



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/110Rh-1  
(Intel Xeon processor X3210)

SPECfp®2006 = 14.6

SPECfp\_base2006 = 14.1

CPU2006 license: 9006

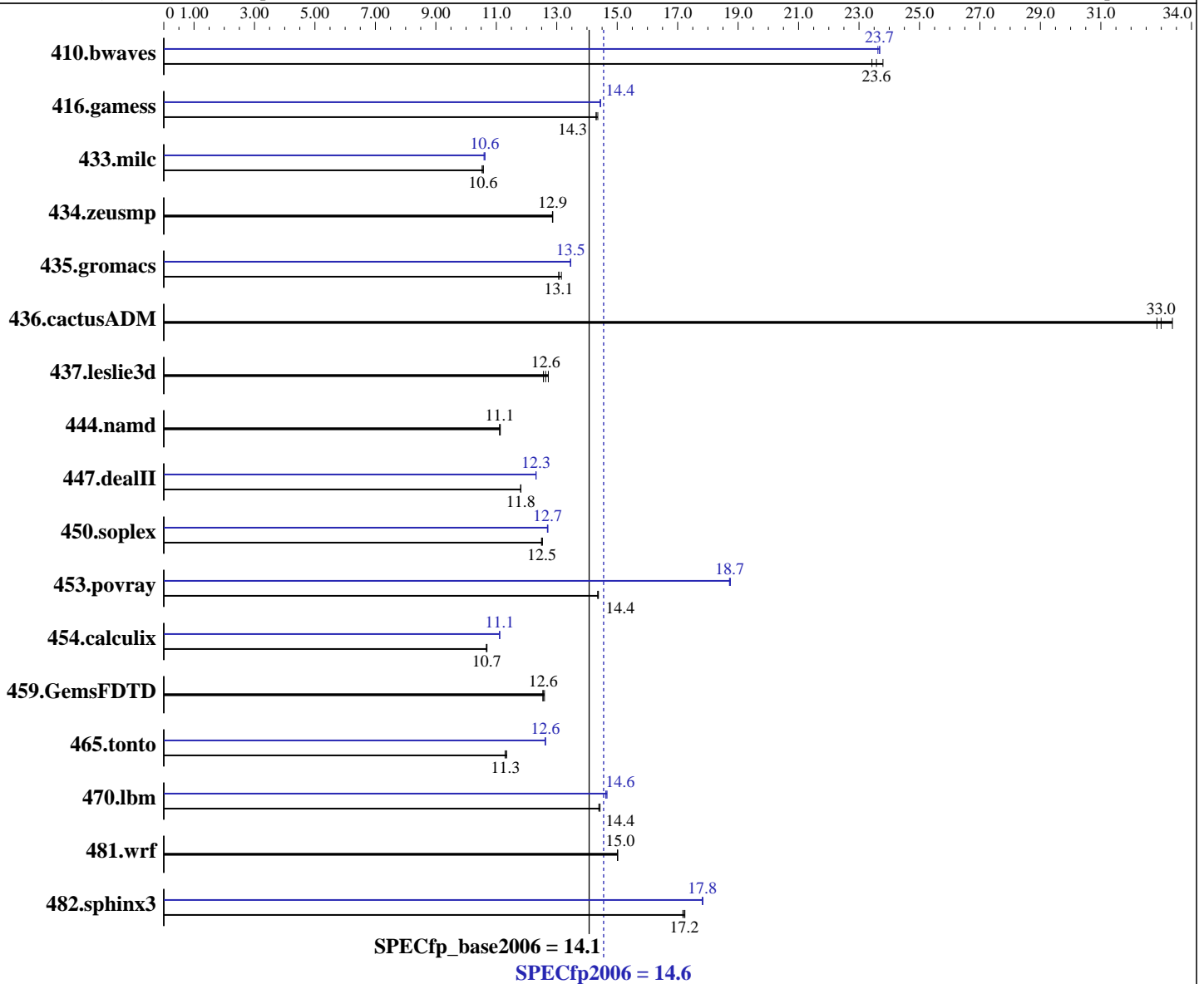
Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Nov-2007

Hardware Availability: Jan-2007

Software Availability: Apr-2007



### Hardware

CPU Name: Intel Xeon X3210  
 CPU Characteristics: 2.13 GHz, 2x4 MB L2 shared, 1066 MHz bus  
 CPU MHz: 2133  
 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: 8 MB I+D on chip per chip, 4 MB shared / 2 cores

Continued on next page

### Software

Operating System: Windows Server 2003 Standard x64 Edition Service Pack1  
 Compiler: Intel C++ Compiler for EM64T version 9.1 Build 20070322, Package-ID W\_CC\_C\_9.1.037  
 Intel Fortran Compiler for EM64T version 9.1 Build 20070322, Package-ID W\_FC\_C\_9.1.037  
 Microsoft Visual Studio 2005 (libr. & linker)  
 Auto Parallel: Yes  
 File System: NTFS

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## NEC Corporation

Express5800/110Rh-1  
(Intel Xeon processor X3210)

SPECfp2006 = 14.6

SPECfp\_base2006 = 14.1

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Nov-2007

Hardware Availability: Jan-2007

Software Availability: Apr-2007

L3 Cache: None  
Other Cache: None  
Memory: 4 GB (4x1 GB PC2-5300E, 2 rank, CL5-5-5, ECC)  
Disk Subsystem: 1x80 GB SATAII, 7200RPM  
Other Hardware: None

System State: Default  
Base Pointers: 64-bit  
Peak Pointers: 64-bit  
Other Software: None

## Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	580	23.4	<b>576</b>	<b>23.6</b>	571	23.8	575	23.6	<b>574</b>	<b>23.7</b>	574	23.7
416.gamess	1364	14.4	1369	14.3	<b>1369</b>	<b>14.3</b>	<b>1356</b>	<b>14.4</b>	1355	14.5	1356	14.4
433.milc	872	10.5	<b>869</b>	<b>10.6</b>	868	10.6	867	10.6	864	10.6	<b>865</b>	<b>10.6</b>
434.zeusmp	708	12.9	707	12.9	<b>707</b>	<b>12.9</b>	708	12.9	707	12.9	<b>707</b>	<b>12.9</b>
435.gromacs	543	13.2	546	13.1	<b>546</b>	<b>13.1</b>	531	13.5	<b>531</b>	<b>13.5</b>	530	13.5
436.cactusADM	358	33.4	<b>362</b>	<b>33.0</b>	364	32.9	358	33.4	<b>362</b>	<b>33.0</b>	364	32.9
437.leslie3d	739	12.7	749	12.6	<b>744</b>	<b>12.6</b>	739	12.7	749	12.6	<b>744</b>	<b>12.6</b>
444.namd	720	11.1	<b>722</b>	<b>11.1</b>	722	11.1	720	11.1	<b>722</b>	<b>11.1</b>	722	11.1
447.dealII	968	11.8	<b>969</b>	<b>11.8</b>	969	11.8	929	12.3	929	12.3	<b>929</b>	<b>12.3</b>
450.soplex	667	12.5	<b>667</b>	<b>12.5</b>	666	12.5	657	12.7	<b>657</b>	<b>12.7</b>	656	12.7
453.povray	370	14.4	<b>370</b>	<b>14.4</b>	371	14.4	284	18.7	284	18.7	<b>284</b>	<b>18.7</b>
454.calculix	772	10.7	<b>773</b>	<b>10.7</b>	773	10.7	743	11.1	742	11.1	<b>743</b>	<b>11.1</b>
459.GemsFDTD	842	12.6	846	12.5	<b>845</b>	<b>12.6</b>	842	12.6	846	12.5	<b>845</b>	<b>12.6</b>
465.tonto	867	11.3	871	11.3	<b>870</b>	<b>11.3</b>	779	12.6	<b>780</b>	<b>12.6</b>	780	12.6
470.lbm	955	14.4	952	14.4	<b>953</b>	<b>14.4</b>	937	14.7	<b>939</b>	<b>14.6</b>	940	14.6
481.wrf	<b>744</b>	<b>15.0</b>	744	15.0	744	15.0	<b>744</b>	<b>15.0</b>	744	15.0	744	15.0
482.sphinx3	1135	17.2	1131	17.2	<b>1132</b>	<b>17.2</b>	<b>1094</b>	<b>17.8</b>	1094	17.8	1093	17.8

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

## General Notes

The system bus runs at 1066 MHz  
All binaries were built with 64-bit Intel compiler.

## Base Compiler Invocation

C benchmarks:  
icl -Qvc8 -Qc99

C++ benchmarks:  
icl -Qvc8

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/110Rh-1  
(Intel Xeon processor X3210)

**SPECfp2006 = 14.6**

**SPECfp\_base2006 = 14.1**

**CPU2006 license:** 9006

**Test sponsor:** NEC Corporation

**Tested by:** NEC Corporation

**Test date:** Nov-2007

**Hardware Availability:** Jan-2007

**Software Availability:** Apr-2007

## Base Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc8 -Qc99 ifort

## Base Portability Flags

410.bwaves: -DSPEC\_CPU\_P64  
 416.gamess: -DSPEC\_CPU\_P64  
 433.milc: -D\_Complex= -DSPEC\_CPU\_P64  
 434.zeusmp: -DSPEC\_CPU\_P64  
 435.gromacs: -D\_Complex= -DSPEC\_CPU\_P64  
 436.cactusADM: -D\_Complex= -DSPEC\_CPU\_P64 -Qlowercase /assume:underscore  
 437.leslie3d: -DSPEC\_CPU\_P64  
 444.namd: -DSPEC\_CPU\_P64 /TP  
 447.dealII: -D\_Complex= -DSPEC\_CPU\_P64 -DBOOST\_NO\_INTRINSIC\_WCHAR\_T  
 -DDEAL\_II\_MEMBER\_VAR\_SPECIALIZATION\_BUG  
 450.soplex: -DSPEC\_CPU\_P64  
 453.povray: -DSPEC\_CPU\_P64 -DSPEC\_CPU\_WINDOWS\_ICL  
 454.calculix: -D\_Complex= -DSPEC\_CPU\_P64 -DSPEC\_CPU\_NOZMODIFIER  
 -Qlowercase  
 459.GemsFDTD: -DSPEC\_CPU\_P64  
 465.tonto: -DSPEC\_CPU\_P64  
 470.lbm: -D\_Complex= -DSPEC\_CPU\_P64  
 481.wrf: -DSPEC\_CPU\_P64 -DSPEC\_CPU\_WINDOWS\_ICL  
 482.sphinx3: -D\_Complex= -DSPEC\_CPU\_P64

## Base Optimization Flags

C benchmarks:

-fast -Qparallel -F950000000 -link -FORCE:MULTIPLE

C++ benchmarks:

-fast -Qparallel -Qcxx-features -F950000000  
-link -FORCE:MULTIPLE

Fortran benchmarks:

-fast -Qparallel -F950000000 -link -FORCE:MULTIPLE

Benchmarks using both Fortran and C:

-fast -Qparallel -F950000000 -link -FORCE:MULTIPLE



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/110Rh-1  
(Intel Xeon processor X3210)

**SPECfp2006 = 14.6**

**SPECfp\_base2006 = 14.1**

**CPU2006 license:** 9006

**Test sponsor:** NEC Corporation

**Tested by:** NEC Corporation

**Test date:** Nov-2007

**Hardware Availability:** Jan-2007

**Software Availability:** Apr-2007

## Peak Compiler Invocation

C benchmarks:

icl -Qvc8 -Qc99

C++ benchmarks:

icl -Qvc8

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc8 -Qc99 ifort

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

-Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -F950000000  
-link -FORCE:MULTIPLE

C++ benchmarks:

444.namd: basepeak = yes

447.dealII: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -Qcxx-features  
-F950000000 -link -FORCE:MULTIPLE

450.soplex: Same as 447.dealII

453.povray: Same as 447.dealII

Fortran benchmarks:

410.bwaves: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -Qparallel  
-F950000000 -link -FORCE:MULTIPLE

416.gamess: -fast -F950000000 -link -FORCE:MULTIPLE

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**NEC Corporation**

Express5800/110Rh-1  
(Intel Xeon processor X3210)

**SPECfp2006 = 14.6**

**SPECfp\_base2006 = 14.1**

**CPU2006 license:** 9006

**Test sponsor:** NEC Corporation

**Tested by:** NEC Corporation

**Test date:** Nov-2007

**Hardware Availability:** Jan-2007

**Software Availability:** Apr-2007

## Peak Optimization Flags (Continued)

465.tonto: Same as 410.bwaves

Benchmarks using both Fortran and C:

435.gromacs: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -F950000000  
-link -FORCE:MULTIPLE

436.cactusADM: basepeak = yes

454.calculix: Same as 435.gromacs

481.wrf: basepeak = yes

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

<http://www.spec.org/cpu2006/flags/NEC-ic91-FP-win-flags.html>

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

<http://www.spec.org/cpu2006/flags/NEC-ic91-FP-win-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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.0.  
Report generated on Tue Jul 22 13:52:16 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 11 December 2007.