50.9	3067	50.8	**3063**	**50.9**	8	3168	49.2	**3168**	**49.2**	3168	49.2

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-825S2-R700LPV 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/Xeon1333/5000P/X7DB8.cfm
The system bus runs at 1333 MHz
submit was used to bind processes to cores
```

Base Compiler Invocation

C benchmarks:

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

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Base Compiler Invocation (Continued)

C++ benchmarks:
icl -Qvc7.1

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

Benchmarks using both Fortran and C:
-fast /F950000000

Peak Compiler Invocation

C benchmarks:
icl -Qvc7.1 -Qc99

C++ benchmarks:
icl -Qvc7.1

Fortran benchmarks:
ifort

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Peak Compiler Invocation (Continued)

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 -Qunroll2 -Oa
/F950000000 shlw32m.lib -link /FORCE:MULTIPLE

470.lbm: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qunroll2
-Qscalar-rep- -Qprefetch /F950000000 shlw32m.lib
-link /FORCE:MULTIPLE

482.sphinx3: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qunroll2
/F950000000 shlw32m.lib -link /FORCE:MULTIPLE

C++ benchmarks:

444.namd: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Oa
-Qcxx_features /F950000000 shlw32m.lib
-link /FORCE:MULTIPLE

447.dealII: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qprefetch
-Qcxx_features /F950000000 shlw32m.lib
-link /FORCE:MULTIPLE

450.soplex: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qcxx_features
/F950000000 shlw32m.lib -link /FORCE:MULTIPLE

453.povray: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qansi-alias
-Qcxx_features /F950000000 shlw32m.lib
-link /FORCE:MULTIPLE

Fortran benchmarks:

Continued on next page

Peak Optimization Flags (Continued)

410.bwaves: `-fast /F950000000`

416.gamess: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-fast -Qunroll2 -Ob0 -Qansi-alias -Qscalar-rep- /F950000000`

434.zeusmp: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-QxT -O2 -Qprec_div- -Qunroll0 -Qscalar-rep- /F950000000`

437.leslie3d: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-fast /F950000000`

459.GemsFDTD: `basepeak = yes`

465.tonto: `Same as 437.leslie3d`

Benchmarks using both Fortran and C:

435.gromacs: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-fast -Oa /F950000000`

436.cactusADM: `basepeak = yes`

454.calculix: `-fast /F950000000`

481.wrf: `Same as 454.calculix`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.18.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.18.xml`

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Tested with SPEC CPU2006 v1.0.
Report generated on Tue Jul 22 12:55:52 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 8 August 2007.