

SPEC® CFP2006 Result

Copyright 2006-2008 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

SPECfp®_rate2006 = 69.4

CELSIUS R650, Intel Xeon E5410 processor

SPECfp_rate_base2006 = 62.6

CPU2006 license: 22

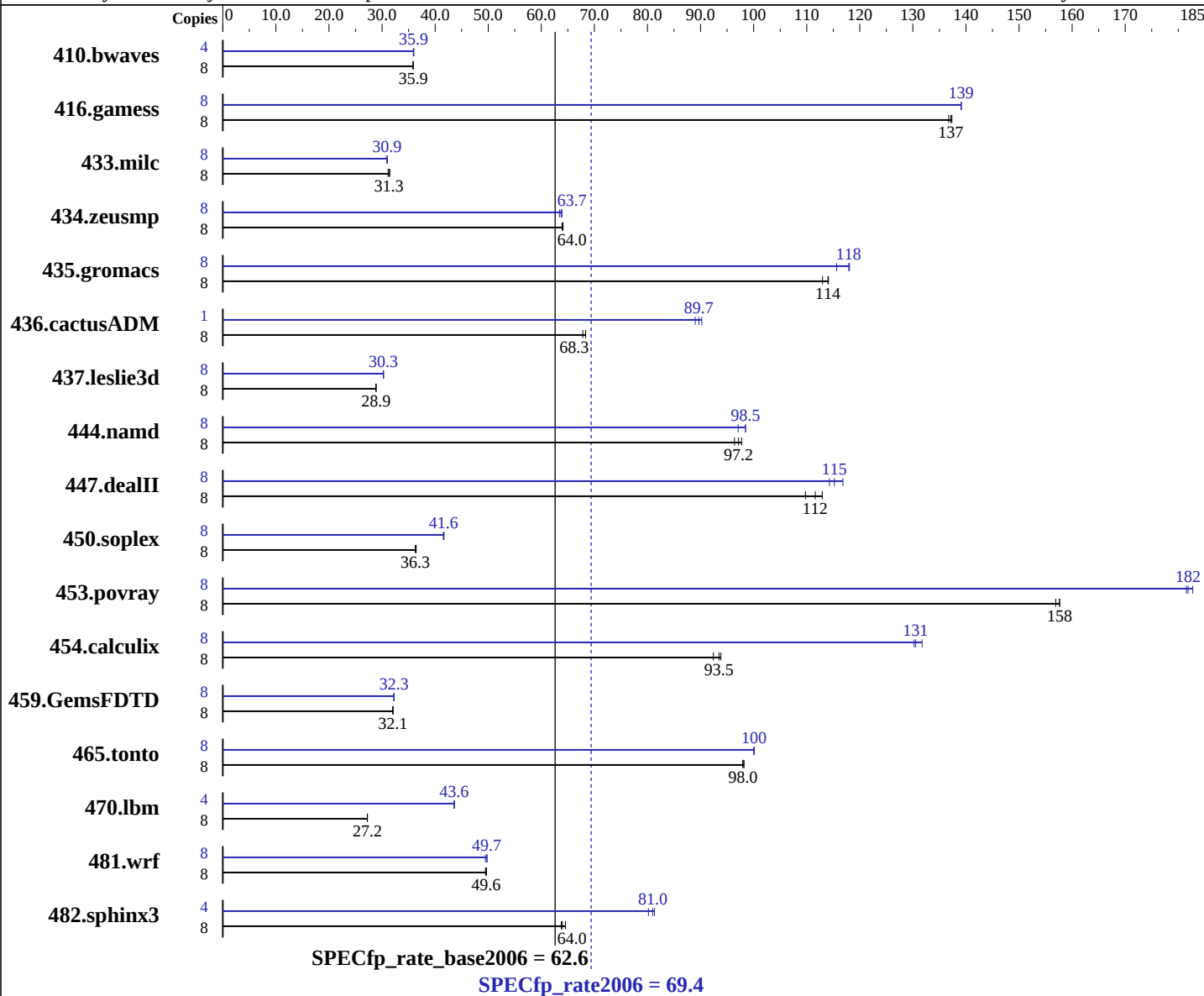
Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Nov-2007

Hardware Availability: Nov-2007

Software Availability: Nov-2007



Hardware

CPU Name: Intel Xeon E5410
CPU Characteristics: 2333
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: 12 MB I+D on chip per chip, 6 MB shared / 2 cores

Continued on next page

Software

Operating System: SuSE Linux Enterprise Server 10 (x86_64)
SP1, kernel 2.6.16.46-0.12-smp
Compiler: Intel C++ and Fortran Compiler
for Linux32 and Linux64
Version 10.1 - Build 20070725
Auto Parallel: Yes
File System: ext3
System State: Multi-User, Run Level 3
Base Pointers: 64-bit

Continued on next page

SPEC CFP2006 Result

Copyright 2006-2008 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

SPECfp_rate2006 = 69.4

CELSIUS R650, Intel Xeon E5410 processor

SPECfp_rate_base2006 = 62.6

CPU2006 license: 22

Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Nov-2007

Hardware Availability: Nov-2007

Software Availability: Nov-2007

Hardware (Continued)

L3 Cache: None
Other Cache: None
Memory: 8 GB (8x1 GB PC2-5300F, 2 rank, CL5-5-5, ECC)
Disk Subsystem: 1x SATA II, 400 GB, 7200 rpm
Other Hardware: None

Software (Continued)

Peak Pointers: 32/64-bit
Other Software: None

Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	<u>3031</u>	<u>35.9</u>	3034	35.8	3028	35.9	4	1514	35.9	<u>1512</u>	<u>35.9</u>	1510	36.0		
416.gamess	8	1140	137	1145	137	<u>1142</u>	<u>137</u>	8	1126	139	1126	139	<u>1126</u>	<u>139</u>		
433.milc	8	2335	31.5	<u>2346</u>	<u>31.3</u>	2359	31.1	8	2374	30.9	2371	31.0	<u>2373</u>	<u>30.9</u>		
434.zeusmp	8	1136	64.1	1139	63.9	<u>1138</u>	<u>64.0</u>	8	1148	63.4	<u>1142</u>	<u>63.7</u>	1139	63.9		
435.gromacs	8	506	113	<u>501</u>	<u>114</u>	501	114	8	484	118	494	116	<u>484</u>	<u>118</u>		
436.cactusADM	8	1410	67.8	1399	68.4	<u>1399</u>	<u>68.3</u>	1	<u>133</u>	<u>89.7</u>	134	89.0	132	90.2		
437.leslie3d	8	2607	28.8	<u>2606</u>	<u>28.9</u>	2604	28.9	8	<u>2485</u>	<u>30.3</u>	2487	30.2	2483	30.3		
444.namd	8	<u>660</u>	<u>97.2</u>	666	96.4	656	97.7	8	661	97.1	<u>652</u>	<u>98.5</u>	651	98.5		
447.dealII	8	<u>820</u>	<u>112</u>	810	113	834	110	8	783	117	<u>794</u>	<u>115</u>	801	114		
450.soplex	8	1831	36.4	<u>1839</u>	<u>36.3</u>	1839	36.3	8	1605	41.6	1601	41.7	<u>1604</u>	<u>41.6</u>		
453.povray	8	271	157	<u>270</u>	<u>158</u>	270	158	8	<u>234</u>	<u>182</u>	233	183	234	182		
454.calculix	8	703	93.8	714	92.4	<u>706</u>	<u>93.5</u>	8	507	130	<u>506</u>	<u>131</u>	501	132		
459.GemsFDTD	8	<u>2648</u>	<u>32.1</u>	2651	32.0	2647	32.1	8	2637	32.2	2632	32.3	<u>2632</u>	<u>32.3</u>		
465.tonto	8	<u>803</u>	<u>98.0</u>	802	98.2	804	97.9	8	786	100	<u>786</u>	<u>100</u>	787	100		
470.lbm	8	4037	27.2	<u>4036</u>	<u>27.2</u>	4036	27.2	4	1259	43.6	1261	43.6	<u>1261</u>	<u>43.6</u>		
481.wrf	8	1799	49.7	<u>1801</u>	<u>49.6</u>	1806	49.5	8	1795	49.8	<u>1797</u>	<u>49.7</u>	1807	49.5		
482.sphinx3	8	2416	64.5	<u>2438</u>	<u>64.0</u>	2446	63.8	4	972	80.2	<u>962</u>	<u>81.0</u>	959	81.3		

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

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

Platform Notes

BIOS configuration:
Enhanced Speedstep Technology = Disable
Hardware Prefetch = Disable, Adjacent Sector Prefetch = Disable
SnoopFilter = Enable

SPEC CFP2006 Result

Copyright 2006-2008 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

SPECfp_rate2006 = 69.4

CELSIUS R650, Intel Xeon E5410 processor

SPECfp_rate_base2006 = 62.6

CPU2006 license: 22

Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Nov-2007

Hardware Availability: Nov-2007

Software Availability: Nov-2007

General Notes

All binaries were built with 64-bit Intel compiler except:
437.leslie3d, 450.soplex, 470.lbm and 482.sphinx3 in peak were built with
32-bit Intel compiler by changing the path for include and library files.

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

Submitted_by: "Kratzer, Willi" <Willi.Kratzer@fujitsu-siemens.com>

Submitted: Tue Dec 18 11:49:28 2007

Submission: cpu2006-20071210-02802.sub

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icc ifort

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
450.soplex: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

SPEC CFP2006 Result

Copyright 2006-2008 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

SPECfp_rate2006 = 69.4

CELSIUS R650, Intel Xeon E5410 processor

SPECfp_rate_base2006 = 62.6

CPU2006 license: 22

Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Nov-2007

Hardware Availability: Nov-2007

Software Availability: Nov-2007

Base Optimization Flags

C benchmarks:

-fast

C++ benchmarks:

-fast

Fortran benchmarks:

-fast

Benchmarks using both Fortran and C:

-fast

Peak Compiler Invocation

C benchmarks (except as noted below):

/opt/intel/cc/10.1.008/bin/icc -L/opt/intel/cc/10.1.008/lib
-I/opt/intel/cc/10.1.008/include

433.milc: icc

C++ benchmarks (except as noted below):

icpc

450.soplex: /opt/intel/cc/10.1.008/bin/icpc -L/opt/intel/cc/10.1.008/lib
-I/opt/intel/cc/10.1.008/include

Fortran benchmarks (except as noted below):

ifort

437.leslie3d: /opt/intel/fc/10.1.008/bin/ifort -L/opt/intel/fc/10.1.008/lib
-I/opt/intel/fc/10.1.008/include

Benchmarks using both Fortran and C:

icc ifort

Peak Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64

Continued on next page

SPEC CFP2006 Result

Copyright 2006-2008 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

SPECfp_rate2006 = 69.4

CELSIUS R650, Intel Xeon E5410 processor

SPECfp_rate_base2006 = 62.6

CPU2006 license: 22

Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Nov-2007

Hardware Availability: Nov-2007

Software Availability: Nov-2007

Peak Portability Flags (Continued)

453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

433.milc: -prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias
-auto-ilp32

470.lbm: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2
-scalar-rep- -prefetch -opt-malloc-options=3

482.sphinx3: -fast -unroll2

C++ benchmarks:

444.namd: -prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias
-auto-ilp32

447.dealII: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2
-ansi-alias -scalar-rep-

450.soplex: -prof-gen(pass 1) -prof-use(pass 2) -fast
-opt-malloc-options=3

453.povray: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4
-ansi-alias

Fortran benchmarks:

410.bwaves: -fast -prefetch

416.gamess: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0
-ansi-alias -scalar-rep-

434.zeusmp: -prof-gen(pass 1) -prof-use(pass 2) -fast

437.leslie3d: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch
-opt-malloc-options=3

459.GemsFDTD: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0
-prefetch

Continued on next page

SPEC CFP2006 Result

Copyright 2006-2008 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

SPECfp_rate2006 = 69.4

CELSIUS R650, Intel Xeon E5410 processor

SPECfp_rate_base2006 = 62.6

CPU2006 license: 22

Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Nov-2007

Hardware Availability: Nov-2007

Software Availability: Nov-2007

Peak Optimization Flags (Continued)

465.tonto: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4 -auto

Benchmarks using both Fortran and C:

435.gromacs: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch
-auto-ilp32

436.cactusADM: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2
-prefetch -parallel -auto-ilp32

454.calculix: -fast -unroll-aggressive -auto-ilp32

481.wrf: -fast -auto-ilp32

The flags file that was used to format this result can be browsed at

<https://pro.spec.org/private/osg/submit/cpu2006/flags/flags-ic101-linux-intel64.html>

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

<https://pro.spec.org/private/osg/submit/cpu2006/flags/flags-ic101-linux-intel64.xml>

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.0.

Report generated on Tue Oct 14 20:00:03 2008 by SPEC CPU2006 PS/PDF formatter v6197.