SPEC® CFP2006 Result

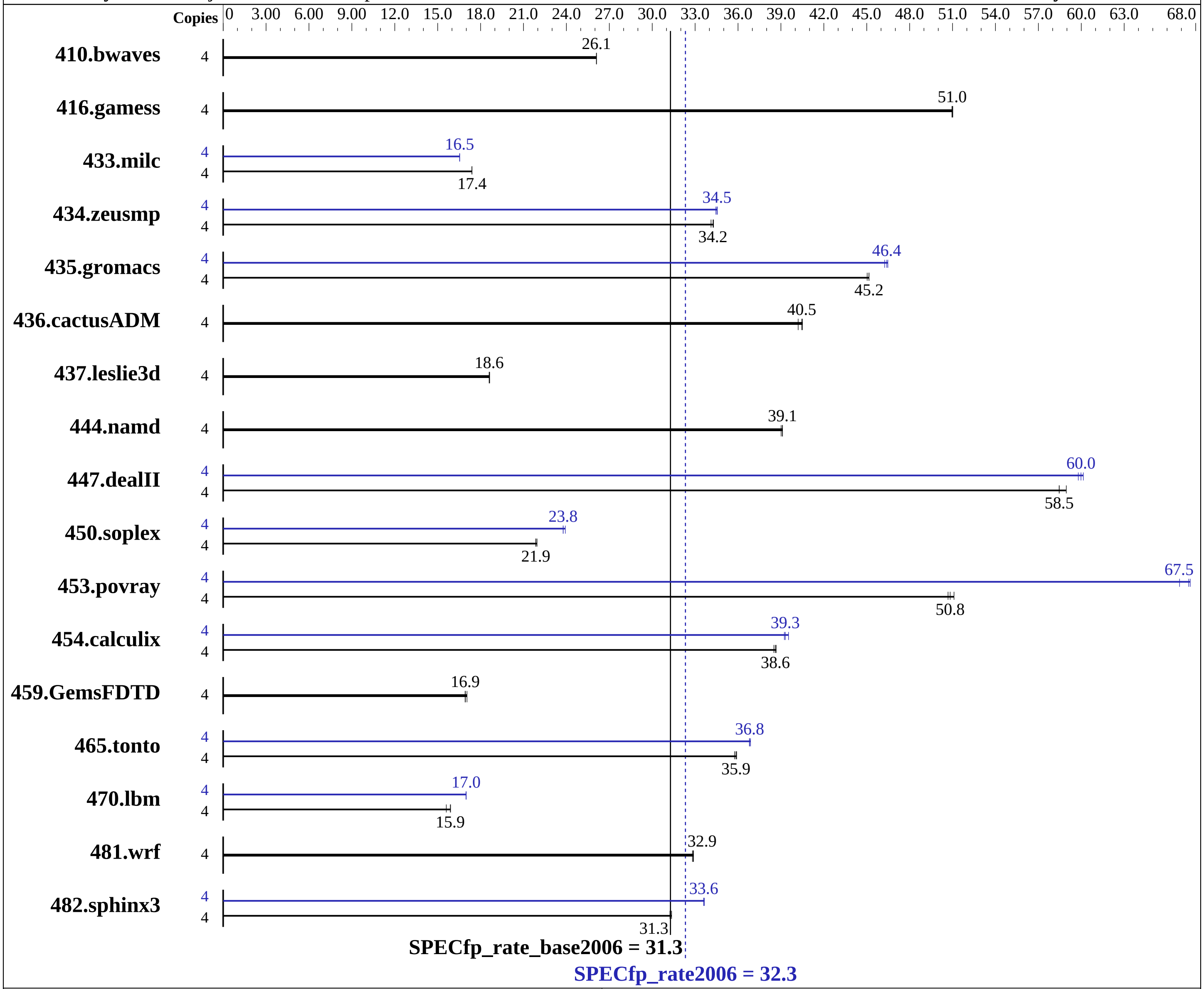
Fujitsu Siemens Computers

PRIMERGY TX300 S3, Intel Xeon processor 5120, 1.86 GHz

SPECfp®_rate2006 = 32.3

SPECfp_rate_base2006 = 31.3

CPU2006 license: 22		**Test date:**	May-2007
Test sponsor:	Fujitsu Siemens Computers	**Hardware Availability:**	Jul-2006
Tested by:	Fujitsu Siemens Computers	**Software Availability:**	Feb-2007



Hardware

CPU Name:	Intel Xeon 5120
CPU Characteristics:	1067 MHz system bus
CPU MHz:	1867
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	4 MB I+D on chip per chip

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Software

Operating System:	64-Bit SUSE LINUX Enterprise Server 10, Kernel 2.6.16.21-0.8-smp on an x86_64
Compiler:	Intel C++ Compiler for IA32/EM64T application, Version 9.1 - Build 20070215, Package-ID: l_cc_p_9.1.047 Intel Fortran Compiler for IA32/EM64T application, Version 9.1 - Build 20070215, Package ID: l_fc_p_9.1.043
Auto Parallel:	No
File System:	ext2

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L3 Cache:	None
Other Cache:	None
Memory:	8 GB (8x1 GB DDR2 PC2-5300F, 2 rank, CAS 5-5-5, with ECC)
Disk Subsystem:	SAS (73GB 15400 rpm)
Other Hardware:	None
System State:	Multiuser, Runlevel 3
Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	None

Results Table

	Base							Peak						
Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	**2083**	**26.1**	2083	26.1	2083	26.1	4	**2083**	**26.1**	2083	26.1	2083	26.1
416.gamess	4	1535	51.0	**1536**	**51.0**	1537	51.0	4	1535	51.0	**1536**	**51.0**	1537	51.0
433.milc	4	**2110**	**17.4**	2110	17.4	2111	17.4	4	2221	16.5	**2221**	**16.5**	2221	16.5
434.zeusmp	4	1067	34.1	**1063**	**34.2**	1062	34.3	4	1057	34.4	**1054**	**34.5**	1054	34.5
435.gromacs	4	632	45.2	**632**	**45.2**	634	45.0	4	617	46.3	**616**	**46.4**	615	46.5
436.cactusADM	4	1180	40.5	**1182**	**40.5**	1189	40.2	4	1180	40.5	**1182**	**40.5**	1189	40.2
437.leslie3d	4	2022	18.6	**2021**	**18.6**	2018	18.6	4	2022	18.6	**2021**	**18.6**	2018	18.6
444.namd	4	**820**	**39.1**	820	39.1	822	39.0	4	**820**	**39.1**	820	39.1	822	39.0
447.dealII	4	**783**	**58.5**	783	58.5	776	59.0	4	**763**	**60.0**	761	60.1	765	59.8
450.soplex	4	1520	21.9	1526	21.9	**1526**	**21.9**	4	**1403**	**23.8**	1403	23.8	1394	23.9
453.povray	4	**419**	**50.8**	416	51.1	420	50.7	4	315	67.6	318	66.9	**315**	**67.5**
454.calculix	4	853	38.7	857	38.5	**855**	**38.6**	4	835	39.5	**840**	**39.3**	841	39.2
459.GemsFDTD	4	2489	17.0	**2507**	**16.9**	2508	16.9	4	2489	17.0	**2507**	**16.9**	2508	16.9
465.tonto	4	1101	35.8	**1098**	**35.9**	1096	35.9	4	1067	36.9	1070	36.8	**1069**	**36.8**
470.lbm	4	3456	15.9	3523	15.6	**3460**	**15.9**	4	3236	17.0	**3235**	**17.0**	3234	17.0
481.wrf	4	1359	32.9	1362	32.8	**1359**	**32.9**	4	1359	32.9	1362	32.8	**1359**	**32.9**
482.sphinx3	4	**2491**	**31.3**	2496	31.2	2486	31.4	4	**2320**	**33.6**	2317	33.6	2320	33.6

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
'/usr/bin/taskset' used to bind processes to CPUs
```

General Notes

```
The system bus runs at 1067 MHz

All binaries were built with 64-bit Intel compiler except:
433.milc, 434.zeusmp, 450.soplex, 470.lbm and 482.sphinx3 in peak were built with
32-bit Intel compiler by changing the path for include and library files.

This result was measured on the PRIMERGY RX300 S3. The PRIMERGY RX300 S3 and
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General Notes (Continued)

```
the PRIMERGY TX300 S3 are electronically equivalent.

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

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`

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Base Optimization Flags (Continued)

Fortran benchmarks:
`-fast`

Benchmarks using both Fortran and C:
`-fast`

Peak Compiler Invocation

C benchmarks:
`/opt/intel/cc/9.1.047/bin/icc -I/opt/intel/cc/9.1.047/include -L/opt/intel/cc/9.1.047/lib`

C++ benchmarks (except as noted below):
`icpc`

450.soplex: `/opt/intel/cc/9.1.047/bin/icpc -I/opt/intel/cc/9.1.047/include -L/opt/intel/cc/9.1.047/lib`

Fortran benchmarks (except as noted below):
`ifort`

434.zeusmp: `/opt/intel/fc/9.1.043/bin/ifort -I/opt/intel/fc/9.1.043/include -L/opt/intel/fc/9.1.043/lib`

Benchmarks using both Fortran and C:
`icc ifort`

Peak Portability Flags

410.bwaves: `-DSPEC_CPU_LP64`
416.gamess: `-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`
453.povray: `-DSPEC_CPU_LP64`
454.calculix: `-DSPEC_CPU_LP64 -nofor_main`
459.GemsFDTD: `-DSPEC_CPU_LP64`
465.tonto: `-DSPEC_CPU_LP64`
481.wrf: `-DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX`

Peak Optimization Flags

C benchmarks:

433.milc: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast`

470.lbm: `Same as 433.milc`

482.sphinx3: `-fast`

C++ benchmarks:

444.namd: `basepeak = yes`

447.dealII: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast`

450.soplex: `Same as 447.dealII`

453.povray: `Same as 447.dealII`

Fortran benchmarks:

410.bwaves: `basepeak = yes`

416.gamess: `basepeak = yes`

434.zeusmp: `-fast`

437.leslie3d: `basepeak = yes`

459.GemsFDTD: `basepeak = yes`

465.tonto: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast`

Benchmarks using both Fortran and C:

435.gromacs: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast`

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.20090714.09.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.09.xml`

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

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