



SPEC® CFP2006 Result

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Fujitsu Siemens Computers

SPECfp®2006 = 15.4

CELSIUS R540, Intel Xeon processor E5345

SPECfp_base2006 = 14.9

CPU2006 license: 22

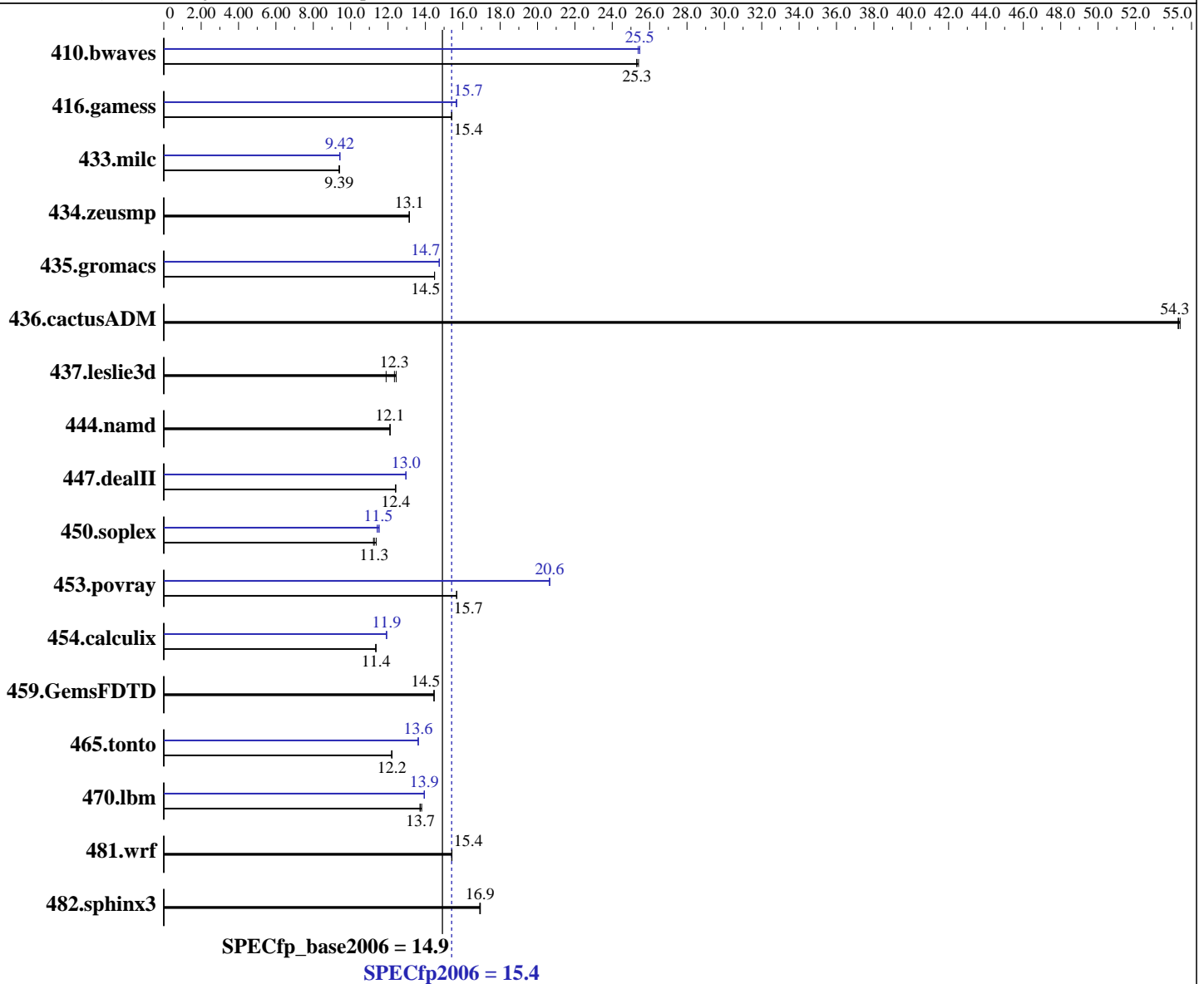
Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Mar-2007

Hardware Availability: Nov-2006

Software Availability: Nov-2006



Hardware

CPU Name: Intel Xeon E5345
 CPU Characteristics: E5345
 CPU MHz: 2333
 FPU: Integrated
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip
 CPU(s) orderable: 1,2 chips
 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: Windows XP, 64 bit Edition
 Compiler: Intel C++ Compiler for EM64T-based applications
 - version 9.1, Build 20061104
 Intel Fortran Compiler for EM64T-based applications
 - version 9.1, Build 20061104
 Microsoft Visual Studio 2005 (for libraries)
 Auto Parallel: Yes
 File System: NTFS

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Hardware (Continued)

L3 Cache: None
 Other Cache: None
 Memory: 8 GB (4x2 GB DDR2 5300F, 2 rank, CL5-5-5,with ECC)
 Disk Subsystem: SATA II 7200 rpm
 Other Hardware: None

Software (Continued)

System State: Default
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other Software: None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	<u>537</u>	<u>25.3</u>	535	25.4	537	25.3	<u>534</u>	<u>25.5</u>	534	25.5	535	25.4
416.gamess	1270	15.4	<u>1271</u>	<u>15.4</u>	1271	15.4	1250	15.7	<u>1250</u>	<u>15.7</u>	1250	15.7
433.milc	977	9.40	978	9.38	<u>977</u>	<u>9.39</u>	<u>974</u>	<u>9.42</u>	974	9.43	975	9.41
434.zeusmp	692	13.1	<u>693</u>	<u>13.1</u>	693	13.1	692	13.1	<u>693</u>	<u>13.1</u>	693	13.1
435.gromacs	493	14.5	493	14.5	<u>493</u>	<u>14.5</u>	484	14.7	<u>484</u>	<u>14.7</u>	484	14.8
436.cactusADM	220	54.4	220	54.3	<u>220</u>	<u>54.3</u>	220	54.4	220	54.3	<u>220</u>	<u>54.3</u>
437.leslie3d	790	11.9	<u>762</u>	<u>12.3</u>	756	12.4	790	11.9	<u>762</u>	<u>12.3</u>	756	12.4
444.namd	663	12.1	662	12.1	<u>662</u>	<u>12.1</u>	663	12.1	662	12.1	<u>662</u>	<u>12.1</u>
447.dealII	923	12.4	922	12.4	<u>922</u>	<u>12.4</u>	883	13.0	<u>883</u>	<u>13.0</u>	883	13.0
450.soplex	734	11.4	743	11.2	<u>740</u>	<u>11.3</u>	<u>726</u>	<u>11.5</u>	723	11.5	730	11.4
453.povray	339	15.7	339	15.7	<u>339</u>	<u>15.7</u>	258	20.6	258	20.6	<u>258</u>	<u>20.6</u>
454.calculix	726	11.4	<u>727</u>	<u>11.4</u>	728	11.3	692	11.9	<u>692</u>	<u>11.9</u>	692	11.9
459.GemsFDTD	734	14.5	<u>734</u>	<u>14.5</u>	733	14.5	734	14.5	<u>734</u>	<u>14.5</u>	733	14.5
465.tonto	807	12.2	806	12.2	<u>806</u>	<u>12.2</u>	<u>723</u>	<u>13.6</u>	723	13.6	722	13.6
470.lbm	996	13.8	<u>1000</u>	<u>13.7</u>	1002	13.7	<u>986</u>	<u>13.9</u>	985	13.9	986	13.9
481.wrf	725	15.4	<u>724</u>	<u>15.4</u>	724	15.4	725	15.4	<u>724</u>	<u>15.4</u>	724	15.4
482.sphinx3	1150	16.9	<u>1152</u>	<u>16.9</u>	1152	16.9	1150	16.9	<u>1152</u>	<u>16.9</u>	1152	16.9

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

Platform Notes

BIOS default settings have been used, except:

Snoop Filter Enabled

(The Snoop Filter is designed to reduce system bus utilization coming from cache misses. It can lead to significant memory performance improvements for several workstation applications on suitable memory configurations.)

Adjacent Cache Line Prefetch Enabled

(Prefetches a cache line pair of data instead of only the cache line that contains the requested data. This helps to improve data access time for some applications, especially for single processors.)



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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

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

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Base Optimization Flags (Continued)

C++ benchmarks:

-fast -Qparallel -Qcxx-features -F950000000

Fortran benchmarks:

-fast -Qparallel -F950000000

Benchmarks using both Fortran and C:

-fast -Qparallel -F950000000

Peak Optimization Flags

C benchmarks:

433.milc: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -F950000000

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

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

416.gamess: -fast -F950000000

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: Same as 410.bwaves

Benchmarks using both Fortran and C:

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Peak Optimization Flags (Continued)

435.gromacs: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -F950000000

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.20090714.20.html

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

http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.20.xml

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

Tested with SPEC CPU2006 v1.0.
Report generated on Tue Jul 14 17:56:50 2009 by SPEC CPU2006 PS/PDF formatter v6323.