



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R110a-1H
(Intel Core 2 Duo T9400)

SPECfp[®]_rate2006 = 26.7

SPECfp_rate_base2006 = 25.7

CPU2006 license: 9006

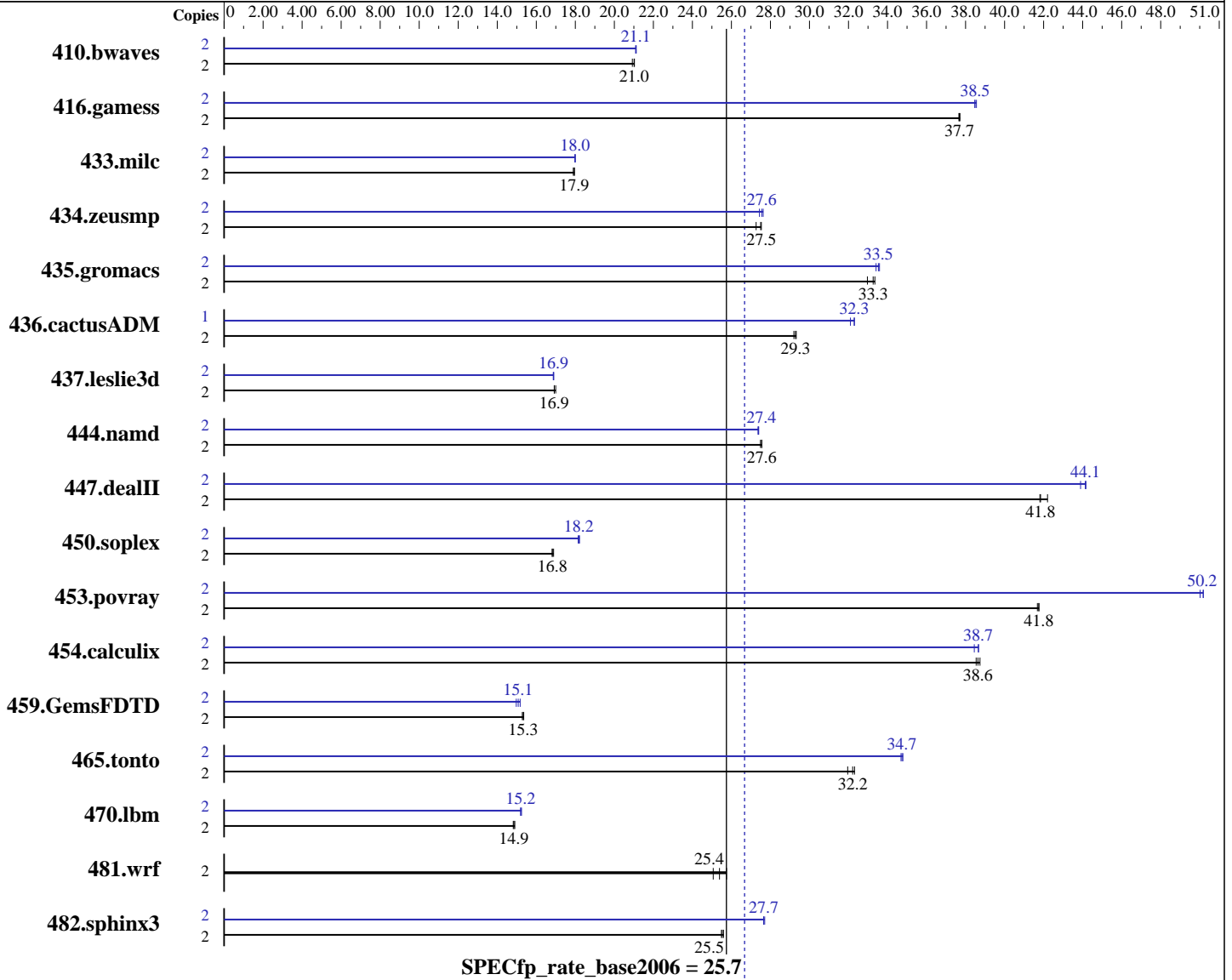
Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Feb-2009

Hardware Availability: Jan-2009

Software Availability: Nov-2008



Hardware

CPU Name: Intel Core 2 Duo T9400
 CPU Characteristics: 1066 MHz system bus
 CPU MHz: 2533
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
 CPU(s) orderable: 1 chip
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 6 MB I+D on chip per chip

Continued on next page

Software

Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP2, Kernel 2.6.16.60-0.21-smp
 Compiler: Intel C++ and Fortran Compiler 11.0 for Linux Build 20081105 Package ID: l_cproc_p_11.0.074, l_cprof_p_11.0.074
 Auto Parallel: Yes
 File System: ext2
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R110a-1H
(Intel Core 2 Duo T9400)

SPECfp_rate2006 = 26.7

SPECfp_rate_base2006 = 25.7

CPU2006 license: 9006
Test sponsor: NEC Corporation
Tested by: NEC Corporation

Test date: Feb-2009
Hardware Availability: Jan-2009
Software Availability: Nov-2008

L3 Cache: None
Other Cache: None
Memory: 8 GB (4x2 GB PC2-5300P, 1 rank, CL5-5-5, ECC)
Disk Subsystem: 1x160 GB SATAII, 7200 RPM
Other Hardware: None

Peak Pointers: 32/64-bit
Other Software: Binutils 2.18.50.0.7.20080502

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	2	1299	20.9	<u>1294</u>	<u>21.0</u>	1292	21.0	2	1289	21.1	<u>1288</u>	<u>21.1</u>	1287	21.1
416.gamess	2	1038	37.7	1040	37.7	<u>1039</u>	<u>37.7</u>	2	1016	38.6	1018	38.5	<u>1018</u>	<u>38.5</u>
433.milc	2	1026	17.9	<u>1023</u>	<u>17.9</u>	1023	18.0	2	<u>1021</u>	<u>18.0</u>	1021	18.0	1020	18.0
434.zeusmp	2	661	27.5	667	27.3	<u>662</u>	<u>27.5</u>	2	659	27.6	<u>660</u>	<u>27.6</u>	663	27.4
435.gromacs	2	<u>429</u>	<u>33.3</u>	428	33.4	433	33.0	2	427	33.4	425	33.6	<u>426</u>	<u>33.5</u>
436.cactusADM	2	818	29.2	815	29.3	<u>816</u>	<u>29.3</u>	1	<u>370</u>	<u>32.3</u>	370	32.3	372	32.1
437.leslie3d	2	1106	17.0	<u>1111</u>	<u>16.9</u>	1111	16.9	2	<u>1113</u>	<u>16.9</u>	1114	16.9	1113	16.9
444.namd	2	<u>582</u>	<u>27.6</u>	584	27.5	582	27.6	2	586	27.4	<u>586</u>	<u>27.4</u>	585	27.4
447.dealII	2	<u>547</u>	<u>41.8</u>	547	41.8	542	42.2	2	518	44.2	521	43.9	<u>518</u>	<u>44.1</u>
450.soplex	2	<u>991</u>	<u>16.8</u>	992	16.8	988	16.9	2	919	18.1	916	18.2	<u>917</u>	<u>18.2</u>
453.povray	2	<u>255</u>	<u>41.8</u>	255	41.7	255	41.8	2	213	50.0	<u>212</u>	<u>50.2</u>	212	50.2
454.calculix	2	426	38.7	428	38.5	<u>427</u>	<u>38.6</u>	2	<u>427</u>	<u>38.7</u>	427	38.7	429	38.4
459.GemsFDTD	2	1382	15.4	<u>1384</u>	<u>15.3</u>	1388	15.3	2	1398	15.2	1417	15.0	<u>1408</u>	<u>15.1</u>
465.tonto	2	<u>611</u>	<u>32.2</u>	609	32.3	616	32.0	2	<u>566</u>	<u>34.7</u>	567	34.7	566	34.8
470.lbm	2	1845	14.9	<u>1850</u>	<u>14.9</u>	1854	14.8	2	<u>1808</u>	<u>15.2</u>	1803	15.2	1808	15.2
481.wrf	2	<u>880</u>	<u>25.4</u>	868	25.8	891	25.1	2	<u>880</u>	<u>25.4</u>	868	25.8	891	25.1
482.sphinx3	2	1523	25.6	<u>1527</u>	<u>25.5</u>	1529	25.5	2	1410	27.7	<u>1409</u>	<u>27.7</u>	1407	27.7

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

Submit Notes

The config file option 'submit' was used.
taskset was used to bind processes to cores except
for 436.cactusADM peak

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
KMP_AFFINITY set to "physical,0"
KMP_STACKSIZE set to 64M



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R110a-1H
(Intel Core 2 Duo T9400)

SPECfp_rate2006 = 26.7

SPECfp_rate_base2006 = 25.7

CPU2006 license: 9006
Test sponsor: NEC Corporation
Tested by: NEC Corporation

Test date: Feb-2009
Hardware Availability: Jan-2009
Software Availability: Nov-2008

Platform Notes

Bios settings:
Hardware Prefetcher: Enabled
Adjacent Cache Line Prefetch: Enabled

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

Base Optimization Flags

C benchmarks:
-xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch

C++ benchmarks:
-xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R110a-1H
(Intel Core 2 Duo T9400)

SPECfp_rate2006 = 26.7

SPECfp_rate_base2006 = 25.7

CPU2006 license: 9006
Test sponsor: NEC Corporation
Tested by: NEC Corporation

Test date: Feb-2009
Hardware Availability: Jan-2009
Software Availability: Nov-2008

Base Optimization Flags (Continued)

Fortran benchmarks:

-xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch

Benchmarks using both Fortran and C:

-xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch

Peak Compiler Invocation

C benchmarks (except as noted below):

icc

482.sphinx3: /opt/intel/Compiler/11.0/074/bin/ia32/icc
-L/opt/intel/Compiler/11.0/074/ipp/ia32/lib
-I/opt/intel/Compiler/11.0/074/ipp/ia32/include

C++ benchmarks (except as noted below):

icpc

450.soplex: /opt/intel/Compiler/11.0/074/bin/ia32/icpc
-L/opt/intel/Compiler/11.0/074/ipp/ia32/lib
-I/opt/intel/Compiler/11.0/074/ipp/ia32/include

Fortran benchmarks (except as noted below):

ifort

437.leslie3d: /opt/intel/Compiler/11.0/074/bin/ia32/ifort
-L/opt/intel/Compiler/11.0/074/ipp/ia32/lib
-I/opt/intel/Compiler/11.0/074/ipp/ia32/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
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R110a-1H
(Intel Core 2 Duo T9400)

SPECfp_rate2006 = 26.7

SPECfp_rate_base2006 = 25.7

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Feb-2009

Hardware Availability: Jan-2009

Software Availability: Nov-2008

Peak Portability Flags (Continued)

465.tonto: -DSPEC_CPU_LP64
470.lbm: -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) -xSSE4.1 -ipo -O3
-no-prec-div -static -fno-alias

470.lbm: -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch
-auto-ilp32

482.sphinx3: -xSSE4.1 -ipo -O3 -no-prec-div -static -unroll2

C++ benchmarks:

444.namd: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -fno-alias -auto-ilp32

447.dealII: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll2 -ansi-alias -scalar-rep-

450.soplex: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -opt-malloc-options=3

453.povray: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll4 -ansi-alias

Fortran benchmarks:

410.bwaves: -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch

416.gamess: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll2 -Ob0 -ansi-alias
-scalar-rep-

434.zeusmp: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static

437.leslie3d: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -opt-malloc-options=3 -opt-prefetch

459.GemsFDTD: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll2 -Ob0 -opt-prefetch

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/R110a-1H
(Intel Core 2 Duo T9400)

SPECfp_rate2006 = 26.7

SPECfp_rate_base2006 = 25.7

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Feb-2009

Hardware Availability: Jan-2009

Software Availability: Nov-2008

Peak Optimization Flags (Continued)

465.tonto: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll4 -auto

Benchmarks using both Fortran and C:

435.gromacs: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -opt-prefetch -auto-ilp32

436.cactusADM: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll2 -opt-prefetch -parallel
-auto-ilp32

454.calculix: -xSSE4.1 -ipo -O3 -no-prec-div -static -auto-ilp32

481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-fp-linux64-revE.20090710.html>

<http://www.spec.org/cpu2006/flags/NEC-Intel-Linux-Settings-flags-revB.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-fp-linux64-revE.20090710.xml>

<http://www.spec.org/cpu2006/flags/NEC-Intel-Linux-Settings-flags-revB.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 Jul 22 22:29:43 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 17 March 2009.