



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/120Li
(Intel Xeon processor 5110)

SPECfp®2006 = 10.7

SPECfp_base2006 = 10.4

CPU2006 license: 9006

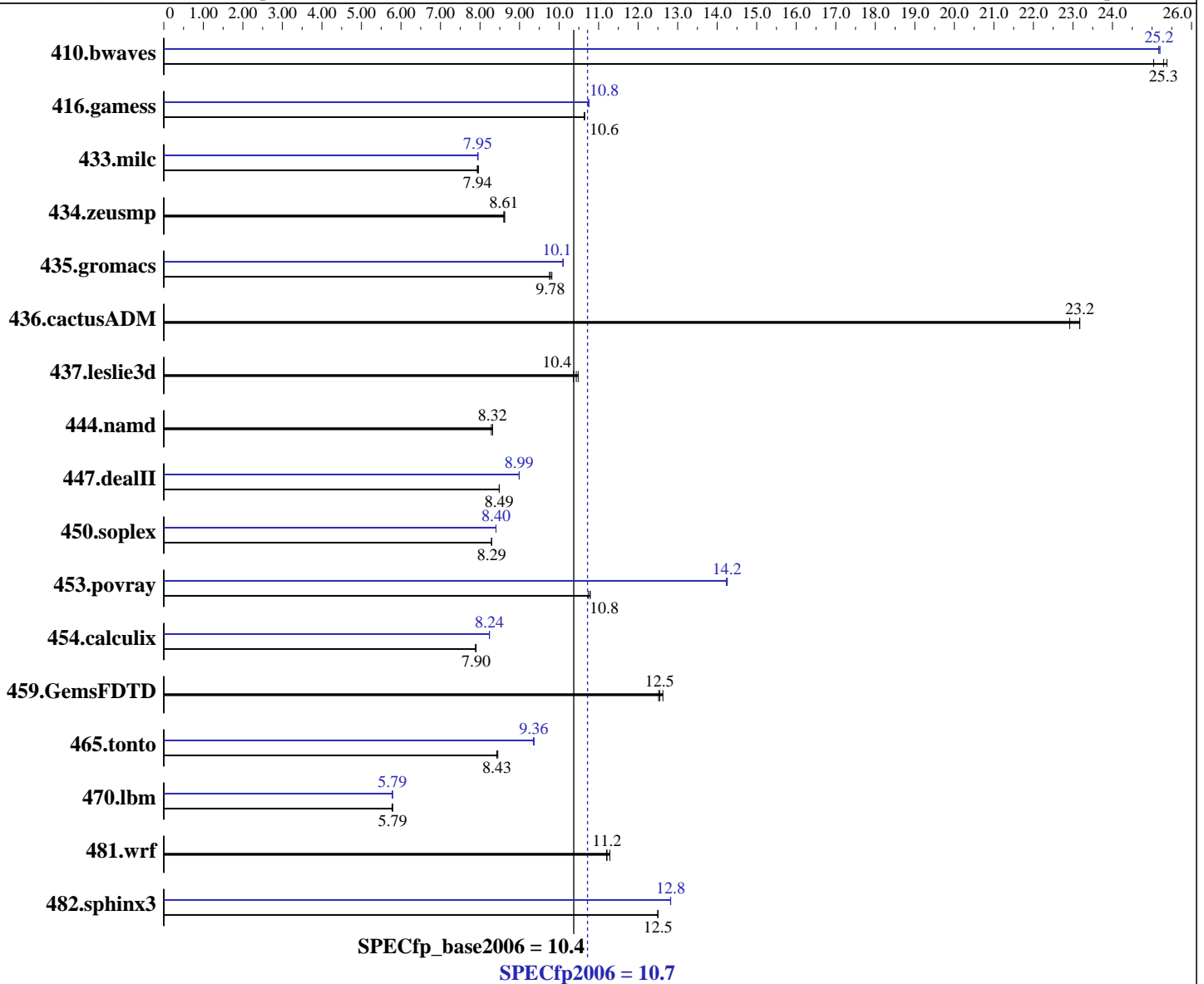
Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Nov-2007

Hardware Availability: May-2007

Software Availability: Apr-2007



Hardware

CPU Name: Intel Xeon 5110
 CPU Characteristics: 1.60 GHz, 4 MB L2, 1066 MHz bus
 CPU MHz: 1600
 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: 1x36.3 GB SAS, 15000RPM
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	<u>537</u>	<u>25.3</u>	536	25.4	543	25.0	539	25.2	540	25.2	<u>540</u>	<u>25.2</u>
416.gamess	<u>1841</u>	<u>10.6</u>	1838	10.7	1841	10.6	<u>1821</u>	<u>10.8</u>	1821	10.8	1822	10.7
433.milc	<u>1157</u>	<u>7.94</u>	1153	7.96	1157	7.93	1155	7.95	<u>1155</u>	<u>7.95</u>	1155	7.95
434.zeusmp	<u>1057</u>	<u>8.61</u>	1058	8.61	1055	8.63	<u>1057</u>	<u>8.61</u>	1058	8.61	1055	8.63
435.gromacs	<u>730</u>	<u>9.78</u>	727	9.82	732	9.76	707	10.1	707	10.1	<u>707</u>	<u>10.1</u>
436.cactusADM	516	23.2	<u>516</u>	<u>23.2</u>	521	22.9	516	23.2	<u>516</u>	<u>23.2</u>	521	22.9
437.leslie3d	897	10.5	<u>901</u>	<u>10.4</u>	907	10.4	897	10.5	<u>901</u>	<u>10.4</u>	907	10.4
444.namd	964	8.32	968	8.29	<u>964</u>	<u>8.32</u>	964	8.32	968	8.29	<u>964</u>	<u>8.32</u>
447.dealII	<u>1348</u>	<u>8.49</u>	1348	8.49	1348	8.48	1272	8.99	<u>1272</u>	<u>8.99</u>	1272	8.99
450.soplex	<u>1006</u>	<u>8.29</u>	1005	8.29	1006	8.29	<u>992</u>	<u>8.40</u>	992	8.40	992	8.40
453.povray	495	10.7	493	10.8	<u>493</u>	<u>10.8</u>	374	14.2	<u>373</u>	<u>14.2</u>	373	14.3
454.calculix	1046	7.88	1044	7.90	<u>1044</u>	<u>7.90</u>	1001	8.24	<u>1002</u>	<u>8.24</u>	1002	8.24
459.GemsFDTD	840	12.6	<u>846</u>	<u>12.5</u>	848	12.5	840	12.6	<u>846</u>	<u>12.5</u>	848	12.5
465.tonto	1164	8.45	1168	8.43	<u>1168</u>	<u>8.43</u>	1051	9.37	1053	9.35	<u>1051</u>	<u>9.36</u>
470.lbm	2380	5.77	2373	5.79	<u>2373</u>	<u>5.79</u>	2375	5.79	<u>2375</u>	<u>5.79</u>	2375	5.79
481.wrf	990	11.3	997	11.2	<u>996</u>	<u>11.2</u>	990	11.3	997	11.2	<u>996</u>	<u>11.2</u>
482.sphinx3	<u>1559</u>	<u>12.5</u>	1559	12.5	1559	12.5	1520	12.8	<u>1520</u>	<u>12.8</u>	1520	12.8

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.deallI: -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.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>

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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