



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itaotec

SPECfp®\_rate2006 = 278

Servidor Itaotec MX203 (Intel Xeon X5690)

SPECfp\_rate\_base2006 = 271

CPU2006 license: 9001

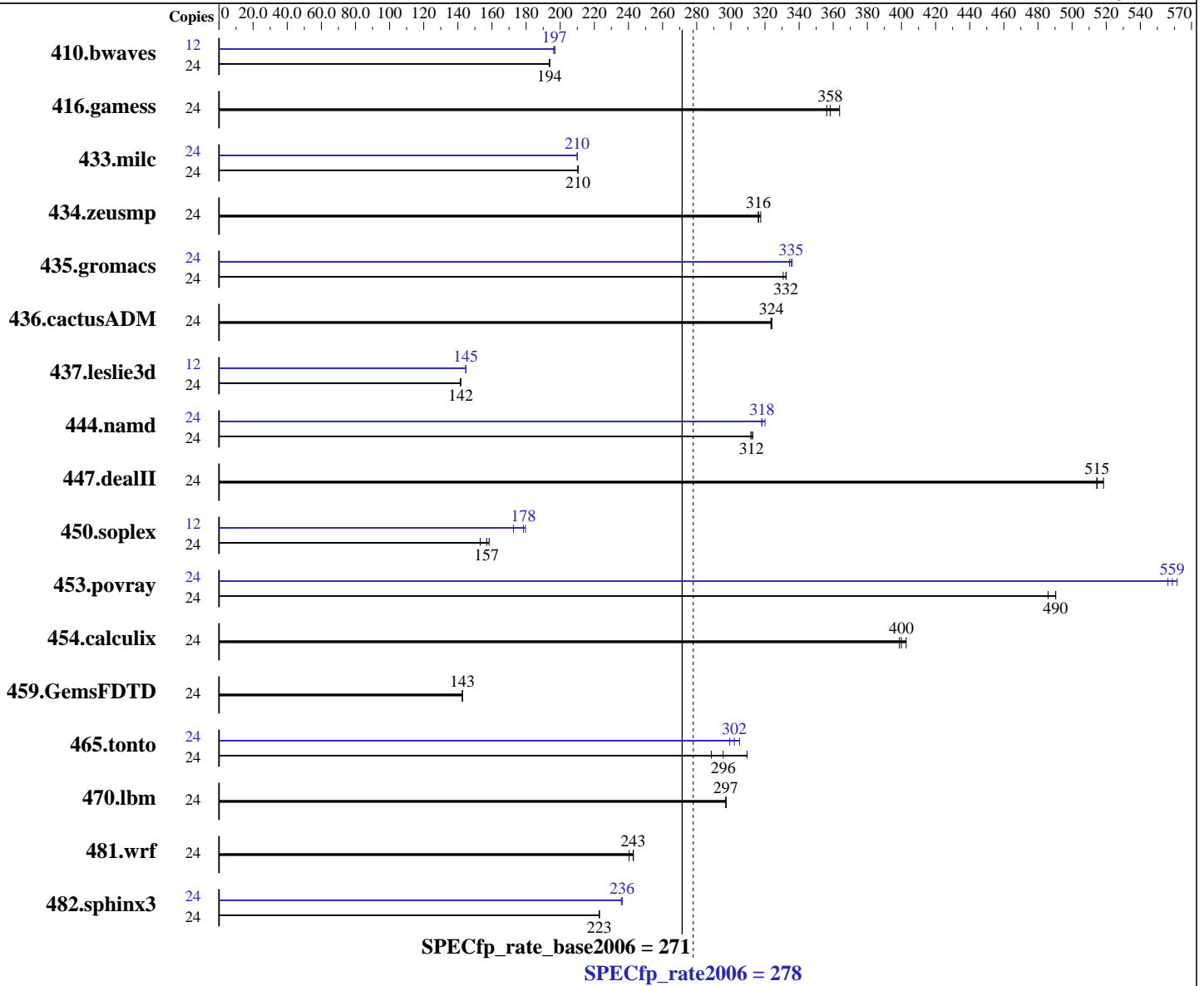
Test date: Dec-2011

Test sponsor: Itaotec

Hardware Availability: Jul-2011

Tested by: Itaotec

Software Availability: Aug-2011



### Hardware

CPU Name: Intel Xeon X5690  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.73 GHz  
 CPU MHz: 3467  
 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 SP1 (x86\_64), Kernel 2.6.32.12-0.7-default  
 Compiler: C/C++/Fortran: Version 12.1.0 of Intel Compiler XE Build 20110811  
 Auto Parallel: No  
 File System: ext3  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: 32/64-bit

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itaotec

SPECfp\_rate2006 = 278

Servidor Itaotec MX203 (Intel Xeon X5690)

SPECfp\_rate\_base2006 = 271

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

Test date: Dec-2011  
Hardware Availability: Jul-2011  
Software Availability: Aug-2011

L3 Cache: 12 MB I+D on chip per chip  
Other Cache: None  
Memory: 48 GB (12 x 4 GB 2Rx4 PC3-10600R-9, ECC)  
Disk Subsystem: 1 x 500 GB SAS, 15000 RPM  
Other Hardware: None

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	1682	194	<b><u>1683</u></b>	<b><u>194</u></b>	1685	194	12	828	197	<b><u>829</u></b>	<b><u>197</u></b>	832	196		
416.gamess	24	1319	356	<b><u>1312</u></b>	<b><u>358</u></b>	1292	364	24	1319	356	<b><u>1312</u></b>	<b><u>358</u></b>	1292	364		
433.milc	24	<b><u>1047</u></b>	<b><u>210</u></b>	1047	210	1047	210	24	1049	210	<b><u>1049</u></b>	<b><u>210</u></b>	1049	210		
434.zeusmp	24	691	316	688	318	<b><u>691</u></b>	<b><u>316</u></b>	24	691	316	688	318	<b><u>691</u></b>	<b><u>316</u></b>		
435.gromacs	24	<b><u>516</u></b>	<b><u>332</u></b>	518	331	515	332	24	512	334	510	336	<b><u>511</u></b>	<b><u>335</u></b>		
436.cactusADM	24	887	323	<b><u>886</u></b>	<b><u>324</u></b>	885	324	24	887	323	<b><u>886</u></b>	<b><u>324</u></b>	885	324		
437.leslie3d	24	1595	141	1592	142	<b><u>1593</u></b>	<b><u>142</u></b>	12	<b><u>779</u></b>	<b><u>145</u></b>	780	145	779	145		
444.namd	24	<b><u>617</u></b>	<b><u>312</u></b>	615	313	618	312	24	<b><u>605</u></b>	<b><u>318</u></b>	605	318	601	320		
447.dealII	24	534	514	<b><u>533</u></b>	<b><u>515</u></b>	530	518	24	534	514	<b><u>533</u></b>	<b><u>515</u></b>	530	518		
450.soplex	24	1307	153	<b><u>1276</u></b>	<b><u>157</u></b>	1264	158	12	580	173	<b><u>561</u></b>	<b><u>178</u></b>	557	180		
453.povray	24	<b><u>260</u></b>	<b><u>490</u></b>	260	490	263	486	24	230	556	227	562	<b><u>229</u></b>	<b><u>559</u></b>		
454.calculix	24	492	403	496	399	<b><u>495</u></b>	<b><u>400</u></b>	24	492	403	496	399	<b><u>495</u></b>	<b><u>400</u></b>		
459.GemsFDTD	24	1786	143	<b><u>1785</u></b>	<b><u>143</u></b>	1784	143	24	1786	143	<b><u>1785</u></b>	<b><u>143</u></b>	1784	143		
465.tonto	24	818	289	<b><u>799</u></b>	<b><u>296</u></b>	763	310	24	774	305	<b><u>782</u></b>	<b><u>302</u></b>	789	299		
470.lbm	24	1109	297	1110	297	<b><u>1110</u></b>	<b><u>297</u></b>	24	1109	297	1110	297	<b><u>1110</u></b>	<b><u>297</u></b>		
481.wrf	24	1104	243	<b><u>1104</u></b>	<b><u>243</u></b>	1115	240	24	1104	243	<b><u>1104</u></b>	<b><u>243</u></b>	1115	240		
482.sphinx3	24	2099	223	<b><u>2099</u></b>	<b><u>223</u></b>	2098	223	24	1980	236	<b><u>1980</u></b>	<b><u>236</u></b>	1983	236		

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.  
Large pages were not enabled for this run

## Platform Notes

Data Reuse disabled in BIOS.



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECfp\_rate2006 = 278

Servidor Itautec MX203 (Intel Xeon X5690)

SPECfp\_rate\_base2006 = 271

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

Test date: Dec-2011  
Hardware Availability: Jul-2011  
Software Availability: Aug-2011

## General Notes

This result was measured on the Servidor Itautec MX223.  
The Servidor Itautec MX203 and the Servidor Itautec MX223  
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 -ansi-alias

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

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itaotec

SPECfp\_rate2006 = 278

Servidor Itaotec MX203 (Intel Xeon X5690)

SPECfp\_rate\_base2006 = 271

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

Test date: Dec-2011  
Hardware Availability: Jul-2011  
Software Availability: Aug-2011

## Base Optimization Flags (Continued)

Fortran benchmarks:

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

Benchmarks using both Fortran and C:

-xSSE4.2 -ipo -O3 -no-prec-div -static -ansi-alias

## 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



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itaotec

SPECfp\_rate2006 = 278

Servidor Itaotec MX203 (Intel Xeon X5690)

SPECfp\_rate\_base2006 = 271

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

Test date: Dec-2011  
Hardware Availability: Jul-2011  
Software Availability: Aug-2011

## 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) -prof-use(pass 2) -static -auto-ilp32

470.lbm: basepeak = yes

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

### C++ benchmarks:

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

447.dealII: basepeak = yes

450.soplex: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -opt-malloc-options=3  
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

453.povray: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -ansi-alias  
-B /usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT

### Fortran benchmarks:

410.bwaves: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -static

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

437.leslie3d: -xSSE4.2 -ipo -O3 -no-prec-div  
-B /usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT

459.GemsFDTD: basepeak = yes

465.tonto: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -auto  
-inline-calloc -opt-malloc-options=3  
-B /usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT

### 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) -prof-use(pass 2) -opt-prefetch  
-static -auto-ilp32

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECfp\_rate2006 = 278

Servidor Itautec MX203 (Intel Xeon X5690)

SPECfp\_rate\_base2006 = 271

CPU2006 license: 9001

Test date: Dec-2011

Test sponsor: Itautec

Hardware Availability: Jul-2011

Tested by: Itautec

Software Availability: Aug-2011

## Peak Optimization Flags (Continued)

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Itautec-Intel-Linux64-Platform.html>

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-linux64.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Itautec-Intel-Linux64-Platform.xml>

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-linux64.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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.1.  
Report generated on Thu Jul 24 03:15:25 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 3 January 2012.