



# SPEC<sup>®</sup> CFP2006 Result

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## Fujitsu Siemens Computers

### SPECfp<sup>®</sup>\_rate2006 = 42.5

### CELSIUS R640, Intel Xeon 5160 processor

### SPECfp\_rate\_base2006 = 41.4

CPU2006 license: 22

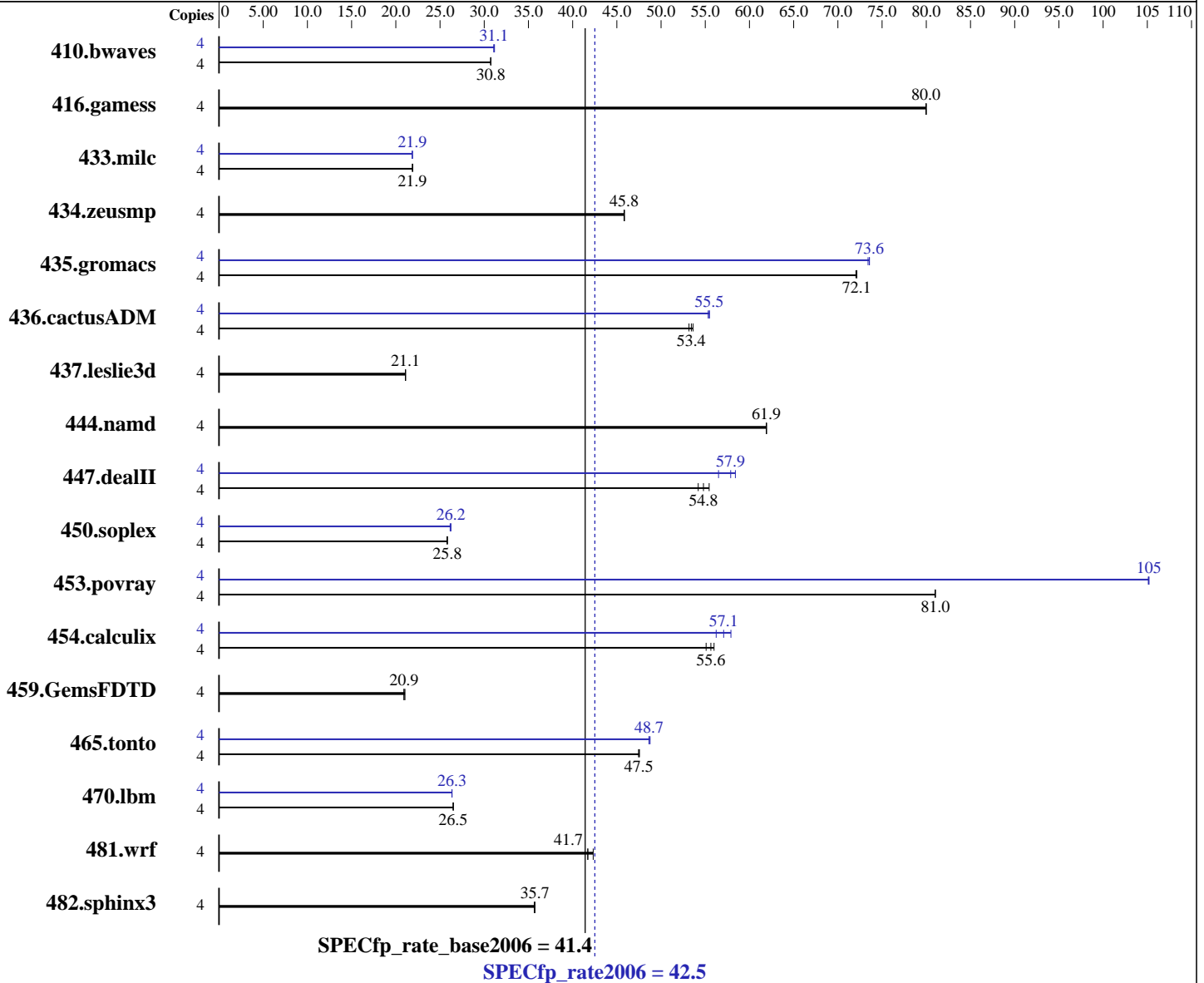
Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Nov-2006

Hardware Availability: Sep-2006

Software Availability: Nov-2006



#### Hardware

CPU Name: Intel Xeon 5160  
 CPU Characteristics: Dual Core, 3.0 GHz  
 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

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#### Software

Operating System: Windows XP Professional x64 Edition  
 Compiler: Intel C++ Compiler for EM64T version 9.1  
 - Build 20061104, Package-ID W\_CC\_C\_9.1.033  
 Intel Fortran Compiler for EM64T version 9.1  
 - Build 20061104, Package-ID W\_FC\_C\_9.1.033  
 Microsoft Visual Studio 2005 (libr. & linker)  
 Auto Parallel: No  
 File System: NTFS  
 System State: Default

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### Hardware (Continued)

L3 Cache: None  
 Other Cache: None  
 Memory: 8 GB (8x1 GB DDR2 5300F, 2 rank, CL5-5-5, ECC)  
 Disk Subsystem: SATA II 7200 rpm  
 Other Hardware: None

### Software (Continued)

Base Pointers: 64-bit  
 Peak Pointers: 64-bit  
 Other Software: Smart Heap Library, Version 8

## Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio		
410.bwaves	4	1767	30.8	<u>1767</u>	<u>30.8</u>	1770	30.7	4	1744	31.2	1748	31.1	<u>1748</u>	<u>31.1</u>		
416.gamess	4	<u>979</u>	<u>80.0</u>	980	80.0	979	80.0	4	<u>979</u>	<u>80.0</u>	980	80.0	979	80.0		
433.milc	4	1678	21.9	<u>1678</u>	<u>21.9</u>	1677	21.9	4	1679	21.9	<u>1679</u>	<u>21.9</u>	1681	21.8		
434.zeusmp	4	794	45.8	<u>794</u>	<u>45.8</u>	794	45.9	4	794	45.8	<u>794</u>	<u>45.8</u>	794	45.9		
435.gromacs	4	396	72.1	<u>396</u>	<u>72.1</u>	396	72.0	4	389	73.4	388	73.6	<u>388</u>	<u>73.6</u>		
436.cactusADM	4	892	53.6	<u>895</u>	<u>53.4</u>	899	53.2	4	<u>862</u>	<u>55.5</u>	864	55.3	862	55.5		
437.leslie3d	4	1782	21.1	<u>1783</u>	<u>21.1</u>	1783	21.1	4	1782	21.1	<u>1783</u>	<u>21.1</u>	1783	21.1		
444.namd	4	<u>518</u>	<u>61.9</u>	518	61.9	518	61.9	4	<u>518</u>	<u>61.9</u>	518	61.9	518	61.9		
447.dealII	4	844	54.2	<u>835</u>	<u>54.8</u>	825	55.4	4	<u>791</u>	<u>57.9</u>	783	58.4	810	56.5		
450.soplex	4	1294	25.8	<u>1292</u>	<u>25.8</u>	1291	25.8	4	1276	26.1	1272	26.2	<u>1272</u>	<u>26.2</u>		
453.povray	4	263	81.0	<u>263</u>	<u>81.0</u>	263	81.0	4	202	105	202	105	<u>202</u>	<u>105</u>		
454.calculix	4	589	56.0	599	55.1	<u>593</u>	<u>55.6</u>	4	570	57.9	<u>578</u>	<u>57.1</u>	587	56.2		
459.GemsFDTD	4	2018	21.0	<u>2028</u>	<u>20.9</u>	2028	20.9	4	2018	21.0	<u>2028</u>	<u>20.9</u>	2028	20.9		
465.tonto	4	828	47.6	829	47.5	<u>829</u>	<u>47.5</u>	4	807	48.8	809	48.6	<u>809</u>	<u>48.7</u>		
470.lbm	4	2074	26.5	<u>2074</u>	<u>26.5</u>	2075	26.5	4	2085	26.4	2086	26.3	<u>2086</u>	<u>26.3</u>		
481.wrf	4	<u>1071</u>	<u>41.7</u>	1071	41.7	1056	42.3	4	<u>1071</u>	<u>41.7</u>	1071	41.7	1056	42.3		
482.sphinx3	4	2186	35.7	2182	35.7	<u>2182</u>	<u>35.7</u>	4	2186	35.7	2182	35.7	<u>2182</u>	<u>35.7</u>		

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

## General Notes

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

## Compiler Invocation

C benchmarks:  
icl -Qvc8 -Qc99

C++ benchmarks:  
icl -Qvc8

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## Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc8 -Qc99 ifort

## 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 -F950000000 shlw32M.lib

C++ benchmarks:

-fast -Qcxx-features -F950000000 shlw32M.lib

Fortran benchmarks:

-fast -F950000000 shlw32M.lib

Benchmarks using both Fortran and C:

-fast -F950000000 shlw32M.lib



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## Peak Optimization Flags

### C benchmarks:

433.milc: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -F950000000  
shlW32M.lib

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 shlW32M.lib

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 -F950000000  
shlW32M.lib

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

437.lelie3d: 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  
shlW32M.lib

436.cactusADM: Same as 435.gromacs

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.20090715.12.html](http://www.spec.org/cpu2006/flags/CPU2006_flags.20090715.12.html)



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You can also download the XML flags source by saving the following link:

[http://www.spec.org/cpu2006/flags/CPU2006\\_flags.20090715.12.xml](http://www.spec.org/cpu2006/flags/CPU2006_flags.20090715.12.xml)

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For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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