SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

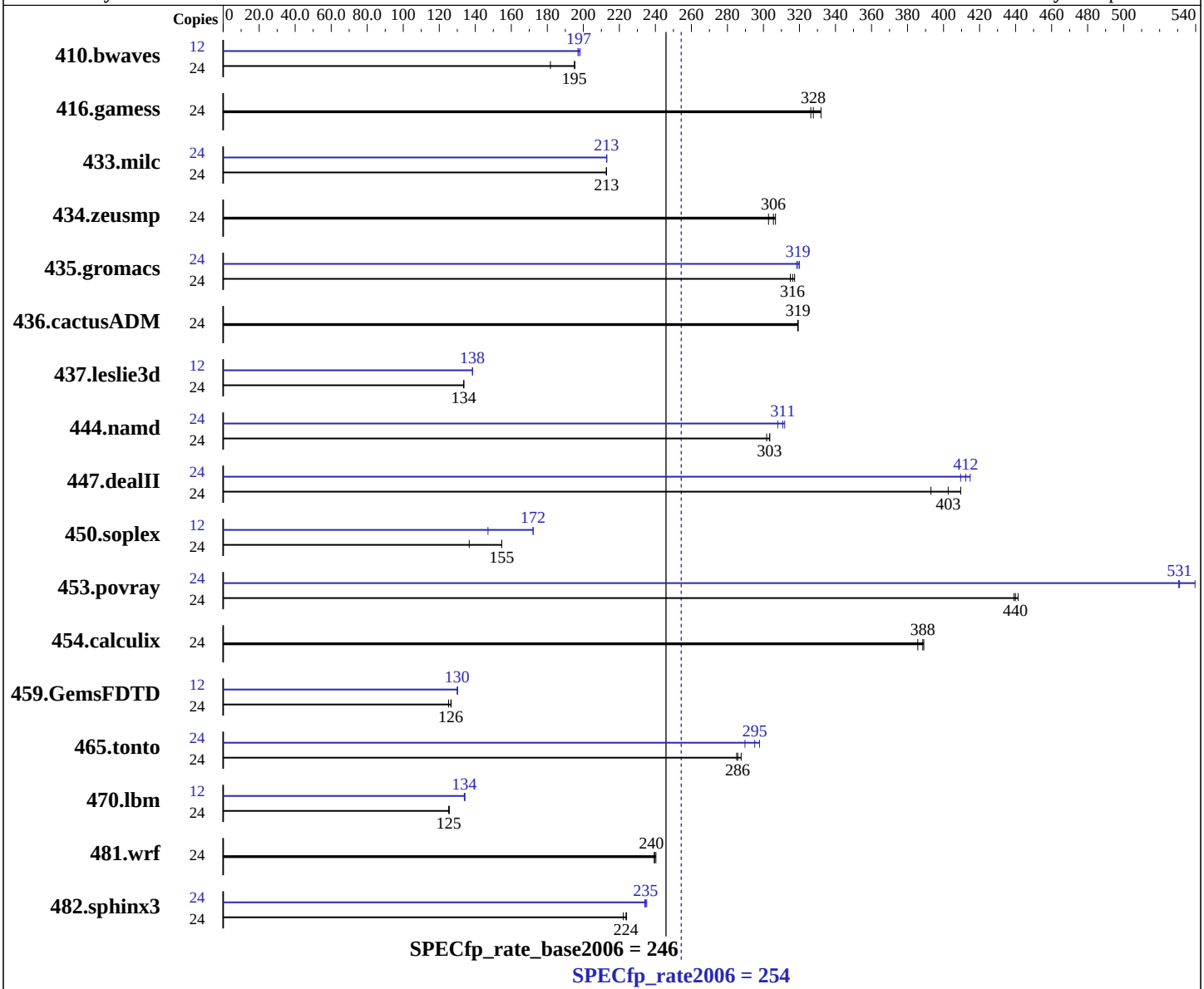
Servidor Itautec MX203 (Intel Xeon X5680)

SPECfp®_rate2006 = 254

SPECfp_rate_base2006 = 246

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

Test date: Aug-2010
Hardware Availability: Apr-2010
Software Availability: Apr-2010



Hardware

CPU Name:	Intel Xeon X5680
CPU Characteristics:	Intel Turbo Boost Technology up to 3.60 GHz
CPU MHz:	3333
FPU:	Integrated
CPU(s) enabled:	12 cores, 2 chips, 6 cores/chip, 2 threads/core
CPU(s) orderable:	1, 2 chips
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 Professional Compiler 11.1 for Linux Build 20100414 Package ID: l_cproc_p_11.1.072, l_cprof_p_11.1.072
Auto Parallel:	No
File System:	ReiserFS
System State:	Run level 3 (multi-user)

Continued on next page

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

Servidor Itautec MX203 (Intel Xeon X5680)

SPECfp_rate2006 = 254

SPECfp_rate_base2006 = 246

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

Test date: Aug-2010
Hardware Availability: Apr-2010
Software Availability: Apr-2010

L3 Cache: 12 MB I+D on chip per chip
Other Cache: None
Memory: 48 GB (12 x 4GB, DDR3-1333, Dual Rank, CL 9, ECC)
Disk Subsystem: 1 x 160 GB SATA-2, 7200 RPM
Other Hardware: None

Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other Software: None

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	24	1795	182	1670	195	**1672**	**195**	12	**826**	**197**	822	198	828	197
416.gamess	24	1416	332	1440	326	**1434**	**328**	24	1416	332	1440	326	**1434**	**328**
433.milc	24	**1035**	**213**	1035	213	1035	213	24	1035	213	1034	213	**1035**	**213**
434.zeusmp	24	**715**	**306**	721	303	712	307	24	**715**	**306**	721	303	712	307
435.gromacs	24	540	317	**542**	**316**	544	315	24	538	318	535	320	**537**	**319**
436.cactusADM	24	**899**	**319**	898	319	899	319	24	**899**	**319**	898	319	899	319
437.leslie3d	24	**1689**	**134**	1689	134	1689	134	12	814	139	**815**	**138**	815	138
444.namd	24	634	303	**634**	**303**	638	302	24	625	308	**619**	**311**	617	312
447.dealII	24	**682**	**403**	670	410	699	393	24	671	409	662	415	**666**	**412**
450.soplex	24	1465	137	1294	155	**1294**	**155**	12	681	147	581	172	**582**	**172**
453.povray	24	291	439	289	441	**290**	**440**	24	241	531	237	540	**240**	**531**
454.calculix	24	**510**	**388**	513	386	509	389	24	**510**	**388**	513	386	509	389
459.GemsFDTD	24	2034	125	**2014**	**126**	2011	127	12	**979**	**130**	979	130	978	130
465.tonto	24	**826**	**286**	821	288	828	285	24	793	298	**800**	**295**	815	290
470.lbm	24	2627	126	**2631**	**125**	2632	125	12	1228	134	1231	134	**1231**	**134**
481.wrf	24	1116	240	1120	239	**1119**	**240**	24	1116	240	1120	239	**1119**	**240**
482.sphinx3	24	2106	222	2088	224	**2091**	**224**	24	1998	234	**1993**	**235**	1989	235

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 MX223.
The Servidor Itautec MX223 and the Servidor Itautec MX203 are electronically equivalent.
```

Base Compiler Invocation

C benchmarks:
```
icc   -m64
```

C++ benchmarks:
```
icpc  -m64
```

Fortran benchmarks:
```
ifort -m64
```

Benchmarks using both Fortran and C:
```
icc   -m64 ifort -m64
```

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 -m64

482.sphinx3: icc -m32

C++ benchmarks (except as noted below):
icpc -m64

450.soplex: icpc -m32

Fortran benchmarks:
ifort -m64

Benchmarks using both Fortran and C:
icc -m64 ifort -m64

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
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
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 -opt-prefetch

470.lbm: -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 -ansi-alias -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 -ipo -O3 -no-prec-div -static

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

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 -inline-calloc -opt-malloc-options=3

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: basepeak = yes

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-linux64-revE.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Itautec-Intel-ic11.1-linux64-revE.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 12:08:03 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 31 August 2010.