SPEC® CFP2006 Result

NEC Corporation

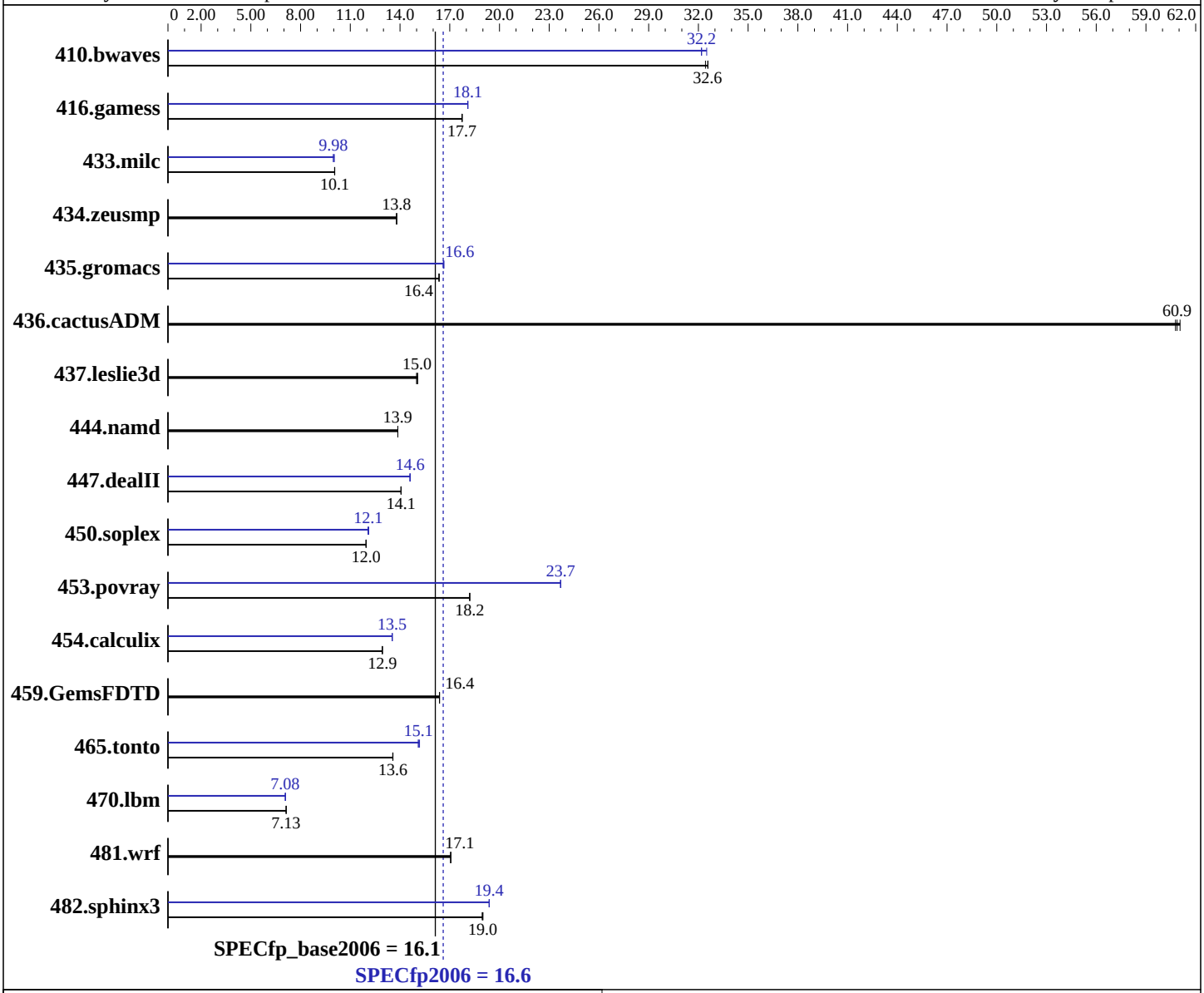
Express5800/120Bb-m6
(Intel Xeon processor X5355)

SPECfp®2006 = 16.6

SPECfp_base2006 = 16.1

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 X5355
CPU Characteristics:	2.66 GHz, 2x4 MB L2 shared, 1333 MHz bus
CPU MHz:	2666
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 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	419	32.4	**417**	**32.6**	417	32.6	418	32.5	**422**	**32.2**	422	32.2
416.gamess	1104	17.7	1103	17.7	**1103**	**17.7**	1082	18.1	1082	18.1	**1082**	**18.1**
433.milc	912	10.1	**913**	**10.1**	913	10.0	915	10.0	920	9.98	**920**	**9.98**
434.zeusmp	**660**	**13.8**	660	13.8	660	13.8	**660**	**13.8**	660	13.8	660	13.8
435.gromacs	437	16.4	437	16.4	**437**	**16.4**	429	16.7	430	16.6	**430**	**16.6**
436.cactusADM	196	61.1	197	60.8	**196**	**60.9**	196	61.1	197	60.8	**196**	**60.9**
437.leslie3d	627	15.0	624	15.1	**625**	**15.0**	627	15.0	624	15.1	**625**	**15.0**
444.namd	578	13.9	**578**	**13.9**	578	13.9	578	13.9	**578**	**13.9**	578	13.9
447.dealII	814	14.1	813	14.1	**814**	**14.1**	783	14.6	784	14.6	**783**	**14.6**
450.soplex	**698**	**12.0**	698	12.0	698	12.0	689	12.1	691	12.1	**690**	**12.1**
453.povray	292	18.2	**292**	**18.2**	292	18.2	**225**	**23.7**	225	23.7	225	23.7
454.calculix	**638**	**12.9**	638	12.9	638	12.9	609	13.5	**610**	**13.5**	610	13.5
459.GemsFDTD	648	16.4	**648**	**16.4**	647	16.4	648	16.4	**648**	**16.4**	647	16.4
465.tonto	726	13.6	725	13.6	**725**	**13.6**	648	15.2	**651**	**15.1**	651	15.1
470.lbm	1927	7.13	**1927**	**7.13**	1926	7.14	1936	7.10	1942	7.07	**1941**	**7.08**
481.wrf	655	17.1	**655**	**17.1**	655	17.1	655	17.1	**655**	**17.1**	655	17.1
482.sphinx3	1028	19.0	1026	19.0	**1026**	**19.0**	1006	19.4	1005	19.4	**1005**	**19.4**

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

General Notes

```
The system bus runs at 1333 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

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

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

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`

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

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