



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/110Ri-1
(Intel Xeon X3350)

SPECfp®_rate2006 = 48.1

SPECfp_rate_base2006 = 45.4

CPU2006 license: 9006

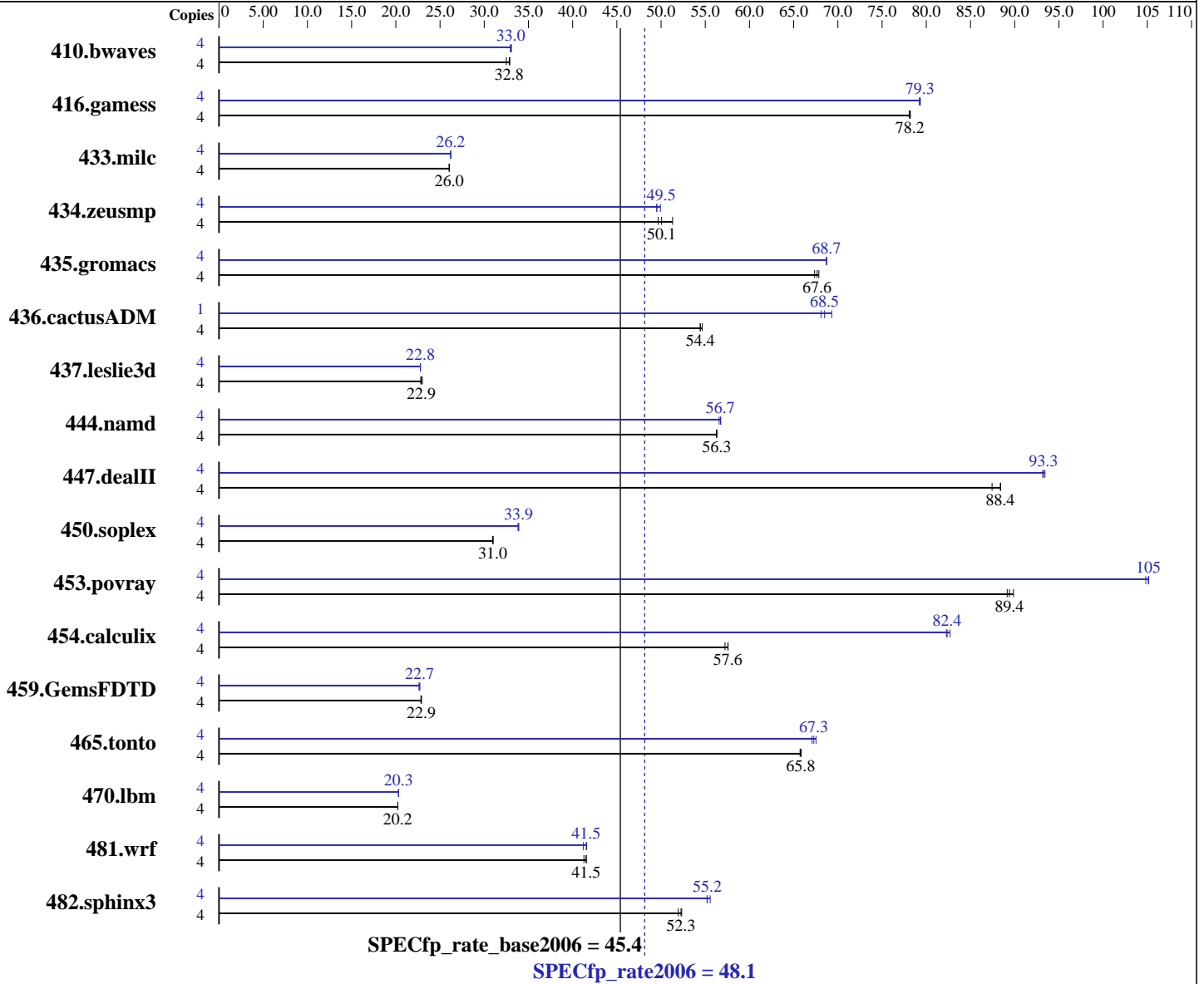
Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Jul-2008

Hardware Availability: Apr-2008

Software Availability: Nov-2007



Hardware

CPU Name: Intel Xeon X3350
 CPU Characteristics: 2.66 GHz, 2x6 MB L2 shared, 1333 MHz bus
 CPU MHz: 2667
 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) SP1, Kernel 2.6.16.46-0.12-smp
 Compiler: Intel C++ and Fortran Compiler for Linux version 10.1 Build 20070913 Package ID: l_cc_p_10.1.008, l_fc_p_10.1.008
 Auto Parallel: Yes
 File System: ReiserFS
 System State: Run level 3 (multi-user)

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/110Ri-1
(Intel Xeon X3350)

SPECfp_rate2006 = 48.1

SPECfp_rate_base2006 = 45.4

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

Test date: Jul-2008
Hardware Availability: Apr-2008
Software Availability: Nov-2007

L3 Cache: None
Other Cache: None
Memory: 8 GB (4x2 GB PC2-6400E, 2 rank, CL6-6-6, ECC)
Disk Subsystem: 1x80.0 GB SATAII, 7200RPM
Other Hardware: None

Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other Software: binutils 2.17

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	1672	32.5	1653	32.9	<u>1656</u>	<u>32.8</u>	4	1650	33.0	1643	33.1	<u>1647</u>	<u>33.0</u>
416.gamess	4	<u>1002</u>	<u>78.2</u>	1002	78.2	1003	78.1	4	989	79.2	987	79.3	<u>988</u>	<u>79.3</u>
433.milc	4	<u>1410</u>	<u>26.0</u>	1410	26.1	1410	26.0	4	1402	26.2	1400	26.2	<u>1401</u>	<u>26.2</u>
434.zeusmp	4	710	51.3	<u>727</u>	<u>50.1</u>	733	49.7	4	<u>735</u>	<u>49.5</u>	729	49.9	735	49.5
435.gromacs	4	421	67.9	424	67.4	<u>422</u>	<u>67.6</u>	4	416	68.7	<u>416</u>	<u>68.7</u>	416	68.7
436.cactusADM	4	<u>878</u>	<u>54.4</u>	878	54.4	874	54.7	1	172	69.3	175	68.1	<u>174</u>	<u>68.5</u>
437.leslie3d	4	1648	22.8	<u>1644</u>	<u>22.9</u>	1635	23.0	4	1650	22.8	1651	22.8	<u>1651</u>	<u>22.8</u>
444.namd	4	570	56.3	570	56.3	<u>570</u>	<u>56.3</u>	4	<u>566</u>	<u>56.7</u>	565	56.8	567	56.6
447.dealII	4	523	87.4	<u>518</u>	<u>88.4</u>	518	88.4	4	490	93.4	491	93.2	<u>491</u>	<u>93.3</u>
450.soplex	4	<u>1077</u>	<u>31.0</u>	1076	31.0	1078	31.0	4	984	33.9	986	33.8	<u>985</u>	<u>33.9</u>
453.povray	4	<u>238</u>	<u>89.4</u>	239	89.2	237	89.9	4	203	105	<u>202</u>	<u>105</u>	202	105
454.calculix	4	573	57.6	577	57.2	<u>573</u>	<u>57.6</u>	4	399	82.7	<u>401</u>	<u>82.4</u>	401	82.3
459.GemsFDTD	4	<u>1855</u>	<u>22.9</u>	1858	22.8	1853	22.9	4	1876	22.6	<u>1871</u>	<u>22.7</u>	1868	22.7
465.tonto	4	<u>598</u>	<u>65.8</u>	599	65.7	598	65.8	4	587	67.1	583	67.5	<u>585</u>	<u>67.3</u>
470.lbm	4	<u>2717</u>	<u>20.2</u>	2716	20.2	2717	20.2	4	<u>2706</u>	<u>20.3</u>	2706	20.3	2706	20.3
481.wrf	4	1082	41.3	1076	41.5	<u>1076</u>	<u>41.5</u>	4	1074	41.6	1084	41.2	<u>1076</u>	<u>41.5</u>
482.sphinx3	4	1501	52.0	1490	52.3	<u>1492</u>	<u>52.3</u>	4	1403	55.6	1412	55.2	<u>1412</u>	<u>55.2</u>

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
'/usr/bin/taskset' used to bind processes to CPUs
except for 436.cactusADM at peak.
OMP_NUM_THREADS set to number of cores

Platform Notes

Bios settings:
Hardware Prefetcher: Disabled
Adjacent Cache Line Prefetch: Disabled
Intel SpeedStep Technology: Enabled



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/110Ri-1
(Intel Xeon X3350)

SPECfp_rate2006 = 48.1

SPECfp_rate_base2006 = 45.4

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

Test date: Jul-2008
Hardware Availability: Apr-2008
Software Availability: Nov-2007

General Notes

All benchmarks compiled in 64-bit mode except 437.leslie3d, 450.soplex, 470.lbm and 482.sphinx3, for peak, are compiled in 32-bit mode

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:
-fast

C++ benchmarks:
-fast

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/110Ri-1
(Intel Xeon X3350)

SPECfp_rate2006 = 48.1

SPECfp_rate_base2006 = 45.4

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Jul-2008

Hardware Availability: Apr-2008

Software Availability: Nov-2007

Base Optimization Flags (Continued)

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
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



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/110Ri-1
(Intel Xeon X3350)

SPECfp_rate2006 = 48.1

SPECfp_rate_base2006 = 45.4

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

Test date: Jul-2008
Hardware Availability: Apr-2008
Software Availability: Nov-2007

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

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

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/110Ri-1
(Intel Xeon X3350)

SPECfp_rate2006 = 48.1

SPECfp_rate_base2006 = 45.4

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Jul-2008

Hardware Availability: Apr-2008

Software Availability: Nov-2007

Peak Optimization Flags (Continued)

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/NEC-Intel-ic10.1-FP-intel64-linux-flags.html>

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

<http://www.spec.org/cpu2006/flags/NEC-Intel-ic10.1-FP-intel64-linux-flags.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 Jul 22 19:27:40 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 19 August 2008.