SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

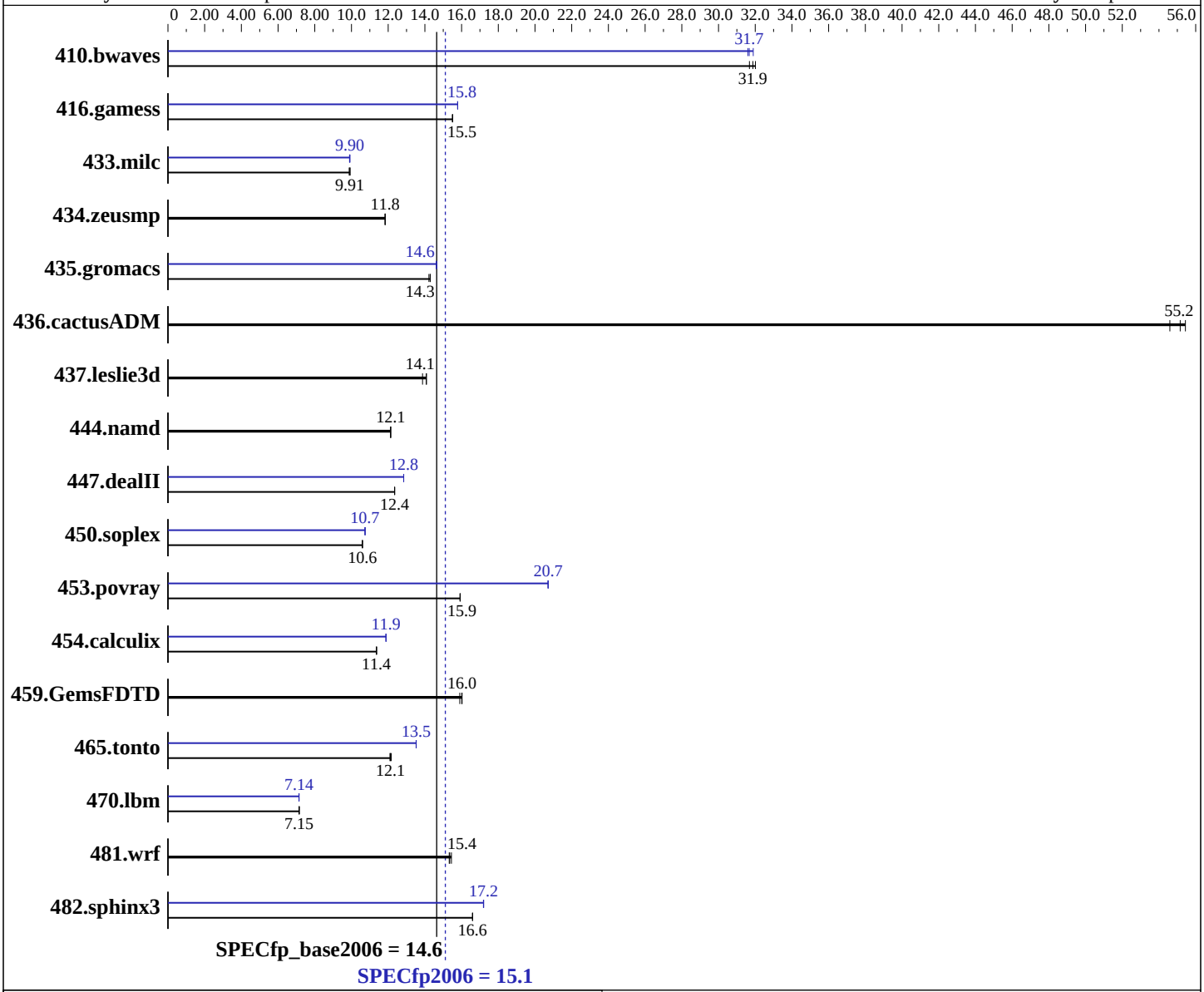
Express5800/120Rg-1
(Intel Xeon processor E5345)

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

Continued on next page

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

Continued on next page

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/120Rg-1
(Intel Xeon processor E5345)

SPECfp2006 = 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

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
```

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-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`

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.

Tested with SPEC CPU2006 v1.0.
Report generated on Tue Jul 22 13:24:10 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 24 July 2007.