



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/GT110b-S  
(Intel Pentium G6950)

SPECfp®2006 = 26.8

SPECfp\_base2006 = 25.7

CPU2006 license: 9006

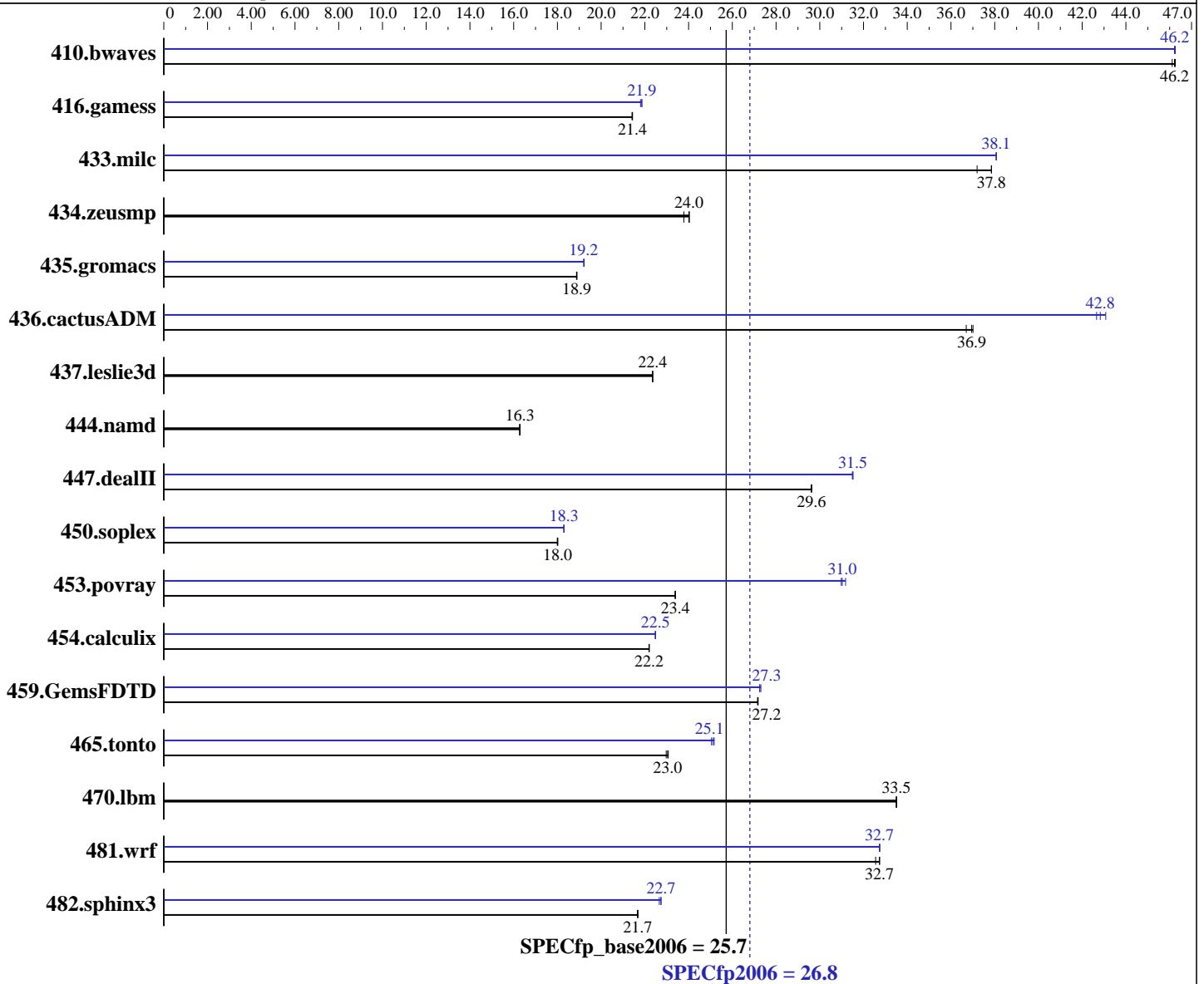
Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Feb-2010

Hardware Availability: Apr-2010

Software Availability: Nov-2009



### Hardware

CPU Name: Intel Pentium G6950  
 CPU Characteristics:  
 CPU MHz: 2800  
 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: 256 KB I+D on chip per core

Continued on next page

### Software

Operating System: SUSE Linux Enterprise Server 11 (x86\_64),  
Kernel 2.6.27.19-5-default  
 Compiler: Intel C++ and Fortran Professional Compiler for  
IA32 and Intel 64, Version 11.1  
Build 20091012 Package ID: l\_cproc\_p\_11.1.059,  
l\_cprof\_p\_11.1.059  
 Auto Parallel: Yes  
 File System: ext3  
 System State: Run level 3 (multi-user)

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/GT110b-S  
(Intel Pentium G6950)

SPECfp2006 = **26.8**

SPECfp\_base2006 = **25.7**

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Feb-2010

Hardware Availability: Apr-2010

Software Availability: Nov-2009

L3 Cache: 3 MB I+D on chip per chip  
Other Cache: None  
Memory: 8 GB (4 x 2 GB PC3-10600E running at 1066 MHz)  
Disk Subsystem: 1x160 GB SATA, 7200 RPM  
Other Hardware: None

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

## Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	295	46.1	294	46.3	<b><u>294</u></b>	<b><u>46.2</u></b>	<b><u>294</u></b>	<b><u>46.2</u></b>	294	46.3	294	46.2
416.gamess	914	21.4	913	21.4	<b><u>914</u></b>	<b><u>21.4</u></b>	895	21.9	<b><u>896</u></b>	<b><u>21.9</u></b>	898	21.8
433.milc	<b><u>243</u></b>	<b><u>37.8</u></b>	247	37.2	243	37.9	241	38.1	241	38.1	<b><u>241</u></b>	<b><u>38.1</u></b>
434.zeusmp	383	23.8	379	24.0	<b><u>379</u></b>	<b><u>24.0</u></b>	383	23.8	379	24.0	<b><u>379</u></b>	<b><u>24.0</u></b>
435.gromacs	378	18.9	378	18.9	<b><u>378</u></b>	<b><u>18.9</u></b>	<b><u>372</u></b>	<b><u>19.2</u></b>	371	19.2	372	19.2
436.cactusADM	323	37.0	<b><u>323</u></b>	<b><u>36.9</u></b>	326	36.7	277	43.1	280	42.7	<b><u>279</u></b>	<b><u>42.8</u></b>
437.leslie3d	<b><u>420</u></b>	<b><u>22.4</u></b>	420	22.4	420	22.4	<b><u>420</u></b>	<b><u>22.4</u></b>	420	22.4	420	22.4
444.namd	492	16.3	<b><u>493</u></b>	<b><u>16.3</u></b>	493	16.3	492	16.3	<b><u>493</u></b>	<b><u>16.3</u></b>	493	16.3
447.dealII	386	29.6	386	29.6	<b><u>386</u></b>	<b><u>29.6</u></b>	<b><u>363</u></b>	<b><u>31.5</u></b>	363	31.5	363	31.5
450.soplex	463	18.0	<b><u>463</u></b>	<b><u>18.0</u></b>	463	18.0	<b><u>456</u></b>	<b><u>18.3</u></b>	456	18.3	456	18.3
453.povray	228	23.4	<b><u>227</u></b>	<b><u>23.4</u></b>	227	23.4	<b><u>171</u></b>	<b><u>31.0</u></b>	171	31.2	172	31.0
454.calculix	372	22.2	<b><u>372</u></b>	<b><u>22.2</u></b>	372	22.2	<b><u>367</u></b>	<b><u>22.5</u></b>	367	22.5	367	22.5
459.GemsFDTD	391	27.2	390	27.2	<b><u>391</u></b>	<b><u>27.2</u></b>	<b><u>389</u></b>	<b><u>27.3</u></b>	389	27.3	389	27.3
465.tonto	427	23.1	<b><u>427</u></b>	<b><u>23.0</u></b>	428	23.0	<b><u>392</u></b>	<b><u>25.1</u></b>	391	25.2	393	25.0
470.lbm	410	33.5	410	33.5	<b><u>410</u></b>	<b><u>33.5</u></b>	410	33.5	410	33.5	<b><u>410</u></b>	<b><u>33.5</u></b>
481.wrf	341	32.7	343	32.6	<b><u>341</u></b>	<b><u>32.7</u></b>	<b><u>341</u></b>	<b><u>32.7</u></b>	341	32.7	341	32.7
482.sphinx3	899	21.7	<b><u>899</u></b>	<b><u>21.7</u></b>	900	21.7	<b><u>857</u></b>	<b><u>22.7</u></b>	860	22.7	857	22.7

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

Default BIOS settings were used.

## General Notes

OMP\_NUM\_THREADS set to number of cores  
KMP\_AFFINITY set to granularity=fine,scatter  
KMP\_STACKSIZE set to 200M



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/GT110b-S  
(Intel Pentium G6950)

**SPECfp2006 = 26.8**

**SPECfp\_base2006 = 25.7**

**CPU2006 license:** 9006

**Test sponsor:** NEC Corporation

**Tested by:** NEC Corporation

**Test date:** Feb-2010

**Hardware Availability:** Apr-2010

**Software Availability:** Nov-2009

## Base Compiler Invocation

C benchmarks:

icc -m64

C++ benchmarks:

icpc -m64

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

## 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:

-xSSSE3 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

C++ benchmarks:

-xSSSE3 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Fortran benchmarks:

-xSSSE3 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:

-xSSSE3 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/GT110b-S  
(Intel Pentium G6950)

**SPECfp2006 = 26.8**

**SPECfp\_base2006 = 25.7**

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

**Test date:** Feb-2010  
**Hardware Availability:** Apr-2010  
**Software Availability:** Nov-2009

## Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m64

482.sphinx3: icc -m32

C++ benchmarks (except as noted below):

icpc -m64

450.soplex: icpc -m32

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

## 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  
437.leslie3d: -DSPEC\_CPU\_LP64  
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  
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) -xSSSE3 -ipo -O3  
-no-prec-div -static -fno-alias

470.lbm: basepeak = yes

482.sphinx3: -xSSSE3 -ipo -O3 -no-prec-div -static -unroll2

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/GT110b-S  
(Intel Pentium G6950)

**SPECfp2006 = 26.8**

**SPECfp\_base2006 = 25.7**

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

**Test date:** Feb-2010  
**Hardware Availability:** Apr-2010  
**Software Availability:** Nov-2009

## Peak Optimization Flags (Continued)

C++ benchmarks:

444.namd: basepeak = yes

447.dealII: -prof-gen(pass 1) -prof-use(pass 2) -xSSSE3 -ipo -O3  
-no-prec-div -static -unroll2 -ansi-alias -scalar-rep-  
-opt-prefetch

450.soplex: -prof-gen(pass 1) -prof-use(pass 2) -xSSSE3 -ipo -O3  
-no-prec-div -static -opt-malloc-options=3

453.povray: -prof-gen(pass 1) -prof-use(pass 2) -xSSSE3 -ipo -O3  
-no-prec-div -static -unroll4 -ansi-alias

Fortran benchmarks:

410.bwaves: -xSSSE3 -ipo -O3 -no-prec-div -static -opt-prefetch  
-parallel

416.gamess: -prof-gen(pass 1) -prof-use(pass 2) -xSSSE3 -ipo -O3  
-no-prec-div -static -unroll2 -Ob0 -ansi-alias  
-scalar-rep-

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -prof-gen(pass 1) -prof-use(pass 2) -xSSSE3 -ipo -O3  
-no-prec-div -static -unroll2 -Ob0 -opt-prefetch  
-parallel

465.tonto: -prof-gen(pass 1) -prof-use(pass 2) -xSSSE3 -ipo -O3  
-no-prec-div -static -unroll4 -auto

Benchmarks using both Fortran and C:

435.gromacs: -prof-gen(pass 1) -prof-use(pass 2) -xSSSE3 -ipo -O3  
-no-prec-div -static -opt-prefetch -auto-ilp32

436.cactusADM: -prof-gen(pass 1) -prof-use(pass 2) -xSSSE3 -ipo -O3  
-no-prec-div -static -unroll2 -opt-prefetch -parallel  
-auto-ilp32

454.calculix: -xSSSE3 -ipo -O3 -no-prec-div -static -auto-ilp32

481.wrf: -xSSSE3 -ipo -O3 -no-prec-div -static -opt-prefetch  
-parallel -auto-ilp32



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/GT110b-S  
(Intel Pentium G6950)

**SPECfp2006 = 26.8**

**SPECfp\_base2006 = 25.7**

**CPU2006 license:** 9006

**Test sponsor:** NEC Corporation

**Tested by:** NEC Corporation

**Test date:** Feb-2010

**Hardware Availability:** Apr-2010

**Software Availability:** Nov-2009

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-fp-linux64-revE.20100302.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-fp-linux64-revE.20100302.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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.1.  
Report generated on Wed Jul 23 06:52:21 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 11 May 2010.