



# SPEC® CFP2006 Result

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## NEC Corporation

Express5800/120Bb-m6  
(Intel Xeon processor 5130)

SPECfp®2006 = 13.2

SPECfp\_base2006 = 12.8

CPU2006 license: 9006

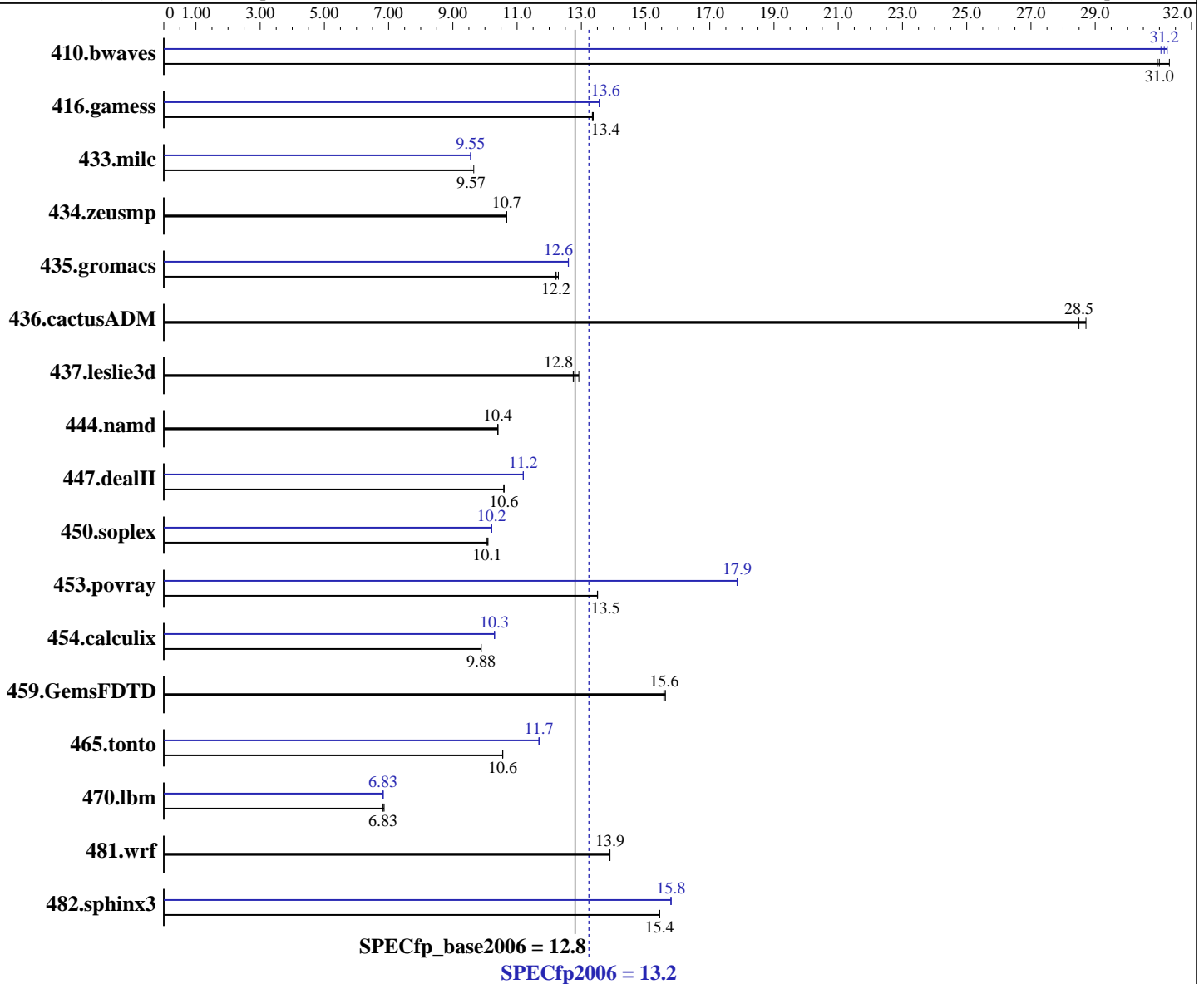
Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Sep-2007

Hardware Availability: Jan-2007

Software Availability: Apr-2007



### Hardware

CPU Name: Intel Xeon 5130  
 CPU Characteristics: 2.00 GHz, 4MB L2, 1333MHz bus  
 CPU MHz: 2000  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip  
 CPU(s) orderable: 1,2 chips  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 4 MB I+D on chip per chip

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### 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

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L3 Cache: None  
Other Cache: None  
Memory: 8 GB (8x1 GB PC2-5300F, 2 rank, CL5-5-5, ECC)  
Disk Subsystem: 1x73.2 GB SAS, 10000RPM  
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	434	31.3	439	30.9	<b>438</b>	<b>31.0</b>	<b>436</b>	<b>31.2</b>	438	31.0	435	31.2
416.gamess	<b>1467</b>	<b>13.4</b>	1467	13.3	1464	13.4	1444	13.6	1445	13.6	<b>1444</b>	<b>13.6</b>
433.milc	951	9.65	<b>960</b>	<b>9.57</b>	960	9.57	961	9.55	960	9.56	<b>961</b>	<b>9.55</b>
434.zeusmp	853	10.7	<b>853</b>	<b>10.7</b>	853	10.7	853	10.7	<b>853</b>	<b>10.7</b>	853	10.7
435.gromacs	581	12.3	585	12.2	<b>585</b>	<b>12.2</b>	567	12.6	<b>567</b>	<b>12.6</b>	567	12.6
436.cactusADM	416	28.7	<b>419</b>	<b>28.5</b>	420	28.5	416	28.7	<b>419</b>	<b>28.5</b>	420	28.5
437.leslie3d	727	12.9	737	12.7	<b>737</b>	<b>12.8</b>	727	12.9	737	12.7	<b>737</b>	<b>12.8</b>
444.namd	771	10.4	<b>771</b>	<b>10.4</b>	771	10.4	771	10.4	<b>771</b>	<b>10.4</b>	771	10.4
447.dealII	1080	10.6	<b>1080</b>	<b>10.6</b>	1080	10.6	<b>1022</b>	<b>11.2</b>	1022	11.2	1022	11.2
450.soplex	826	10.1	828	10.1	<b>828</b>	<b>10.1</b>	<b>817</b>	<b>10.2</b>	817	10.2	817	10.2
453.povray	<b>394</b>	<b>13.5</b>	394	13.5	394	13.5	298	17.8	298	17.9	<b>298</b>	<b>17.9</b>
454.calculix	<b>835</b>	<b>9.88</b>	835	9.88	835	9.88	801	10.3	<b>801</b>	<b>10.3</b>	801	10.3
459.GemsFDTD	679	15.6	<b>681</b>	<b>15.6</b>	681	15.6	679	15.6	<b>681</b>	<b>15.6</b>	681	15.6
465.tonto	932	10.6	<b>933</b>	<b>10.6</b>	933	10.5	843	11.7	<b>842</b>	<b>11.7</b>	842	11.7
470.lbm	2003	6.86	<b>2012</b>	<b>6.83</b>	2012	6.83	<b>2012</b>	<b>6.83</b>	2012	6.83	2012	6.83
481.wrf	<b>804</b>	<b>13.9</b>	804	13.9	804	13.9	<b>804</b>	<b>13.9</b>	804	13.9	804	13.9
482.sphinx3	1262	15.4	<b>1263</b>	<b>15.4</b>	1263	15.4	1234	15.8	1234	15.8	<b>1234</b>	<b>15.8</b>

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

## Base Compiler Invocation

C benchmarks:  
icl -Qvc8 -Qc99

C++ benchmarks:  
icl -Qvc8

Fortran benchmarks:  
ifort

Benchmarks using both Fortran and C:  
icl -Qvc8 -Qc99 ifort



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## 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

```

## Peak Compiler Invocation

```

C benchmarks:
  icl -Qvc8 -Qc99

C++ benchmarks:
  icl -Qvc8

Fortran benchmarks:
  ifort

```

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## Peak Compiler Invocation (Continued)

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

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

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## Peak Optimization Flags (Continued)

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.20090714.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.20090714.xml>

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For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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