



SPEC® CFP2006 Result

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Fujitsu Siemens Computers

PRIMERGY BX620 S3, Intel Xeon processor 5160, 3.0 GHz

SPECfp®_rate2006 = 45.5

SPECfp_rate_base2006 = 43.9

CPU2006 license: 22

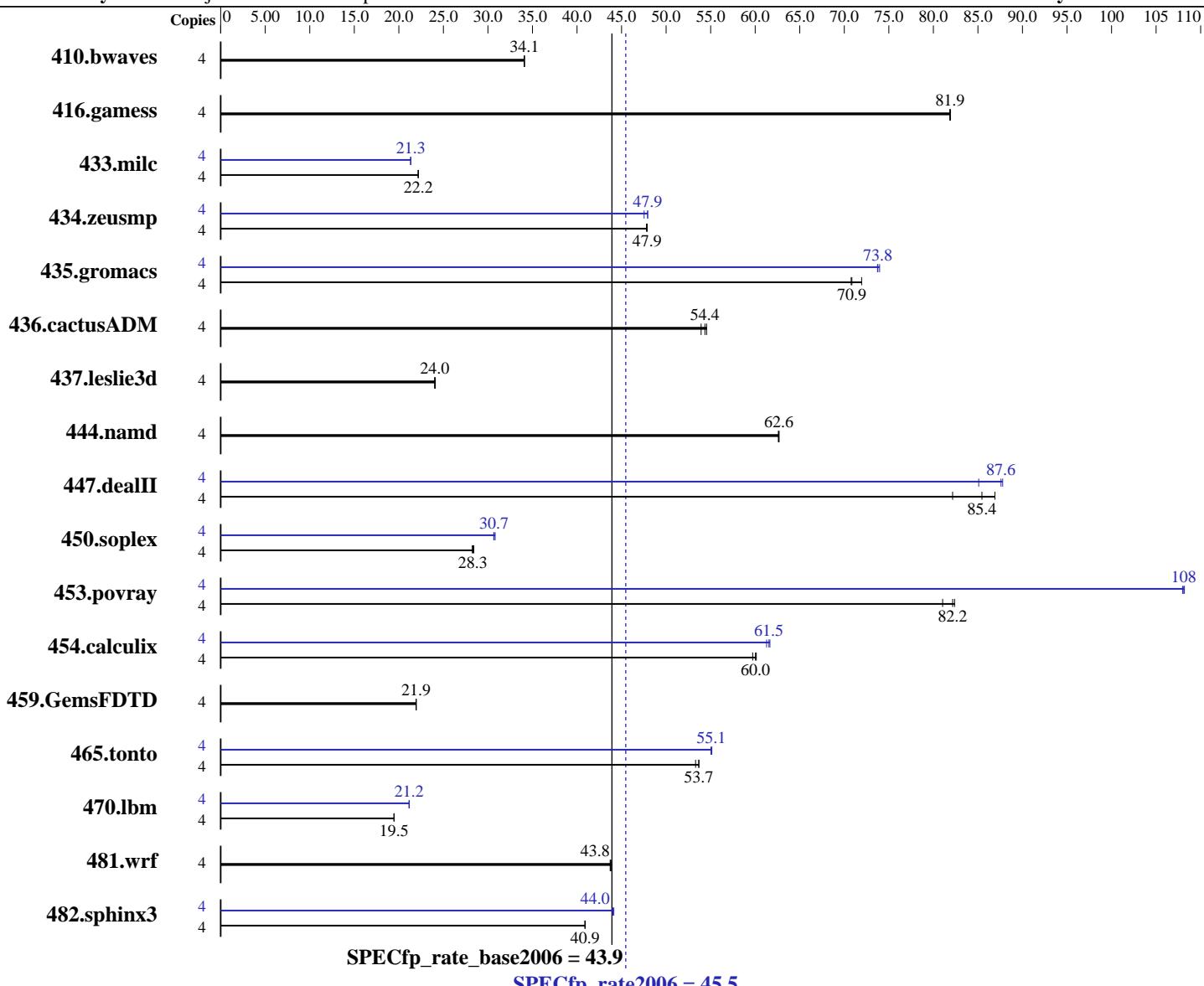
Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Mar-2007

Hardware Availability: Jul-2006

Software Availability: Feb-2007



Hardware

CPU Name: Intel Xeon 5160
CPU Characteristics: 5160
CPU MHz: 3000
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

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 (36GB 10000 rpm)
Other Hardware:	None

System State:	Multiuser, Runlevel 3
Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	None

Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	1595	34.1	1595	34.1	1595	34.1	4	1595	34.1	1595	34.1	1595	34.1	1595	34.1
416.gamess	4	957	81.8	956	81.9	956	81.9	4	957	81.8	956	81.9	956	81.9	956	81.9
433.milc	4	1657	22.2	1655	22.2	1655	22.2	4	1722	21.3	1721	21.3	1720	21.3	1720	21.3
434.zeusmp	4	760	47.9	761	47.9	762	47.8	4	760	47.9	759	47.9	766	47.5	766	47.5
435.gromacs	4	403	70.9	404	70.8	397	71.9	4	386	74.0	387	73.7	387	73.8	387	73.8
436.cactusADM	4	879	54.4	886	53.9	876	54.5	4	879	54.4	886	53.9	876	54.5	876	54.5
437.leslie3d	4	1560	24.1	1564	24.0	1565	24.0	4	1560	24.1	1564	24.0	1565	24.0	1565	24.0
444.namd	4	512	62.6	512	62.6	512	62.7	4	512	62.6	512	62.6	512	62.7	512	62.7
447.dealII	4	527	86.9	557	82.2	536	85.4	4	521	87.8	522	87.6	538	85.1	538	85.1
450.soplex	4	1181	28.2	1174	28.4	1178	28.3	4	1083	30.8	1087	30.7	1088	30.7	1088	30.7
453.povray	4	259	82.2	263	81.0	258	82.4	4	197	108	197	108	197	108	197	108
454.calculix	4	550	60.0	549	60.1	553	59.7	4	535	61.7	536	61.5	539	61.3	539	61.3
459.GemsFDTD	4	1934	21.9	1934	21.9	1935	21.9	4	1934	21.9	1934	21.9	1935	21.9	1935	21.9
465.tonto	4	734	53.7	738	53.3	733	53.7	4	714	55.1	715	55.0	714	55.1	714	55.1
470.lbm	4	2823	19.5	2825	19.5	2824	19.5	4	2595	21.2	2600	21.1	2597	21.2	2597	21.2
481.wrf	4	1021	43.8	1020	43.8	1022	43.7	4	1021	43.8	1020	43.8	1022	43.7	1022	43.7
482.sphinx3	4	1907	40.9	1905	40.9	1905	40.9	4	1773	44.0	1771	44.0	1767	44.1	1767	44.1

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 1333 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.

For information about Fujitsu Siemens Computers in your country please see:

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General Notes (Continued)

<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

Fortran benchmarks:

-fast

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Base Optimization Flags (Continued)

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:

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Peak Optimization Flags (Continued)

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



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For other inquiries, please contact webmaster@spec.org.

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