



# SPEC<sup>®</sup> CFP2006 Result

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## Fujitsu Siemens Computers

### SPECfp<sup>®</sup>2006 = 20.3

### CELSIUS M460, Intel Core 2 Duo E6850 processor

### SPECfp\_base2006 = 19.3

CPU2006 license: 22

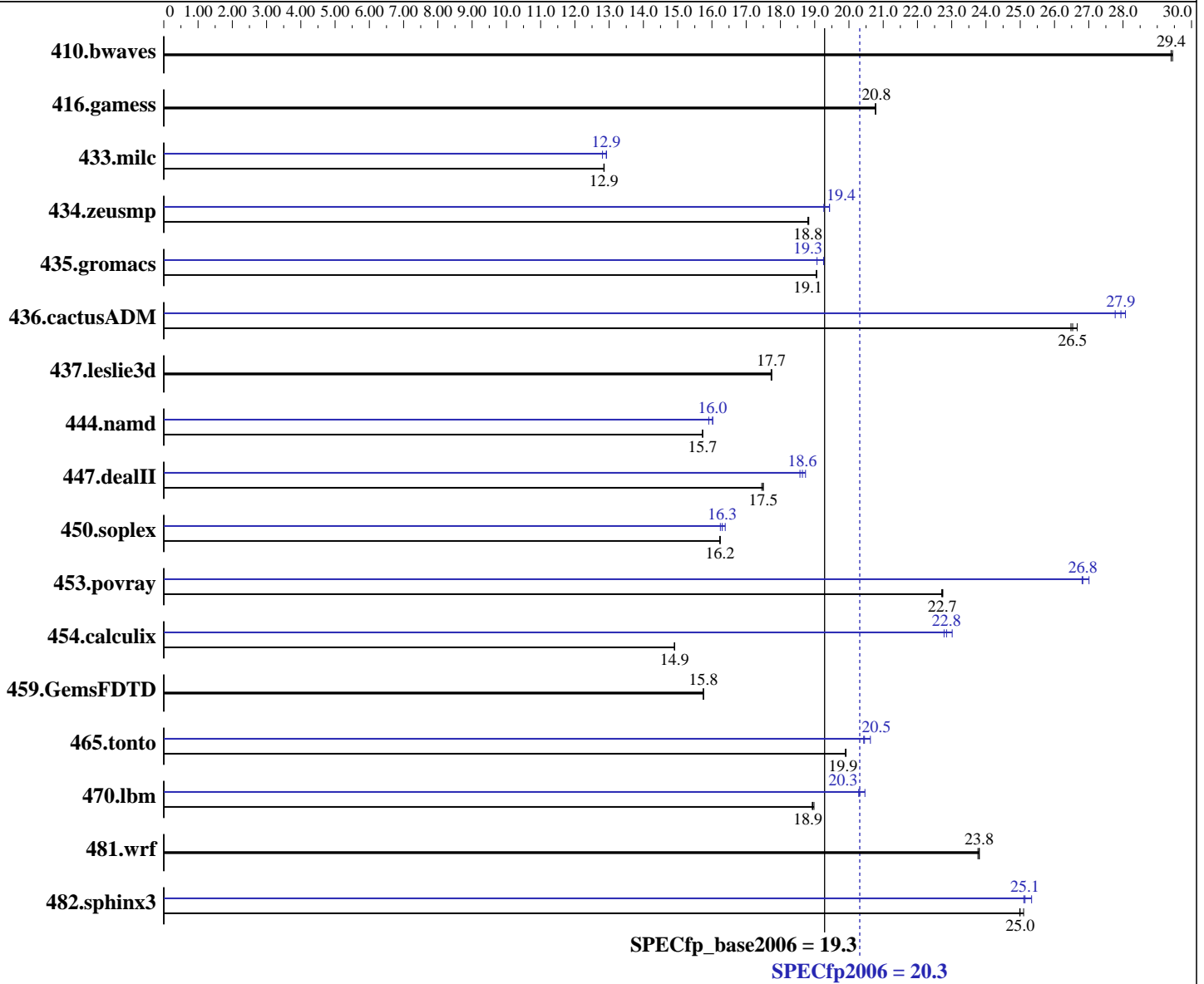
Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Dec-2007

Hardware Availability: Nov-2007

Software Availability: Nov-2007



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#### Hardware

CPU Name: Intel Core 2 Duo E6850  
 CPU Characteristics:  
 CPU MHz: 3000  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip  
 CPU(s) orderable: 1 chip  
 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: Microsoft Windows Vista Ultimate (x64)  
 Compiler: Intel C++ and Fortran Compilers for Intel64, Version 10.1, Build 20070913  
 Microsoft Visual Studio 2005 with SP1 (for libraries)  
 Auto Parallel: Yes  
 File System: NTFS

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### Hardware (Continued)

L3 Cache: None  
 Other Cache: None  
 Memory: 4 GB (4x1 GB PC2-6400 CL6 SDRAM)  
 Disk Subsystem: 1 x 400 GB SATA II 7200 RPM  
 Other Hardware: None

### Software (Continued)

System State: Default  
 Base Pointers: 64-bit  
 Peak Pointers: 64-bit  
 Other Software: MicroQuill SmartHeap Library, Version 8.0 (64 bit)

## Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	461	29.4	<b>462</b>	<b>29.4</b>	462	29.4	461	29.4	<b>462</b>	<b>29.4</b>	462	29.4
416.gamess	942	20.8	<b>942</b>	<b>20.8</b>	943	20.8	942	20.8	<b>942</b>	<b>20.8</b>	943	20.8
433.milc	714	12.9	<b>714</b>	<b>12.9</b>	715	12.8	<b>711</b>	<b>12.9</b>	710	12.9	717	12.8
434.zeusmp	483	18.8	<b>484</b>	<b>18.8</b>	484	18.8	<b>468</b>	<b>19.4</b>	468	19.4	472	19.3
435.gromacs	375	19.0	<b>375</b>	<b>19.1</b>	375	19.1	371	19.3	<b>371</b>	<b>19.3</b>	374	19.1
436.cactusADM	448	26.7	451	26.5	<b>450</b>	<b>26.5</b>	426	28.1	<b>428</b>	<b>27.9</b>	430	27.8
437.leslie3d	530	17.7	530	17.7	<b>530</b>	<b>17.7</b>	530	17.7	530	17.7	<b>530</b>	<b>17.7</b>
444.namd	510	15.7	510	15.7	<b>510</b>	<b>15.7</b>	<b>501</b>	<b>16.0</b>	501	16.0	504	15.9
447.dealII	655	17.5	<b>654</b>	<b>17.5</b>	654	17.5	611	18.7	<b>614</b>	<b>18.6</b>	616	18.6
450.soplex	513	16.2	514	16.2	<b>514</b>	<b>16.2</b>	509	16.4	<b>512</b>	<b>16.3</b>	513	16.2
453.povray	234	22.7	<b>234</b>	<b>22.7</b>	234	22.7	197	27.0	<b>198</b>	<b>26.8</b>	198	26.8
454.calculix	553	14.9	553	14.9	<b>553</b>	<b>14.9</b>	358	23.0	<b>361</b>	<b>22.8</b>	362	22.8
459.GemsFDTD	673	15.8	<b>674</b>	<b>15.8</b>	674	15.7	673	15.8	<b>674</b>	<b>15.8</b>	674	15.7
465.tonto	494	19.9	<b>494</b>	<b>19.9</b>	495	19.9	477	20.6	<b>481</b>	<b>20.5</b>	482	20.4
470.lbm	726	18.9	724	19.0	<b>725</b>	<b>18.9</b>	671	20.5	<b>676</b>	<b>20.3</b>	677	20.3
481.wrf	470	23.8	469	23.8	<b>469</b>	<b>23.8</b>	470	23.8	469	23.8	<b>469</b>	<b>23.8</b>
482.sphinx3	780	25.0	<b>780</b>	<b>25.0</b>	777	25.1	769	25.3	<b>775</b>	<b>25.1</b>	776	25.1

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

## Operating System Notes

OMP\_NUM\_THREADS set to number of cores (default).

## Platform Notes

BIOS default settings have been used.

## General Notes

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



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## Compiler Invocation

C benchmarks:  
icl -Qvc8 -Qc99

C++ benchmarks:  
icl -Qvc8

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: -DSPEC\_CPU\_P64  
434.zeusmp: -DSPEC\_CPU\_P64  
435.gromacs: -DSPEC\_CPU\_P64  
436.cactusADM: -DSPEC\_CPU\_P64 -Qlowercase /assume:underscore  
437.leslie3d: -DSPEC\_CPU\_P64  
444.namd: -DSPEC\_CPU\_P64 /TP  
447.dealII: -DSPEC\_CPU\_P64 -DDEAL\_II\_MEMBER\_VAR\_SPECIALIZATION\_BUG  
450.soplex: -DSPEC\_CPU\_P64  
453.povray: -DSPEC\_CPU\_P64 -DSPEC\_CPU\_WINDOWS\_ICL  
454.calculix: -DSPEC\_CPU\_P64 -DSPEC\_CPU\_NOZMODIFIER -Qlowercase  
459.GemsFDTD: -DSPEC\_CPU\_P64  
465.tonto: -DSPEC\_CPU\_P64  
470.lbm: -DSPEC\_CPU\_P64  
481.wrf: -DSPEC\_CPU\_P64 -DSPEC\_CPU\_WINDOWS\_ICL  
482.sphinx3: -DSPEC\_CPU\_P64

## Base Optimization Flags

C benchmarks:  
-fast -Qparallel -F1000000000 libguide40.lib

C++ benchmarks:  
-fast -Qparallel -Qcxx-features -F1000000000 libguide40.lib  
shlw64M.lib -link -FORCE:MULTIPLE

Fortran benchmarks:  
-fast -Qparallel -F1000000000 libguide40.lib

Benchmarks using both Fortran and C:  
-fast -Qparallel -F1000000000 libguide40.lib



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## Peak Optimization Flags

### C benchmarks:

433.milc: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -F1000000000 libguide40.lib

470.lbm: -fast -Qunroll2 -Qscalar-rep- -Qprefetch -F1000000000 libguide40.lib

482.sphinx3: -fast -Qunroll2 -F1000000000 libguide40.lib

### C++ benchmarks:

444.namd: -fast -Qcxx-features -Oa -F1000000000 libguide40.lib shlw64M.lib -link -FORCE:MULTIPLE

447.dealII: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -Qcxx-features -F1000000000 libguide40.lib shlw64M.lib -link -FORCE:MULTIPLE

450.soplex: Same as 447.dealII

453.povray: Same as 447.dealII

### Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: basepeak = yes

434.zeusmp: -O2 -Qunroll10 -QxT -Qscalar-rep- -Qprec-div- -F1000000000 libguide40.lib

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: -fast -Qunroll14 -Qauto -F1000000000 libguide40.lib

### Benchmarks using both Fortran and C:

435.gromacs: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -F1000000000 libguide40.lib

436.cactusADM: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -Qparallel -Qprefetch -Qunroll2 -F1000000000 libguide40.lib

454.calculix: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -Qunroll-aggressive -F1000000000 libguide40.lib

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## Peak Optimization Flags (Continued)

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.20090714.02.html](http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.02.html)

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

[http://www.spec.org/cpu2006/flags/CPU2006\\_flags.20090714.02.xml](http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.02.xml)

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For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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