



SPEC[®] CFP2006 Result

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Fujitsu Siemens Computers

SPECfp[®]_rate2006 = 54.1

CELSIUS R640, Intel Xeon E5345 processor

SPECfp_rate_base2006 = 52.8

CPU2006 license: 22

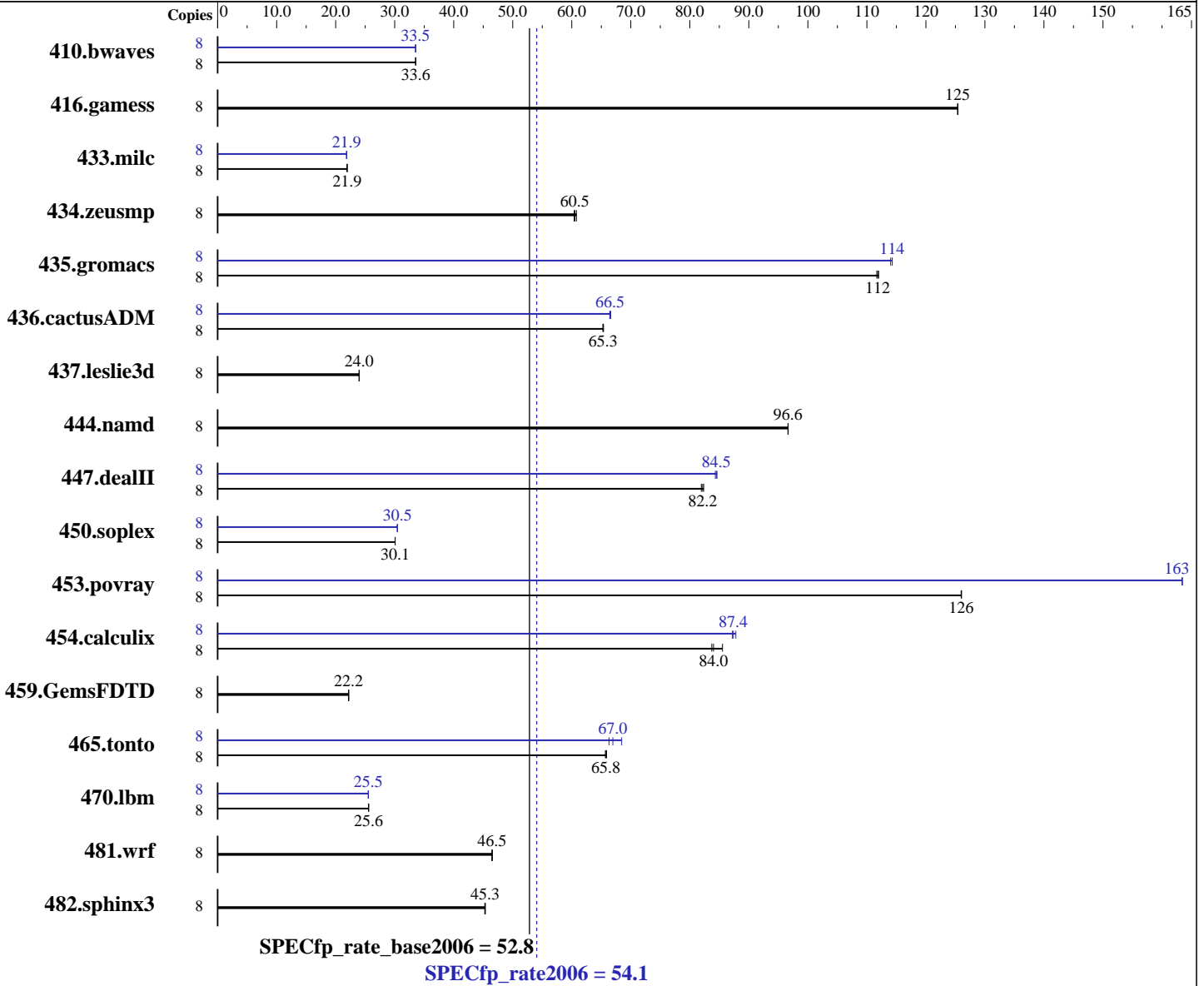
Test sponsor: Fujitsu Siemens Computers

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 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: 16 GB (8x2 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: None

Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio		
410.bwaves	8	3241	33.5	<u>3240</u>	<u>33.6</u>	3239	33.6	8	3243	33.5	<u>3241</u>	<u>33.5</u>	3238	33.6		
416.gamess	8	1249	125	<u>1249</u>	<u>125</u>	1249	125	8	1249	125	<u>1249</u>	<u>125</u>	1249	125		
433.milc	8	3349	21.9	3346	21.9	<u>3348</u>	<u>21.9</u>	8	3362	21.8	<u>3361</u>	<u>21.9</u>	3360	21.9		
434.zeusmp	8	1205	60.4	<u>1203</u>	<u>60.5</u>	1198	60.8	8	1205	60.4	<u>1203</u>	<u>60.5</u>	1198	60.8		
435.gromacs	8	510	112	511	112	<u>511</u>	<u>112</u>	8	500	114	<u>500</u>	<u>114</u>	501	114		
436.cactusADM	8	<u>1464</u>	<u>65.3</u>	1464	65.3	1462	65.4	8	1439	66.4	<u>1438</u>	<u>66.5</u>	1435	66.6		
437.leslie3d	8	<u>3136</u>	<u>24.0</u>	3136	24.0	3136	24.0	8	<u>3136</u>	<u>24.0</u>	3136	24.0	3136	24.0		
444.namd	8	<u>664</u>	<u>96.6</u>	664	96.7	664	96.6	8	<u>664</u>	<u>96.6</u>	664	96.7	664	96.6		
447.dealII	8	1117	81.9	<u>1114</u>	<u>82.2</u>	1111	82.3	8	1082	84.6	1085	84.3	<u>1083</u>	<u>84.5</u>		
450.soplex	8	2218	30.1	<u>2219</u>	<u>30.1</u>	2219	30.1	8	<u>2191</u>	<u>30.5</u>	2191	30.5	2191	30.4		
453.povray	8	<u>338</u>	<u>126</u>	338	126	338	126	8	<u>260</u>	<u>163</u>	260	163	260	163		
454.calculix	8	788	83.7	<u>786</u>	<u>84.0</u>	772	85.5	8	<u>755</u>	<u>87.4</u>	752	87.8	757	87.2		
459.GemsFDTD	8	3823	22.2	3826	22.2	<u>3823</u>	<u>22.2</u>	8	3823	22.2	3826	22.2	<u>3823</u>	<u>22.2</u>		
465.tonto	8	1195	65.9	<u>1196</u>	<u>65.8</u>	1198	65.7	8	1187	66.3	<u>1176</u>	<u>67.0</u>	1150	68.5		
470.lbm	8	<u>4298</u>	<u>25.6</u>	4298	25.6	4298	25.6	8	4305	25.5	<u>4305</u>	<u>25.5</u>	4306	25.5		
481.wrf	8	<u>1921</u>	<u>46.5</u>	1922	46.5	1921	46.5	8	<u>1921</u>	<u>46.5</u>	1922	46.5	1921	46.5		
482.sphinx3	8	3439	45.3	3445	45.3	<u>3440</u>	<u>45.3</u>	8	3439	45.3	3445	45.3	<u>3440</u>	<u>45.3</u>		

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:
 High Bandwith Option Enabled
 (To Optimize throughput of High Bandwidth FSB applications
 on multiprocessor configurations)

General Notes

'start /b /wait /affinity' command is used to bind CPU(s) to processors.
 The Windows command "start /b /wait /affinity <hex_affinity_mask> application"
 starts the specified application without creating a new window (/b)
 and waits for its termination (/wait). Only the processors specified
 in <hex_affinity_mask> are allowed to execute the application.

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General Notes (Continued)

See the Windows documentation for the description of other parameters of the start command.

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



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Base Optimization Flags

C benchmarks:

-fast -F950000000

C++ benchmarks:

-fast -Qcxx-features -F950000000

Fortran benchmarks:

-fast -F950000000

Benchmarks using both Fortran and C:

-fast -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 -F950000000

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: Same as 410.bwaves

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Peak Optimization Flags (Continued)

Benchmarks using both Fortran and C:

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

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.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.

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