



# SPEC® CFP2006 Result

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## Fujitsu Siemens Computers

**SPECfp®2006 = 19.1**

CELSIUS M460, Intel Core 2 Quad Q6700 processor

**SPECfp\_base2006 = 17.8**

CPU2006 license: 22

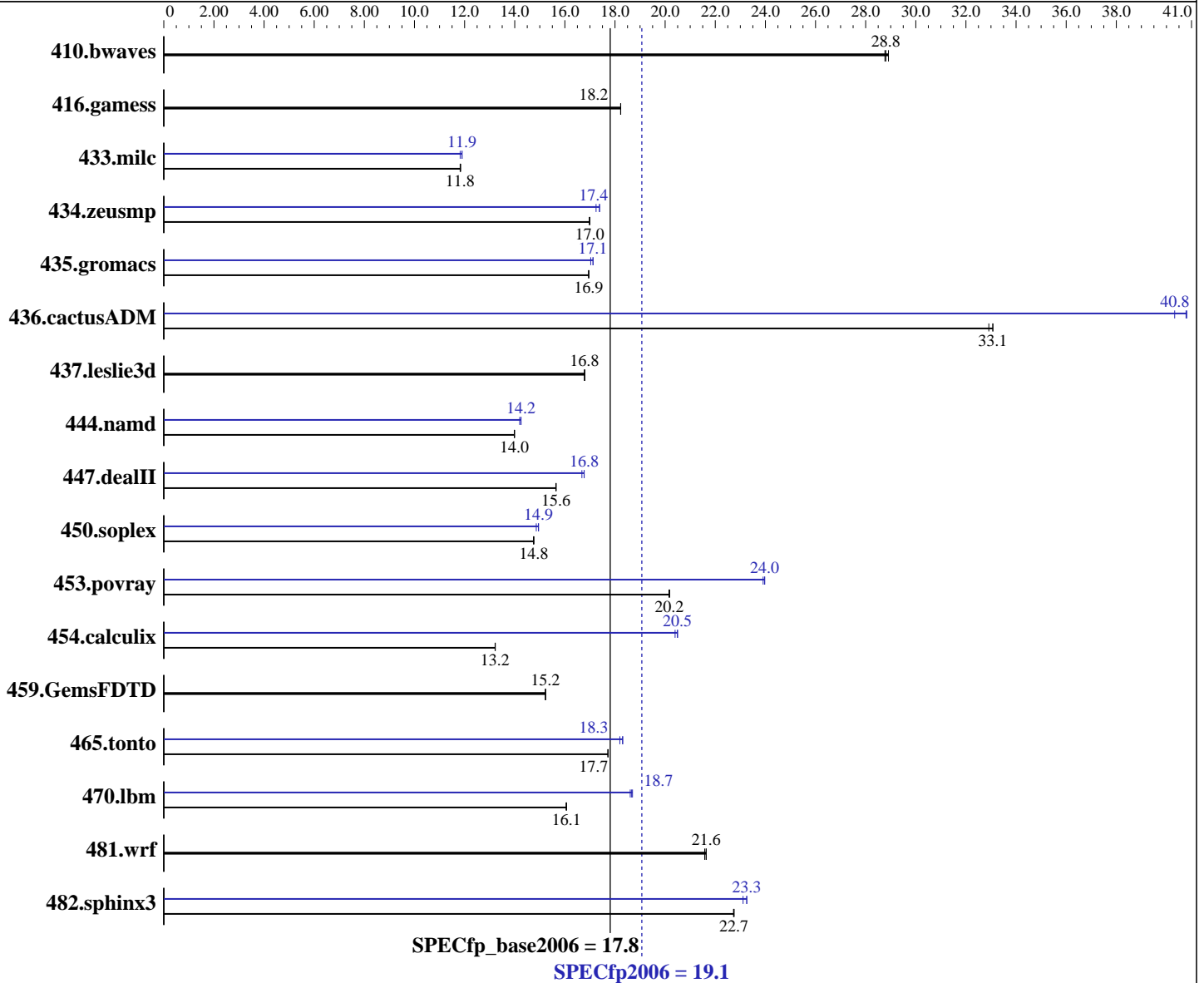
Test date: Dec-2007

Test sponsor: Fujitsu Siemens Computers

Hardware Availability: Nov-2007

Tested by: Fujitsu Siemens Computers

Software Availability: Nov-2007



### Hardware

CPU Name: Intel Core 2 Quad Q6700  
 CPU Characteristics:  
 CPU MHz: 2667  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip  
 CPU(s) orderable: 1 chip  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 8 MB I+D on chip per chip, 4 MB shared / 2 cores

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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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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

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	470	28.9	472	28.8	<b><u>472</u></b>	<b><u>28.8</u></b>	470	28.9	472	28.8	<b><u>472</u></b>	<b><u>28.8</u></b>
416.gamess	1074	18.2	<b><u>1074</u></b>	<b><u>18.2</u></b>	1074	18.2	1074	18.2	<b><u>1074</u></b>	<b><u>18.2</u></b>	1074	18.2
433.milc	775	11.8	<b><u>776</u></b>	<b><u>11.8</u></b>	776	11.8	<b><u>772</u></b>	<b><u>11.9</u></b>	772	11.9	776	11.8
434.zeusmp	536	17.0	<b><u>536</u></b>	<b><u>17.0</u></b>	536	17.0	<b><u>524</u></b>	<b><u>17.4</u></b>	523	17.4	528	17.2
435.gromacs	<b><u>421</u></b>	<b><u>16.9</u></b>	421	16.9	421	17.0	417	17.1	<b><u>417</u></b>	<b><u>17.1</u></b>	419	17.0
436.cactusADM	363	32.9	<b><u>361</u></b>	<b><u>33.1</u></b>	361	33.1	<b><u>293</u></b>	<b><u>40.8</u></b>	293	40.8	296	40.3
437.leslie3d	560	16.8	<b><u>560</u></b>	<b><u>16.8</u></b>	560	16.8	560	16.8	<b><u>560</u></b>	<b><u>16.8</u></b>	560	16.8
444.namd	<b><u>573</u></b>	<b><u>14.0</u></b>	573	14.0	573	14.0	563	14.3	<b><u>563</u></b>	<b><u>14.2</u></b>	565	14.2
447.dealII	731	15.6	<b><u>731</u></b>	<b><u>15.6</u></b>	731	15.7	<b><u>682</u></b>	<b><u>16.8</u></b>	682	16.8	686	16.7
450.soplex	<b><u>565</u></b>	<b><u>14.8</u></b>	566	14.7	565	14.8	558	15.0	<b><u>558</u></b>	<b><u>14.9</u></b>	561	14.9
453.povray	<b><u>264</u></b>	<b><u>20.2</u></b>	264	20.2	264	20.2	<b><u>222</u></b>	<b><u>24.0</u></b>	222	24.0	223	23.9
454.calculix	624	13.2	624	13.2	<b><u>624</u></b>	<b><u>13.2</u></b>	<b><u>403</u></b>	<b><u>20.5</u></b>	402	20.5	404	20.4
459.GemsFDTD	<b><u>697</u></b>	<b><u>15.2</u></b>	697	15.2	697	15.2	<b><u>697</u></b>	<b><u>15.2</u></b>	697	15.2	697	15.2
465.tonto	555	17.7	<b><u>555</u></b>	<b><u>17.7</u></b>	555	17.7	<b><u>538</u></b>	<b><u>18.3</u></b>	537	18.3	541	18.2
470.lbm	<b><u>855</u></b>	<b><u>16.1</u></b>	855	16.1	856	16.0	<b><u>736</u></b>	<b><u>18.7</u></b>	735	18.7	738	18.6
481.wrf	518	21.6	516	21.6	<b><u>516</u></b>	<b><u>21.6</u></b>	518	21.6	516	21.6	<b><u>516</u></b>	<b><u>21.6</u></b>
482.sphinx3	857	22.8	<b><u>857</u></b>	<b><u>22.7</u></b>	858	22.7	<b><u>838</u></b>	<b><u>23.3</u></b>	843	23.1	838	23.3

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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## Base Compiler Invocation

C benchmarks:  
icl -Qvc8 -Qc99

C++ benchmarks:  
icl -Qvc8

Fortran benchmarks:  
ifort

Benchmarks using both Fortran and C:  
icl -Qvc8 -Qc99 ifort

## Base 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.lelie3d: -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 Compiler Invocation

C benchmarks:

icl -Qvc8 -Qc99

C++ benchmarks:

icl -Qvc8

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc8 -Qc99 ifort

## Peak Portability Flags

Same as Base Portability Flags

## 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

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## Peak Optimization Flags (Continued)

416.gamess: basepeak = yes

434.zeusmp: -O2 -Qunroll0 -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

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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