SPEC® CFP2006 Result

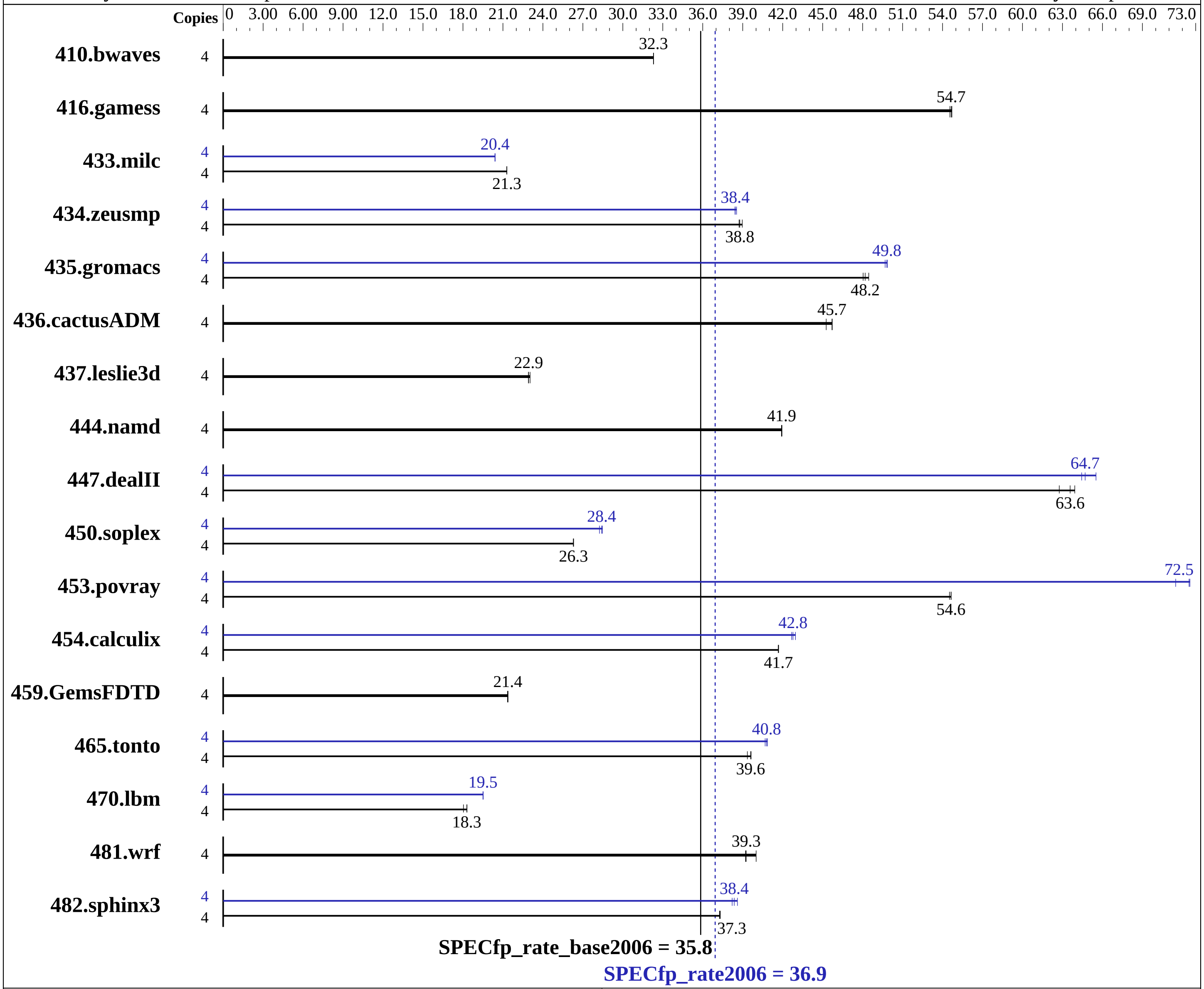
NEC Corporation

Express5800/120Ri-2
(Intel Xeon processor 5130)

SPECfp®_rate2006 = 36.9

SPECfp_rate_base2006 = 35.8

CPU2006 license:	9006	**Test date:**	Oct-2007
Test sponsor:	NEC Corporation	**Hardware Availability:**	May-2007
Tested by:	NEC Corporation	**Software Availability:**	Apr-2007



Hardware

CPU Name:	Intel Xeon 5130
CPU Characteristics:	2.00 GHz, 4 MB L2, 1333 MHz 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:	64-Bit SUSE LINUX Enterprise Server 10, Kernel 2.6.16.21-0.8-smp for x86_64
Compiler:	Intel C++ Compiler for IA32/EM64T application, Version 9.1 - Build 20070320, Package-ID: l_cc_c_9.1.049 Intel Fortran Compiler for IA32/EM64T application, Version 9.1 - Build 20070320, Package ID: l_fc_c_9.1.045
Auto Parallel:	No
File System:	ext2

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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: 1x146.5 GB SAS, 15000RPM
Other Hardware: None

System State: Multiuser, Runlevel 3
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other Software: None

Results Table

	Base							Peak						
Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	1683	32.3	1683	32.3	**1683**	**32.3**	4	1683	32.3	1683	32.3	**1683**	**32.3**
416.gamess	4	**1433**	**54.7**	1436	54.6	1432	54.7	4	**1433**	**54.7**	1436	54.6	1432	54.7
433.milc	4	1724	21.3	1724	21.3	**1724**	**21.3**	4	1800	20.4	**1799**	**20.4**	1799	20.4
434.zeusmp	4	934	39.0	**939**	**38.8**	940	38.7	4	947	38.4	**947**	**38.4**	945	38.5
435.gromacs	4	**593**	**48.2**	589	48.5	595	48.0	4	575	49.7	**573**	**49.8**	573	49.9
436.cactusADM	4	1056	45.3	**1046**	**45.7**	1045	45.7	4	1056	45.3	**1046**	**45.7**	1045	45.7
437.leslie3d	4	1632	23.0	**1640**	**22.9**	1641	22.9	4	1632	23.0	**1640**	**22.9**	1641	22.9
444.namd	4	766	41.9	**765**	**41.9**	765	41.9	4	766	41.9	**765**	**41.9**	765	41.9
447.dealII	4	**720**	**63.6**	729	62.8	716	63.9	4	**707**	**64.7**	710	64.4	698	65.5
450.soplex	4	**1269**	**26.3**	1268	26.3	1269	26.3	4	1172	28.5	**1174**	**28.4**	1181	28.2
453.povray	4	389	54.6	**390**	**54.6**	390	54.5	4	**294**	**72.5**	293	72.6	298	71.5
454.calculix	4	**792**	**41.7**	792	41.7	792	41.7	4	768	43.0	**772**	**42.8**	773	42.7
459.GemsFDTD	4	**1987**	**21.4**	1985	21.4	1988	21.3	4	**1987**	**21.4**	1985	21.4	1988	21.3
465.tonto	4	993	39.6	1000	39.3	**994**	**39.6**	4	967	40.7	963	40.9	**965**	**40.8**
470.lbm	4	**3004**	**18.3**	3047	18.0	3003	18.3	4	2816	19.5	**2817**	**19.5**	2819	19.5
481.wrf	4	1139	39.2	1117	40.0	**1138**	**39.3**	4	1139	39.2	1117	40.0	**1138**	**39.3**
482.sphinx3	4	2092	37.3	2089	37.3	**2091**	**37.3**	4	2020	38.6	**2032**	**38.4**	2040	38.2

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

Operating System Notes

```
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
'/usr/bin/taskset' used to bind processes to CPUs
```

General Notes

```
The system bus runs at 1333 MHz
All binaries were built with 64-bit Intel compiler except:
433.milc, 434.zeusmp, 450.soplex, 470.lbm and 482.sphinx3 in peak were built with
32-bit Intel compiler by changing the path for include and library files.

The Express5800/120Rg-1(Intel Xeon Prosessor 5130) and
the Express5800/120Ri-2(Intel Xeon Prosessor 5130) models are electronically equivalent.
The results have been measured on a Express5800/120Ri-2(Intel Xeon Prosessor 5130) model.
```

NEC Corporation

Express5800/120Ri-2
(Intel Xeon processor 5130)

SPECfp_rate2006 = 36.9

SPECfp_rate_base2006 = 35.8

CPU2006 license:	9006	**Test date:**	Oct-2007
Test sponsor:	NEC Corporation	**Hardware Availability:**	May-2007
Tested by:	NEC Corporation	**Software Availability:**	Apr-2007

Base Compiler Invocation

C benchmarks:
`icc`

C++ benchmarks:
`icpc`

Fortran benchmarks:
`ifort`

Benchmarks using both Fortran and C:
`icc ifort`

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
450.soplex: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
`-fast`

C++ benchmarks:
`-fast`

Fortran benchmarks:
`-fast`

Benchmarks using both Fortran and C:
`-fast`

Peak Compiler Invocation

C benchmarks:
`/opt/intel/cc/9.1.049/bin/icc -I/opt/intel/cc/9.1.049/include -L/opt/intel/cc/9.1.049/lib`

C++ benchmarks (except as noted below):
`icpc`

450.soplex: `/opt/intel/cc/9.1.049/bin/icpc -I/opt/intel/cc/9.1.049/include -L/opt/intel/cc/9.1.049/lib`

Fortran benchmarks (except as noted below):
`ifort`

434.zeusmp: `/opt/intel/fc/9.1.045/bin/ifort -I/opt/intel/fc/9.1.045/include -L/opt/intel/fc/9.1.045/lib`

Benchmarks using both Fortran and C:
`icc ifort`

Peak Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

433.milc: -prof_gen(pass 1) -prof_use(pass 2) -fast

470.lbm: Same as 433.milc

482.sphinx3: -fast

C++ benchmarks:

Continued on next page

Peak Optimization Flags (Continued)

444.namd: `basepeak = yes`

447.dealII: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast`

450.soplex: `Same as 447.dealII`

453.povray: `Same as 447.dealII`

Fortran benchmarks:

410.bwaves: `basepeak = yes`

416.gamess: `basepeak = yes`

434.zeusmp: `-fast`

437.leslie3d: `basepeak = yes`

459.GemsFDTD: `basepeak = yes`

465.tonto: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast`

Benchmarks using both Fortran and C:

435.gromacs: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast`

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-linux-flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/NEC-ic91-FP-linux-flags.xml

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

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