SPEC® CFP2006 Result

Fujitsu Siemens Computers

PRIMERGY RX300 S4, Intel Xeon processor E5440, 2.83 GHz

$SPECfp®\_rate2006 =$ 67.6

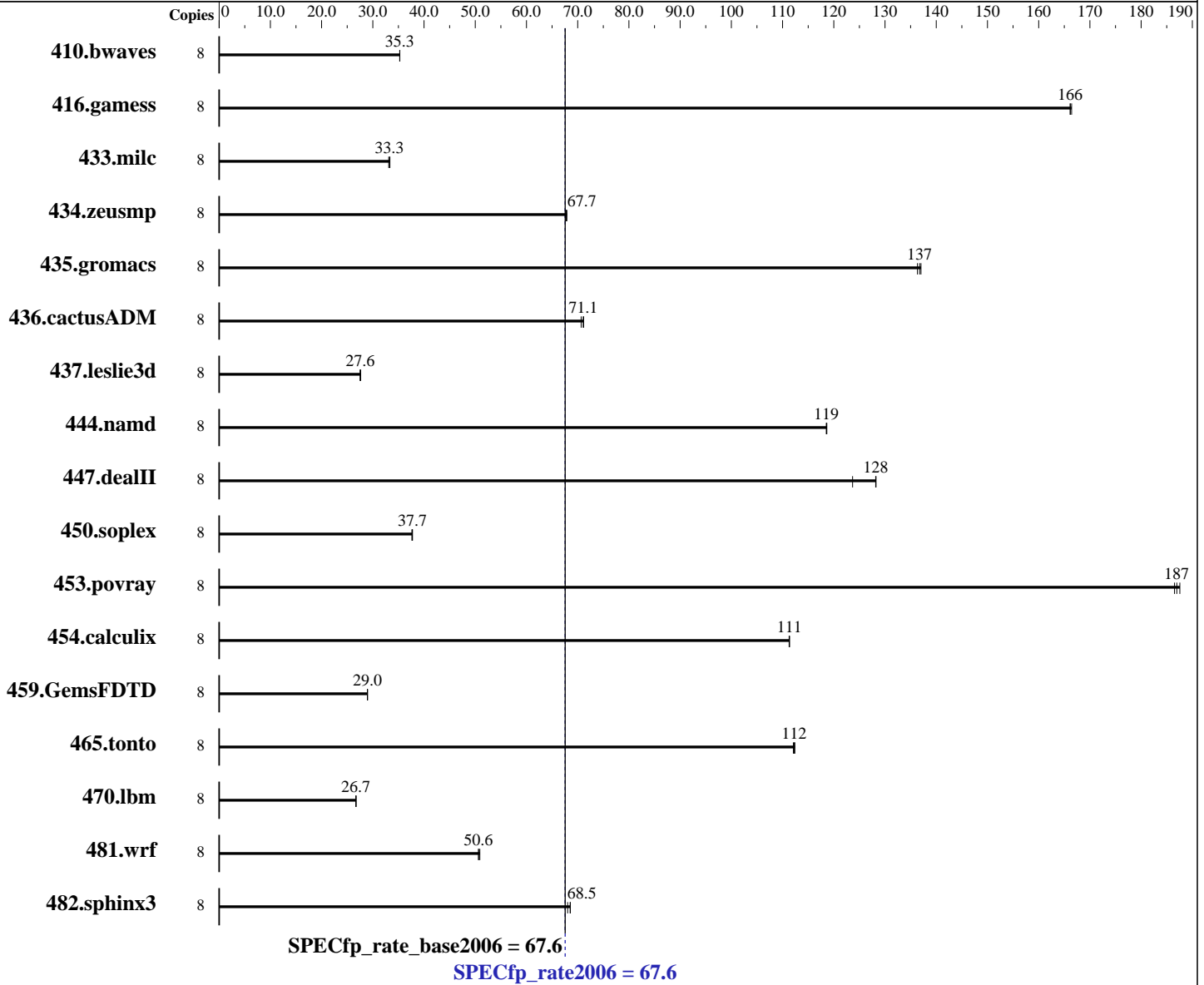$SPECfp\_rate\_base2006 =$ 67.6

CPU2006 license: 22
Test sponsor: Fujitsu Siemens Computers
Tested by: Fujitsu Siemens Computers

Test date: Oct-2007
Hardware Availability: Dec-2007
Software Availability: Nov-2007

Copies	Benchmark	Result
8	410.bwaves	35.3
8	416.gamess	166
8	433.milc	33.3
8	434.zeusmp	67.7
8	435.gromacs	137
8	436.cactusADM	71.1
8	437.leslie3d	27.6
8	444.namd	119
8	447.dealII	128
8	450.soplex	37.7
8	453.povray	187
8	454.calculix	111
8	459.GemsFDTD	29.0
8	465.tonto	112
8	470.lbm	26.7
8	481.wrf	50.6
8	482.sphinx3	68.5

SPECfp_rate_base2006 = 67.6
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Hardware

CPU Name: Intel Xeon E5440
CPU Characteristics: 1333 MHz system bus
CPU MHz: 2833
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: 12 MB I+D on chip per chip, 6 MB shared / 2 cores

Continued on next page

Software

Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP1, Kernel 2.6.16.46-0.12-smp
Compiler: Intel C++ and Fortran Compiler for Linux32 and Linux64 Version 10.1 - Build 20070725
Auto Parallel: No
File System: ext2
System State: Multiuser, Runlevel 3
Base Pointers: 64-bit

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L3 Cache:	None
Other Cache:	None
Memory:	16 GB (8x2 GB PC2-5300F, 2 rank, CAS 5-5-5, with ECC)
Disk Subsystem:	Seagate ST973451SS (SAS, 73GB, 15000rpm)
Other Hardware:	None

Peak Pointers:	64-bit
Other Software:	None

Results Table

Benchmark	Copies	Base Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Peak Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	**3083**	**35.3**	3082	35.3	3084	35.3	8	**3083**	**35.3**	3082	35.3	3084	35.3
416.gamess	8	943	166	**943**	**166**	941	166	8	943	166	**943**	**166**	941	166
433.milc	8	2218	33.1	**2209**	**33.3**	2203	33.3	8	2218	33.1	**2209**	**33.3**	2203	33.3
434.zeusmp	8	1072	67.9	**1075**	**67.7**	1075	67.7	8	1072	67.9	**1075**	**67.7**	1075	67.7
435.gromacs	8	417	137	419	136	**418**	**137**	8	417	137	419	136	**418**	**137**
436.cactusADM	8	1353	70.7	**1345**	**71.1**	1344	71.2	8	1353	70.7	**1345**	**71.1**	1344	71.2
437.leslie3d	8	2732	27.5	**2729**	**27.6**	2721	27.6	8	2732	27.5	**2729**	**27.6**	2721	27.6
444.namd	8	**541**	**119**	541	119	541	119	8	**541**	**119**	541	119	541	119
447.dealII	8	714	128	**714**	**128**	740	124	8	714	128	**714**	**128**	740	124
450.soplex	8	**1769**	**37.7**	1773	37.6	1768	37.7	8	**1769**	**37.7**	1773	37.6	1768	37.7
453.povray	8	**228**	**187**	228	187	227	188	8	**228**	**187**	228	187	227	188
454.calculix	8	593	111	**593**	**111**	593	111	8	593	111	**593**	**111**	593	111
459.GemsFDTD	8	**2932**	**29.0**	2933	28.9	2930	29.0	8	**2932**	**29.0**	2933	28.9	2930	29.0
465.tonto	8	700	112	702	112	**701**	**112**	8	700	112	702	112	**701**	**112**
470.lbm	8	4117	26.7	**4115**	**26.7**	4113	26.7	8	4117	26.7	**4115**	**26.7**	4113	26.7
481.wrf	8	**1764**	**50.6**	1764	50.6	1756	50.9	8	**1764**	**50.6**	1764	50.6	1756	50.9
482.sphinx3	8	2274	68.6	**2275**	**68.5**	2292	68.0	8	2274	68.6	**2275**	**68.5**	2292	68.0

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

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

General Notes

This result has been produced with binaries provided and compiled by Intel.

BIOS configuration:
Hardware Prefetch = Disable, Adjacent Sector Prefetch = Disable

For information about Fujitsu Siemens Computers please see:
http://www.fujitsu-siemens.com

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CPU2006 license: 22	**Test date:**	Oct-2007
Test sponsor: Fujitsu Siemens Computers	**Hardware Availability:**	Dec-2007
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Base Compiler Invocation

C benchmarks:
    icc

C++ benchmarks:
    icpc

Fortran benchmarks:
    ifort

Benchmarks using both Fortran and C:
    icc ifort

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:
    -fast

C++ benchmarks:
    -fast

Fortran benchmarks:
    -fast

Benchmarks using both Fortran and C:
    -fast

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Peak Optimization Flags

C benchmarks:

> 433.milc: basepeak = yes

> 470.lbm: basepeak = yes

> 482.sphinx3: basepeak = yes

C++ benchmarks:

> 444.namd: basepeak = yes

> 447.dealII: basepeak = yes

> 450.soplex: basepeak = yes

> 453.povray: basepeak = yes

Fortran benchmarks:

> 410.bwaves: basepeak = yes

> 416.gamess: basepeak = yes

> 434.zeusmp: basepeak = yes

> 437.leslie3d: basepeak = yes

> 459.GemsFDTD: basepeak = yes

> 465.tonto: basepeak = yes

Benchmarks using both Fortran and C:

> 435.gromacs: basepeak = yes

> 436.cactusADM: basepeak = yes

> 454.calculix: basepeak = yes

> 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-ic10.1-FP-intel64-linux-flags.20090714.05.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic10.1-FP-intel64-linux-flags.20090714.05.xml

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

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