



SPEC® CFP2006 Result

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NEC Corporation

Express5800/120Ri-2
(Intel Xeon processor E5345)

SPECfp®2006 = 15.1

SPECfp_base2006 = 14.6

CPU2006 license: 9006

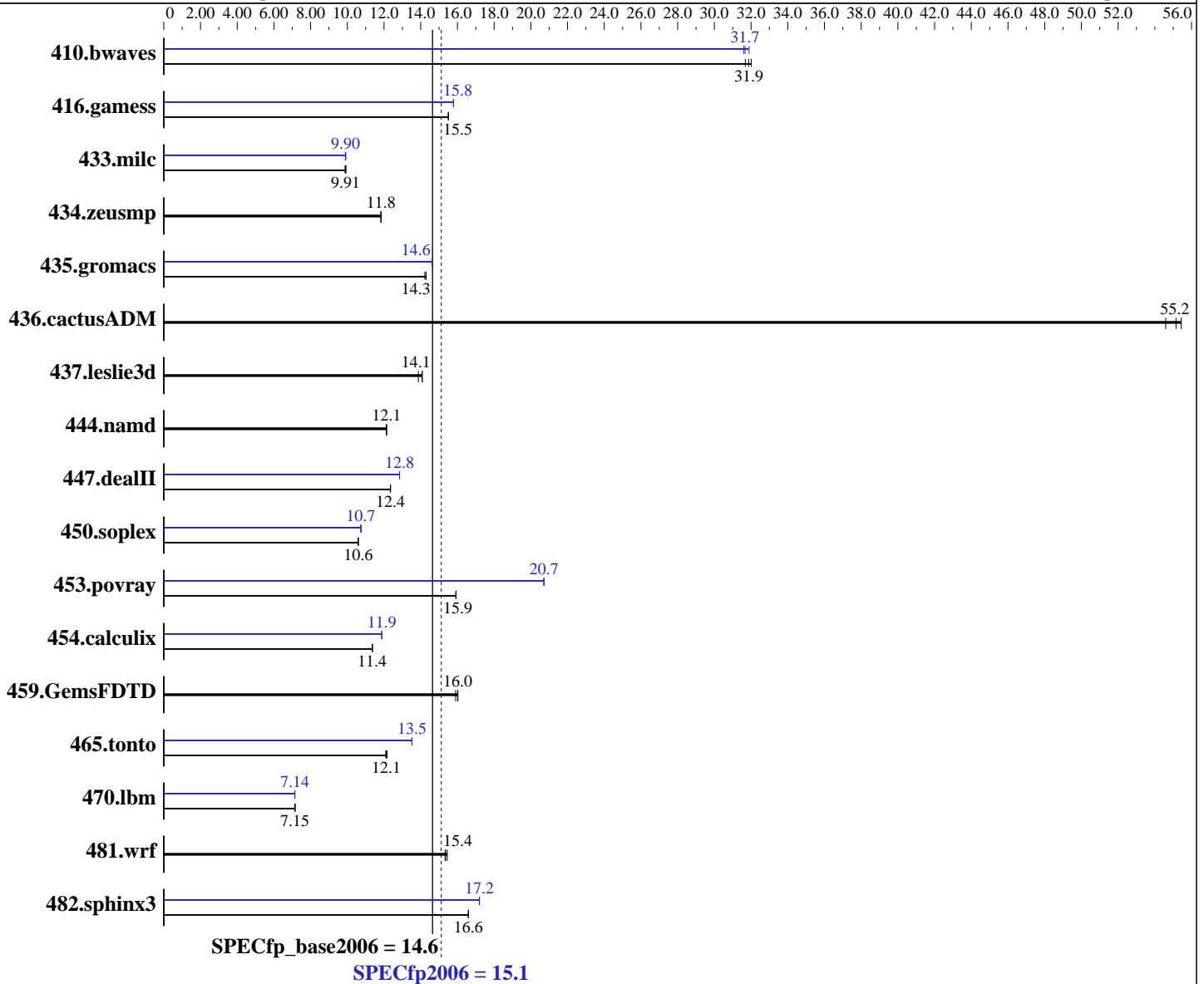
Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Jul-2007

Hardware Availability: Jan-2007

Software Availability: Apr-2007



Hardware

CPU Name: Intel Xeon E5345
 CPU Characteristics: 2.33 GHz, 2x4 MB L2 shared, 1333 MHz bus
 CPU MHz: 2333
 FPU: Integrated
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip
 CPU(s) orderable: 1,2 chips
 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

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Software

Operating System: Windows Server 2003, Standard x64 Edition
 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
 System State: Default

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L3 Cache: None
Other Cache: None
Memory: 16 GB (8x2 GB DDR2 5300F, 2 rank, CL5-5-5, ECC)
Disk Subsystem: 1x73.2 GB SAS, 15000RPM
Other Hardware: None

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	425	32.0	426	31.9	429	31.7	426	31.9	429	31.7	430	31.6
416.gamess	1262	15.5	1262	15.5	1264	15.5	1240	15.8	1240	15.8	1241	15.8
433.milc	925	9.93	926	9.91	930	9.87	927	9.90	928	9.89	925	9.92
434.zeusmp	769	11.8	769	11.8	769	11.8	769	11.8	769	11.8	769	11.8
435.gromacs	500	14.3	500	14.3	502	14.2	488	14.6	488	14.6	488	14.6
436.cactusADM	216	55.4	217	55.2	219	54.6	216	55.4	217	55.2	219	54.6
437.leslie3d	668	14.1	668	14.1	678	13.9	668	14.1	668	14.1	678	13.9
444.namd	661	12.1	661	12.1	661	12.1	661	12.1	661	12.1	661	12.1
447.dealII	926	12.3	926	12.4	926	12.4	890	12.8	891	12.8	891	12.8
450.soplex	787	10.6	787	10.6	788	10.6	777	10.7	776	10.7	776	10.7
453.povray	334	15.9	334	15.9	334	15.9	257	20.7	257	20.7	257	20.7
454.calculix	726	11.4	726	11.4	726	11.4	694	11.9	695	11.9	694	11.9
459.GemsFDTD	663	16.0	662	16.0	667	15.9	663	16.0	662	16.0	667	15.9
465.tonto	809	12.2	812	12.1	814	12.1	728	13.5	727	13.5	727	13.5
470.lbm	1921	7.15	1922	7.15	1922	7.15	1924	7.14	1924	7.14	1924	7.14
481.wrf	723	15.4	729	15.3	728	15.4	723	15.4	729	15.3	728	15.4
482.sphinx3	1174	16.6	1174	16.6	1175	16.6	1134	17.2	1133	17.2	1133	17.2

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

General Notes

The Express5800/120Rg-1(Intel Xeon processor E5345) and the Express5800/120Ri-2(Intel Xeon processor E5345) models are electronically equivalent. The results have been measured on a Express5800/120Ri-2(Intel Xeon processor E5345) model.

Base Compiler Invocation

C benchmarks:
icl -Qvc8 -Qc99

C++ benchmarks:
icl -Qvc8

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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



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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

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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-cpu2006-ic91-flags.html>

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

<http://www.spec.org/cpu2006/flags/NEC-cpu2006-ic91-flags.xml>

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For other inquiries, please contact webmaster@spec.org.

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