SPEC® CFP2006 Result

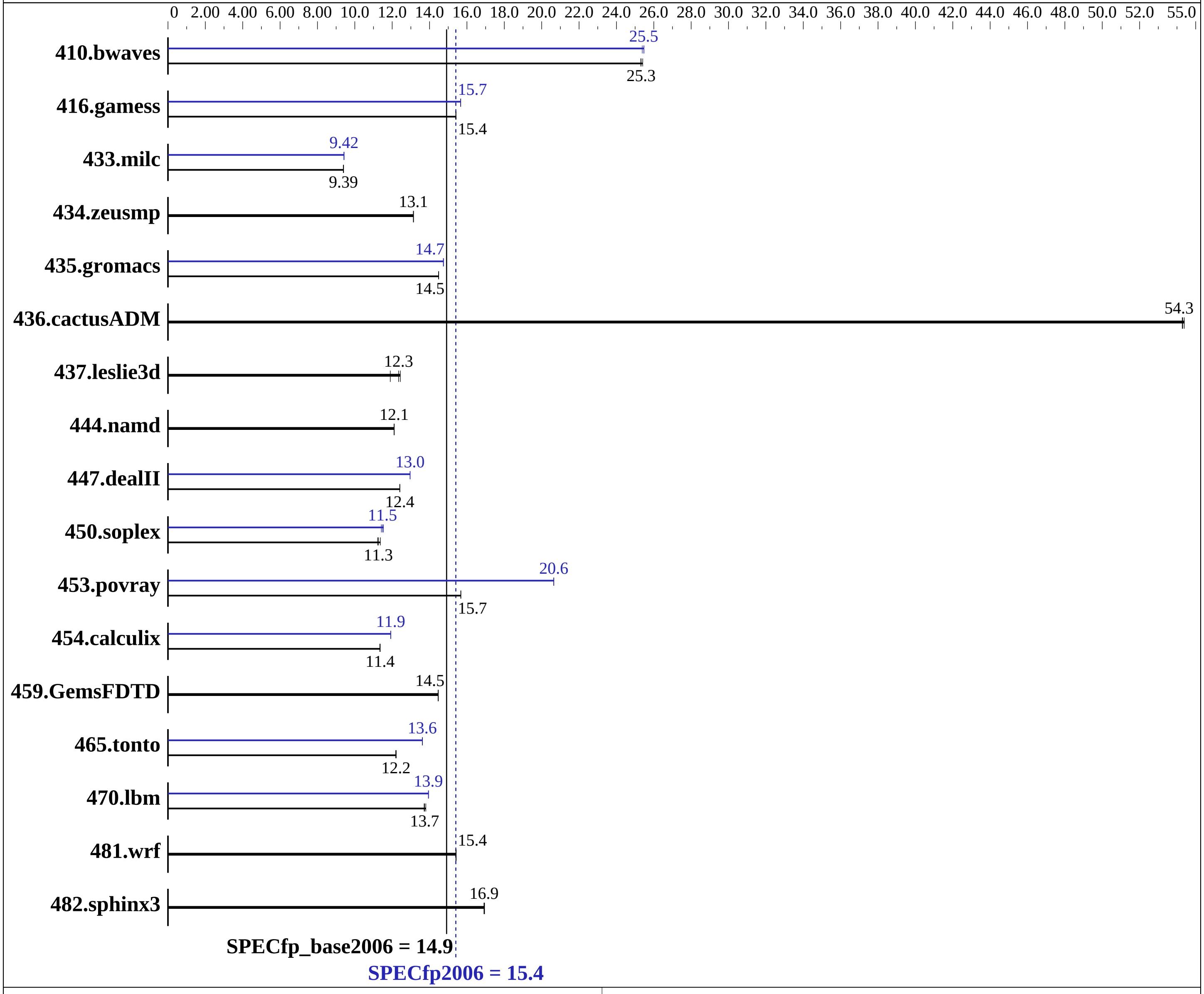
Fujitsu Siemens Computers

CELSIUS R540, Intel Xeon processor E5345

SPECfp®2006 = 15.4

SPECfp_base2006 = 14.9

CPU2006 license:	22	**Test date:**	Mar-2007
Test sponsor:	Fujitsu Siemens Computers	**Hardware Availability:**	Nov-2006
Tested by:	Fujitsu Siemens Computers	**Software Availability:**	Nov-2006



Hardware

CPU Name:	Intel Xeon E5345
CPU Characteristics:	E5345
CPU MHz:	2333
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 XP, 64 bit Edition
Compiler:	Intel C++ Compiler for EM64T-based applications - version 9.1, Build 20061104 Intel Fortran Compiler for EM64T-based applications - version 9.1, Build 20061104 Microsoft Visual Studio 2005 (for libraries)
Auto Parallel:	Yes
File System:	NTFS

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L3 Cache: None
Other Cache: None
Memory: 8 GB (4x2 GB DDR2 5300F, 2 rank, CL5-5-5,with ECC)
Disk Subsystem: SATA II 7200 rpm
Other Hardware: None

System State: Default
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other Software: None

Results Table

Benchmark	Base Seconds	Base Ratio	Base Seconds	Base Ratio	Base Seconds	Base Ratio	Peak Seconds	Peak Ratio	Peak Seconds	Peak Ratio	Peak Seconds	Peak Ratio
410.bwaves	**537**	**25.3**	535	25.4	537	25.3	**534**	**25.5**	534	25.5	535	25.4
416.gamess	1270	15.4	**1271**	**15.4**	1271	15.4	1250	15.7	**1250**	**15.7**	1250	15.7
433.milc	977	9.40	978	9.38	**977**	**9.39**	**974**	**9.42**	974	9.43	975	9.41
434.zeusmp	692	13.1	**693**	**13.1**	693	13.1	692	13.1	**693**	**13.1**	693	13.1
435.gromacs	493	14.5	493	14.5	**493**	**14.5**	484	14.7	**484**	**14.7**	484	14.8
436.cactusADM	220	54.4	220	54.3	**220**	**54.3**	220	54.4	220	54.3	**220**	**54.3**
437.leslie3d	790	11.9	**762**	**12.3**	756	12.4	790	11.9	**762**	**12.3**	756	12.4
444.namd	663	12.1	662	12.1	**662**	**12.1**	663	12.1	662	12.1	**662**	**12.1**
447.dealII	923	12.4	922	12.4	**922**	**12.4**	883	13.0	**883**	**13.0**	883	13.0
450.soplex	734	11.4	743	11.2	**740**	**11.3**	**726**	**11.5**	723	11.5	730	11.4
453.povray	339	15.7	339	15.7	**339**	**15.7**	258	20.6	258	20.6	**258**	**20.6**
454.calculix	726	11.4	**727**	**11.4**	728	11.3	692	11.9	**692**	**11.9**	692	11.9
459.GemsFDTD	734	14.5	**734**	**14.5**	733	14.5	734	14.5	**734**	**14.5**	733	14.5
465.tonto	807	12.2	806	12.2	**806**	**12.2**	**723**	**13.6**	723	13.6	722	13.6
470.lbm	996	13.8	**1000**	**13.7**	1002	13.7	**986**	**13.9**	985	13.9	986	13.9
481.wrf	725	15.4	**724**	**15.4**	724	15.4	725	15.4	**724**	**15.4**	724	15.4
482.sphinx3	1150	16.9	**1152**	**16.9**	1152	16.9	1150	16.9	**1152**	**16.9**	1152	16.9

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

Platform Notes

```
BIOS default settings have been used, except:
Snoop Filter Enabled
  (The Snoop Filter is designed to reduce system bus utilization coming
  from cache misses. It can lead to significant memory performance
  improvements for several workstation applications on suitable memory
  configurations.)
Adjacent Cache Line Prefetch Enabled
  (Prefetches a cache line pair of data instead of only the cache line
  that contains the requested data. This helps to improve data access time
  for some applications, especially for single processors.)
```

General Notes

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For information about Fujitsu Siemens Computers in your country please see:
http://www.fujitsu-siemens.com/countries
```

Base Compiler Invocation

C benchmarks:
`icl -Qvc8 -Qc99`

C++ benchmarks:
`icl -Qvc8`

Fortran benchmarks:
`ifort`

Benchmarks using both Fortran and C:
`icl -Qvc8 -Qc99 ifort`

Base Portability Flags

410.bwaves: -DSPEC_CPU_P64
416.gamess: -DSPEC_CPU_P64
433.milc: -D_Complex= -DSPEC_CPU_P64
434.zeusmp: -DSPEC_CPU_P64
435.gromacs: -D_Complex= -DSPEC_CPU_P64
436.cactusADM: -D_Complex= -DSPEC_CPU_P64 -Qlowercase /assume:underscore
437.leslie3d: -DSPEC_CPU_P64
444.namd: -DSPEC_CPU_P64 /TP
447.dealII: -D_Complex= -DSPEC_CPU_P64 -DBOOST_NO_INTRINSIC_WCHAR_T -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
450.soplex: -DSPEC_CPU_P64
453.povray: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
454.calculix: -D_Complex= -DSPEC_CPU_P64 -DSPEC_CPU_NOZMODIFIER -Qlowercase
459.GemsFDTD: -DSPEC_CPU_P64
465.tonto: -DSPEC_CPU_P64
470.lbm: -D_Complex= -DSPEC_CPU_P64
481.wrf: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
482.sphinx3: -D_Complex= -DSPEC_CPU_P64

Base Optimization Flags

C benchmarks:
`-fast -Qparallel -F950000000`

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Base Optimization Flags (Continued)

C++ benchmarks:
`-fast -Qparallel -Qcxx-features -F950000000`

Fortran benchmarks:
`-fast -Qparallel -F950000000`

Benchmarks using both Fortran and C:
`-fast -Qparallel -F950000000`

Peak Compiler Invocation

C benchmarks:
`icl -Qvc8 -Qc99`

C++ benchmarks:
`icl -Qvc8`

Fortran benchmarks:
`ifort`

Benchmarks using both Fortran and C:
`icl -Qvc8 -Qc99 ifort`

Peak Portability Flags

`Same as Base Portability Flags`

Peak Optimization Flags

C benchmarks:

433.milc: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-fast -F950000000`

470.lbm: `Same as 433.milc`

482.sphinx3: `basepeak = yes`

C++ benchmarks:

444.namd: `basepeak = yes`

447.dealII: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-fast -Qcxx-features -F950000000`

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Peak Optimization Flags (Continued)

450.soplex: `Same as 447.dealII`

453.povray: `Same as 447.dealII`

Fortran benchmarks:

410.bwaves: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-fast -Qparallel -F950000000`

416.gamess: `-fast -F950000000`

434.zeusmp: `basepeak = yes`

437.leslie3d: `basepeak = yes`

459.GemsFDTD: `basepeak = yes`

465.tonto: `Same as 410.bwaves`

Benchmarks using both Fortran and C:

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

436.cactusADM: `basepeak = yes`

454.calculix: `Same as 435.gromacs`

481.wrf: `basepeak = yes`

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.20.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.20.xml

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

Tested with SPEC CPU2006 v1.0.
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