



SPEC[®] CFP2006 Result

Copyright 2006-2008 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

SPECfp[®]_rate2006 = 52.1

PRIMERGY RX100 S5, Intel Xeon X3370, 3.0 GHz

SPECfp_rate_base2006 = 47.8

CPU2006 license: 22

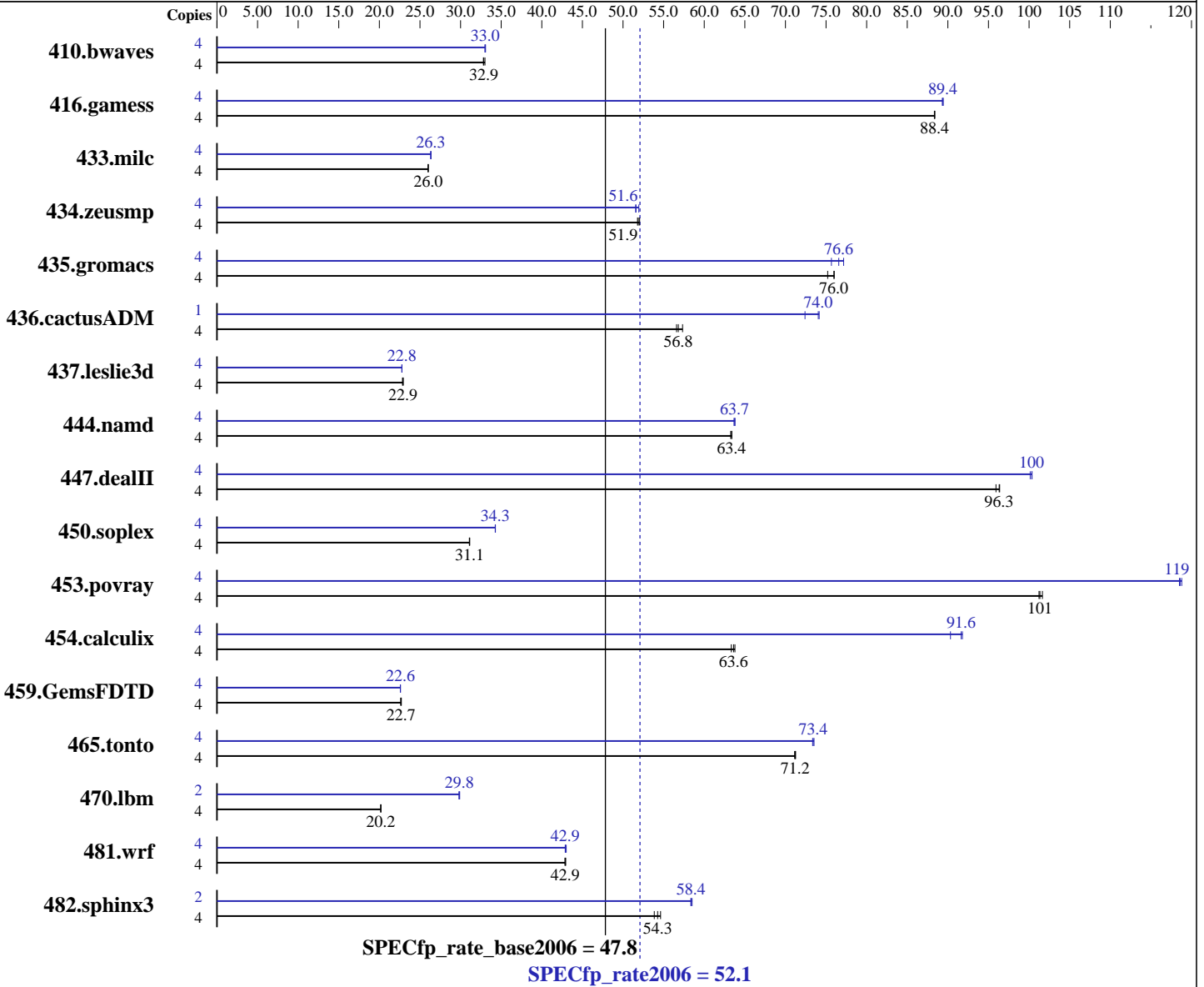
Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Aug-2008

Hardware Availability: Oct-2008

Software Availability: May-2008



Hardware

CPU Name: Intel Xeon X3370
 CPU Characteristics: 1333 MHz system bus
 CPU MHz: 3000
 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: 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) with SP2, kernel 2.6.16.60-0.21-smp
 Compiler: Intel C++ and Fortran Compiler for Linux32 and Linux64 Version 10.1 - Build 20070913
 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 = **52.1**

PRIMERGY RX100 S5, Intel Xeon X3370, 3.0 GHz

SPECfp_rate_base2006 = **47.8**

CPU2006 license: 22

Test date: Aug-2008

Test sponsor: Fujitsu Siemens Computers

Hardware Availability: Oct-2008

Tested by: Fujitsu Siemens Computers

Software Availability: May-2008

Hardware (Continued)

L3 Cache: None
Other Cache: None
Memory: 8 GB (4x2 GB PC2-6400E, 2 rank, CL 6-6-6, ECC)
Disk Subsystem: 1x SATA, 160 GB, 7200 rpm
Other Hardware: None

Software (Continued)

Peak Pointers: 32/64-bit
Other Software: binutils-2.17.50.0.5-0.1.x86_64

Results Table

| Benchmark | Base | | | | | | | | Peak | | | | | | | |
|---------------|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--|--|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | | |
| 410.bwaves | 4 | 1647 | 33.0 | <u>1655</u> | <u>32.9</u> | 1657 | 32.8 | 4 | <u>1646</u> | <u>33.0</u> | 1644 | 33.1 | 1647 | 33.0 | | |
| 416.gamess | 4 | 886 | 88.4 | <u>886</u> | <u>88.4</u> | 887 | 88.3 | 4 | 877 | 89.3 | 876 | 89.4 | <u>876</u> | <u>89.4</u> | | |
| 433.milc | 4 | <u>1412</u> | <u>26.0</u> | 1411 | 26.0 | 1412 | 26.0 | 4 | 1393 | 26.4 | <u>1395</u> | <u>26.3</u> | 1395 | 26.3 | | |
| 434.zeusmp | 4 | 699 | 52.0 | 703 | 51.8 | <u>702</u> | <u>51.9</u> | 4 | <u>705</u> | <u>51.6</u> | 701 | 51.9 | 706 | 51.6 | | |
| 435.gromacs | 4 | <u>376</u> | <u>76.0</u> | 376 | 76.0 | 380 | 75.2 | 4 | 370 | 77.2 | 377 | 75.7 | <u>373</u> | <u>76.6</u> | | |
| 436.cactusADM | 4 | <u>841</u> | <u>56.8</u> | 834 | 57.3 | 845 | 56.6 | 1 | 161 | 74.2 | <u>161</u> | <u>74.0</u> | 165 | 72.4 | | |
| 437.leslie3d | 4 | 1639 | 22.9 | 1646 | 22.8 | <u>1642</u> | <u>22.9</u> | 4 | 1651 | 22.8 | <u>1650</u> | <u>22.8</u> | 1650 | 22.8 | | |
| 444.namd | 4 | <u>506</u> | <u>63.4</u> | 506 | 63.4 | 507 | 63.3 | 4 | 504 | 63.7 | <u>503</u> | <u>63.7</u> | 503 | 63.8 | | |
| 447.dealII | 4 | 477 | 95.9 | <u>475</u> | <u>96.3</u> | 475 | 96.4 | 4 | <u>456</u> | <u>100</u> | 457 | 100 | 456 | 100 | | |
| 450.soplex | 4 | 1072 | 31.1 | 1073 | 31.1 | <u>1072</u> | <u>31.1</u> | 4 | <u>973</u> | <u>34.3</u> | 973 | 34.3 | 973 | 34.3 | | |
| 453.povray | 4 | <u>210</u> | <u>101</u> | 209 | 102 | 210 | 101 | 4 | <u>179</u> | <u>119</u> | 180 | 119 | 179 | 119 | | |
| 454.calculix | 4 | 517 | 63.8 | 521 | 63.3 | <u>519</u> | <u>63.6</u> | 4 | 365 | 90.3 | 359 | 91.8 | <u>360</u> | <u>91.6</u> | | |
| 459.GemsFDTD | 4 | 1876 | 22.6 | <u>1872</u> | <u>22.7</u> | 1869 | 22.7 | 4 | <u>1878</u> | <u>22.6</u> | 1878 | 22.6 | 1880 | 22.6 | | |
| 465.tonto | 4 | 552 | 71.3 | 553 | 71.1 | <u>553</u> | <u>71.2</u> | 4 | 537 | 73.3 | 535 | 73.5 | <u>536</u> | <u>73.4</u> | | |
| 470.lbm | 4 | 2724 | 20.2 | 2724 | 20.2 | <u>2724</u> | <u>20.2</u> | 2 | 919 | 29.9 | 922 | 29.8 | <u>921</u> | <u>29.8</u> | | |
| 481.wrf | 4 | <u>1042</u> | <u>42.9</u> | 1040 | 42.9 | 1043 | 42.9 | 4 | <u>1042</u> | <u>42.9</u> | 1039 | 43.0 | 1042 | 42.9 | | |
| 482.sphinx3 | 4 | <u>1437</u> | <u>54.3</u> | 1427 | 54.6 | 1448 | 53.8 | 2 | <u>668</u> | <u>58.4</u> | 666 | 58.5 | 668 | 58.4 | | |

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

Compiler Invocation Notes

All binaries were built with 64-bit Intel compiler except:
450.soplex, 470.lbm and 482.sphinx3 in peak were built with 32-bit Intel compiler.

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
OMP_NUM_THREADS set to number of cores (default)



SPEC CFP2006 Result

Copyright 2006-2008 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

SPECfp_rate2006 = 52.1

PRIMERGY RX100 S5, Intel Xeon X3370, 3.0 GHz

SPECfp_rate_base2006 = 47.8

CPU2006 license: 22

Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Aug-2008

Hardware Availability: Oct-2008

Software Availability: May-2008

Platform Notes

BIOS configuration:

Hardware Prefetch = Disable, Adjacent Sector Prefetch = Disable

General Notes

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

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 = 52.1

PRIMERGY RX100 S5, Intel Xeon X3370, 3.0 GHz

SPECfp_rate_base2006 = 47.8

CPU2006 license: 22

Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Aug-2008

Hardware Availability: Oct-2008

Software Availability: May-2008

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

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org/

Page 4



SPEC CFP2006 Result

Copyright 2006-2008 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

SPECfp_rate2006 = 52.1

PRIMERGY RX100 S5, Intel Xeon X3370, 3.0 GHz

SPECfp_rate_base2006 = 47.8

CPU2006 license: 22

Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Aug-2008

Hardware Availability: Oct-2008

Software Availability: May-2008

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 = 52.1

PRIMERGY RX100 S5, Intel Xeon X3370, 3.0 GHz

SPECfp_rate_base2006 = 47.8

CPU2006 license: 22

Test date: Aug-2008

Test sponsor: Fujitsu Siemens Computers

Hardware Availability: Oct-2008

Tested by: Fujitsu Siemens Computers

Software Availability: May-2008

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

<http://www.spec.org/cpu2006/flags/flags-ic101-linux-intel64.20080902.html>

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

<http://www.spec.org/cpu2006/flags/flags-ic101-linux-intel64.20080902.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 v1.1.
Report generated on Tue Sep 2 19:01:28 2008 by SPEC CPU2006 PS/PDF formatter v6197.