SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

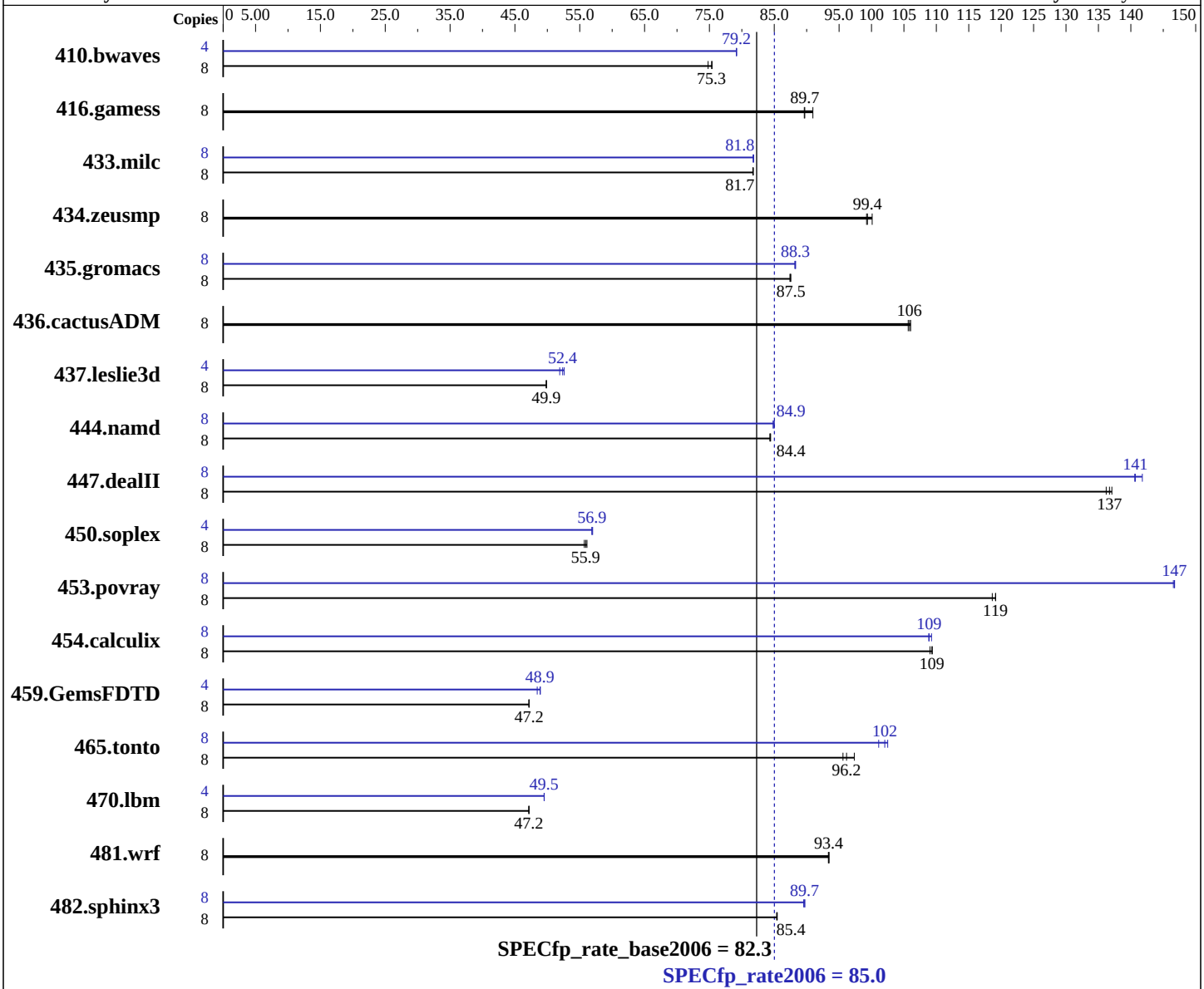
Servidor Itautec LX113 (Intel Xeon X3450)

SPECfp®_rate2006 = 85.0

SPECfp_rate_base2006 = 82.3

CPU2006 license: 9001
Test sponsor: Itautec
Tested by: Itautec

Test date: Jan-2010
Hardware Availability: Dec-2009
Software Availability: May-2009



Hardware

CPU Name:	Intel Xeon X3450
CPU Characteristics:	Intel Turbo Boost Technology up to 3.20 GHz
CPU MHz:	2667
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 4 cores/chip, 2 threads/core
CPU(s) orderable:	1 chip
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core

Continued on next page

Software

Operating System:	SUSE Linux Enterprise Server 11 (x86_64), Kernel 2.6.27.19-5-smp
Compiler:	Intel C++ and Fortran Compiler 11.1 for Linux Build 20090511 Package ID: l_cproc_p_11.1.038, l_cprof_p_11.1.038
Auto Parallel:	No
File System:	ReiserFS
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit

Continued on next page

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

Servidor Itautec LX113 (Intel Xeon X3450)

SPECfp_rate2006 = 85.0

SPECfp_rate_base2006 = 82.3

CPU2006 license: 9001
Test sponsor: Itautec
Tested by: Itautec

Test date: Jan-2010
Hardware Availability: Dec-2009
Software Availability: May-2009

L3 Cache: 8 MB I+D on chip per chip
Other Cache: None
Memory: 8 GB (4 x 2GB DDR3-1333, CL 9, ECC)
Disk Subsystem: 1 x 160 GB SATA-2, 7200RPM
Other Hardware: None

Peak Pointers: 32/64-bit
Other Software: Binutils 2.18.50.0.7.20080502

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	1454	74.8	**1443**	**75.3**	1442	75.4	4	686	79.2	**687**	**79.2**	687	79.2
416.gamess	8	1722	91.0	**1746**	**89.7**	1748	89.6	8	1722	91.0	**1746**	**89.7**	1748	89.6
433.milc	8	898	81.8	899	81.7	**899**	**81.7**	8	898	81.8	898	81.8	**898**	**81.8**
434.zeusmp	8	727	100	734	99.2	**733**	**99.4**	8	727	100	734	99.2	**733**	**99.4**
435.gromacs	8	653	87.4	652	87.6	**653**	**87.5**	8	**647**	**88.3**	647	88.3	648	88.2
436.cactusADM	8	**903**	**106**	902	106	905	106	8	**903**	**106**	902	106	905	106
437.leslie3d	8	1509	49.8	**1509**	**49.9**	1508	49.9	4	**718**	**52.4**	724	51.9	715	52.6
444.namd	8	760	84.4	**760**	**84.4**	761	84.3	8	755	85.0	**756**	**84.9**	756	84.8
447.dealII	8	**669**	**137**	672	136	668	137	8	646	142	**650**	**141**	651	141
450.soplex	8	**1193**	**55.9**	1189	56.1	1198	55.7	4	587	56.9	585	57.0	**586**	**56.9**
453.povray	8	359	119	357	119	**357**	**119**	8	**290**	**147**	290	147	290	147
454.calculix	8	603	109	**604**	**109**	605	109	8	604	109	606	109	**606**	**109**
459.GemsFDTD	8	1800	47.2	1799	47.2	**1799**	**47.2**	4	867	48.9	876	48.4	**868**	**48.9**
465.tonto	8	823	95.6	**819**	**96.2**	809	97.3	8	779	101	768	103	**771**	**102**
470.lbm	8	2330	47.2	**2331**	**47.2**	2331	47.2	4	1110	49.5	1110	49.5	**1110**	**49.5**
481.wrf	8	957	93.3	**957**	**93.4**	956	93.5	8	957	93.3	**957**	**93.4**	956	93.5
482.sphinx3	8	1824	85.5	1826	85.4	**1825**	**85.4**	8	1741	89.5	**1738**	**89.7**	1738	89.7

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

Submit Notes

```
The config file option 'submit' was used.
 numactl was used to bind copies to the cores
```

Operating System Notes

```
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run.
```

General Notes

```
This result was measured on the Servidor Itautec LX103.
The Servidor Itautec LX113, the Servidor Itautec LX114 and the Servidor Itautec LX103
are electronically equivalent.
```

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:
-xSSE4.2 -ipo -O3 -no-prec-div -static

C++ benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -static

Fortran benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -static

Benchmarks using both Fortran and C:
-xSSE4.2 -ipo -O3 -no-prec-div -static

Peak Compiler Invocation

C benchmarks (except as noted below):
icc

482.sphinx3: icc -m32

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

450.soplex: icpc -m64

Fortran benchmarks (except as noted below):
ifort

437.leslie3d: ifort -m32

Benchmarks using both Fortran and C:
icc ifort

Peak 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
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
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

433.milc: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2) -fno-alias

470.lbm: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch -auto-ilp32

Continued on next page

Peak Optimization Flags (Continued)

482.sphinx3: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2

C++ benchmarks:

444.namd: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2) -fno-alias -auto-ilp32

447.dealII: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2) -unroll2 -ansi-alias -scalar-rep-

450.soplex: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2) -opt-malloc-options=3

453.povray: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2) -unroll4 -ansi-alias

Fortran benchmarks:

410.bwaves: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

437.leslie3d: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2) -opt-malloc-options=3 -opt-prefetch

459.GemsFDTD: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2) -unroll2 -Ob0 -opt-prefetch

465.tonto: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2) -unroll4 -auto

Benchmarks using both Fortran and C:

435.gromacs: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2) -opt-prefetch -auto-ilp32

436.cactusADM: basepeak = yes

454.calculix: -xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32

Continued on next page

Peak Optimization Flags (Continued)

481.wrf: `basepeak = yes`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Itautec-Intel-ic11.1-fp-linux64-revI.20100202.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Itautec-Intel-ic11.1-fp-linux64-revI.20100202.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 v1.1.
Report generated on Wed Jul 23 05:55:18 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 2 February 2010.