



# SPEC<sup>®</sup> CFP2006 Result

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## Fujitsu Siemens Computers

**SPECfp<sup>®</sup>2006 = 17.7**

### CELSIUS R640, Intel Xeon 5160 processor

**SPECfp\_base2006 = 17.1**

CPU2006 license: 22

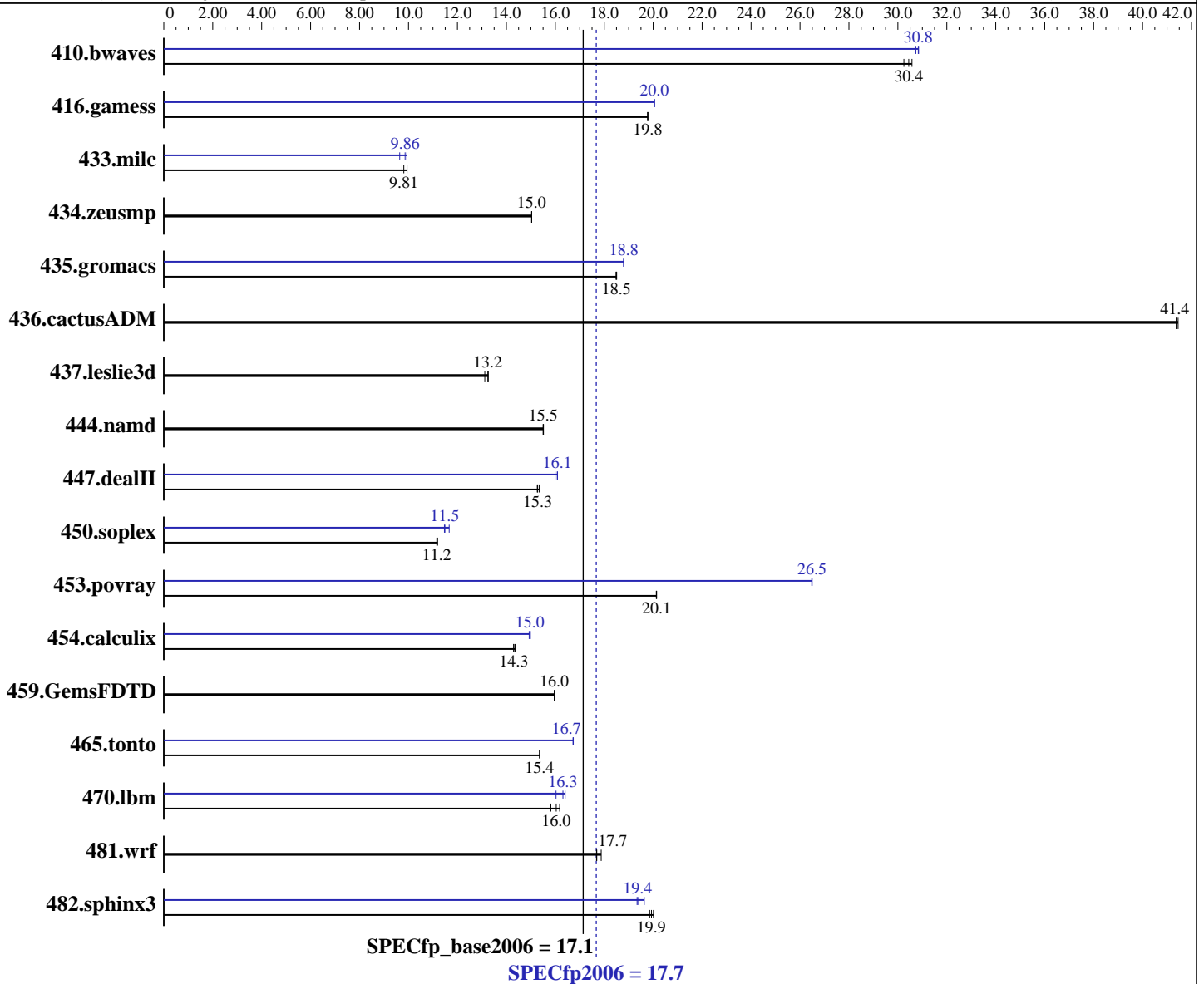
Test sponsor: Fujitsu Siemens Computers

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: Yes  
 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					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	449	30.2	<b>446</b>	<b>30.4</b>	444	30.6	442	30.7	<b>441</b>	<b>30.8</b>	441	30.8
416.gamess	<b>990</b>	<b>19.8</b>	990	19.8	990	19.8	<b>977</b>	<b>20.0</b>	976	20.1	977	20.0
433.milc	923	9.94	<b>936</b>	<b>9.81</b>	943	9.74	<b>931</b>	<b>9.86</b>	952	9.64	924	9.93
434.zeusmp	605	15.0	605	15.0	<b>605</b>	<b>15.0</b>	605	15.0	605	15.0	<b>605</b>	<b>15.0</b>
435.gromacs	<b>386</b>	<b>18.5</b>	386	18.5	386	18.5	380	18.8	<b>380</b>	<b>18.8</b>	380	18.8
436.cactusADM	289	41.4	<b>289</b>	<b>41.4</b>	288	41.5	289	41.4	<b>289</b>	<b>41.4</b>	288	41.5
437.leslie3d	<b>710</b>	<b>13.2</b>	709	13.3	717	13.1	<b>710</b>	<b>13.2</b>	709	13.3	717	13.1
444.namd	517	15.5	<b>517</b>	<b>15.5</b>	517	15.5	517	15.5	<b>517</b>	<b>15.5</b>	517	15.5
447.dealII	746	15.3	750	15.3	<b>749</b>	<b>15.3</b>	715	16.0	<b>711</b>	<b>16.1</b>	711	16.1
450.soplex	745	11.2	747	11.2	<b>747</b>	<b>11.2</b>	715	11.7	727	11.5	<b>726</b>	<b>11.5</b>
453.povray	264	20.1	264	20.1	<b>264</b>	<b>20.1</b>	201	26.5	<b>201</b>	<b>26.5</b>	201	26.5
454.calculix	<b>577</b>	<b>14.3</b>	577	14.3	575	14.4	551	15.0	553	14.9	<b>551</b>	<b>15.0</b>
459.GemsFDTD	665	16.0	<b>665</b>	<b>16.0</b>	664	16.0	665	16.0	<b>665</b>	<b>16.0</b>	664	16.0
465.tonto	<b>641</b>	<b>15.4</b>	641	15.4	640	15.4	588	16.7	<b>588</b>	<b>16.7</b>	588	16.7
470.lbm	<b>857</b>	<b>16.0</b>	869	15.8	849	16.2	838	16.4	<b>842</b>	<b>16.3</b>	857	16.0
481.wrf	<b>631</b>	<b>17.7</b>	625	17.9	632	17.7	<b>631</b>	<b>17.7</b>	625	17.9	632	17.7
482.sphinx3	<b>978</b>	<b>19.9</b>	982	19.9	974	20.0	993	19.6	<b>1006</b>	<b>19.4</b>	1008	19.3

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 -Qparallel -F950000000 shlw32M.lib

C++ benchmarks:

-fast -Qparallel -Qcxx-features -F950000000 shlw32M.lib

Fortran benchmarks:

-fast -Qparallel -F950000000 shlw32M.lib

Benchmarks using both Fortran and C:

-fast -Qparallel -F950000000 shlw32M.lib



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## Peak Optimization Flags

### C benchmarks:

-Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -F950000000 sh1W32M.lib

### C++ benchmarks:

444.namd: basepeak = yes

447.dealII: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -Qcxx-features  
-F950000000 sh1W32M.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 -Qparallel  
-F950000000 sh1W32M.lib

416.gamess: -fast -F950000000 sh1W32M.lib

434.zeusmp: basepeak = yes

437.leslie3d: 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  
sh1W32M.lib

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

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).

Tested with SPEC CPU2006 v1.0.  
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