



# SPEC<sup>®</sup> CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Itaotec

### SPECfp<sup>®</sup>\_rate2006 = 162

### Servidor Itaotec MX203 (Intel Xeon E5520)

### SPECfp\_rate\_base2006 = 157

CPU2006 license: 9001

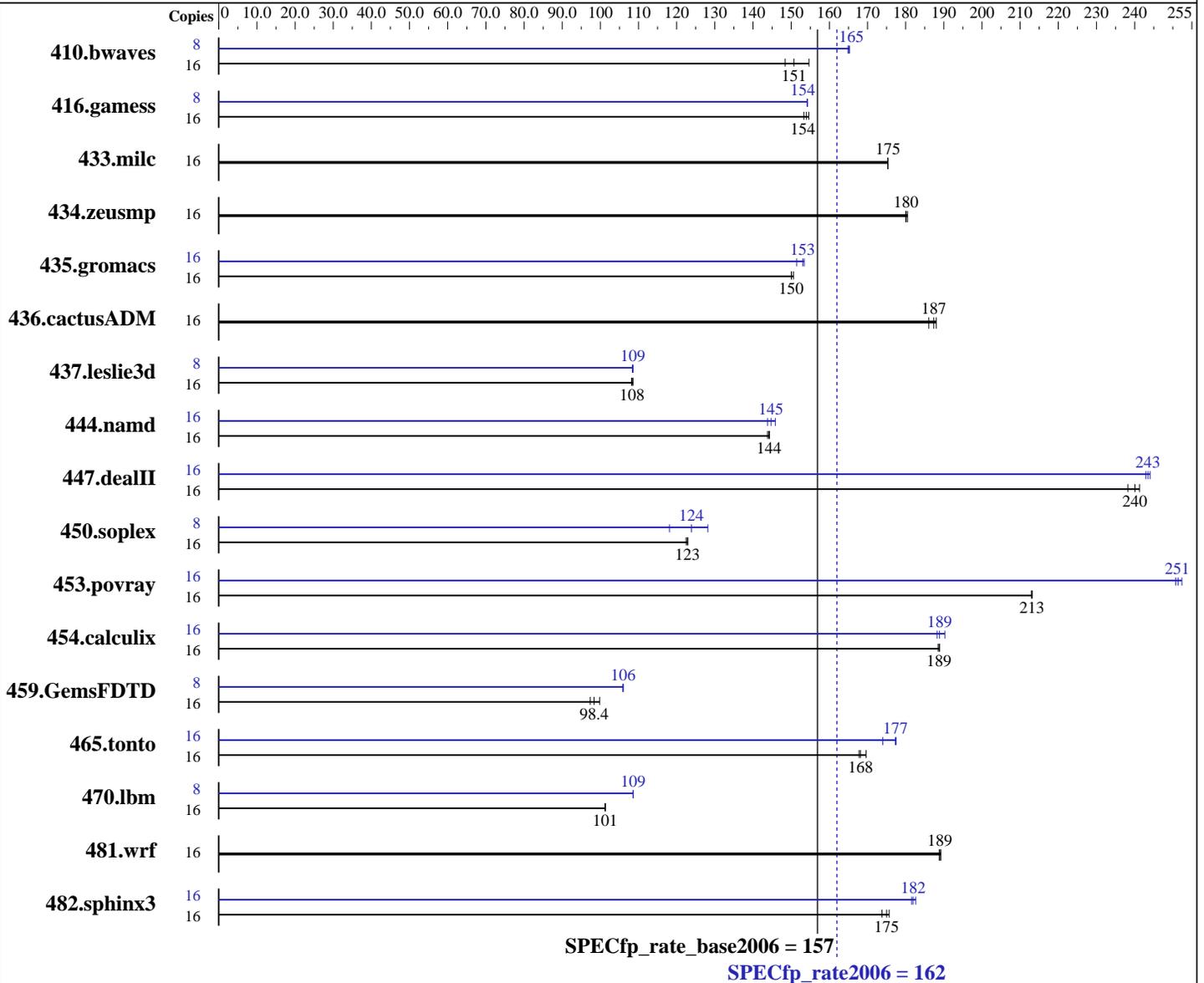
Test date: Mar-2010

Test sponsor: Itaotec

Hardware Availability: Mar-2009

Tested by: Itaotec

Software Availability: Feb-2009



#### Hardware

CPU Name: Intel Xeon E5520  
 CPU Characteristics: Intel Turbo Boost Technology up to 2.53 GHz  
 CPU MHz: 2267  
 FPU: Integrated  
 CPU(s) enabled: 8 cores, 2 chips, 4 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 10 (x86\_64) SP2 with patch Linux kernel 20090119, Kernel 2.6.16.60-0.34-smp  
 Compiler: Intel C++ and Fortran Compiler 11.0 for Linux Build 20090131 Package ID: l\_cproc\_p\_11.0.081, l\_cprof\_p\_11.0.081  
 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

SPECfp\_rate2006 = 162

Servidor Itautec MX203 (Intel Xeon E5520)

SPECfp\_rate\_base2006 = 157

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

Test date: Mar-2010  
Hardware Availability: Mar-2009  
Software Availability: Feb-2009

L3 Cache: 8 MB I+D on chip per chip  
Other Cache: None  
Memory: 24 GB (12 x 2GB DDR3-1066, CL 7, ECC)  
Disk Subsystem: 1 x 160 GB SATA-2, 7200RPM  
Other Hardware: None

Base Pointers: 64-bit  
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    | 16     | 1406        | 155        | <u>1443</u> | <u>151</u>  | 1465        | 148        | 8      | 659         | 165        | 658         | 165        | <u>659</u> | <u>165</u> |
| 416.gamess    | 16     | 2026        | 155        | 2043        | 153         | <u>2034</u> | <u>154</u> | 8      | <u>1016</u> | <u>154</u> | 1015        | 154        | 1016       | 154        |
| 433.milc      | 16     | 838         | 175        | <u>838</u>  | <u>175</u>  | 838         | 175        | 16     | 838         | 175        | <u>838</u>  | <u>175</u> | 838        | 175        |
| 434.zeusmp    | 16     | <u>808</u>  | <u>180</u> | 807         | 180         | 809         | 180        | 16     | <u>808</u>  | <u>180</u> | 807         | 180        | 809        | 180        |
| 435.gromacs   | 16     | 759         | 151        | <u>761</u>  | <u>150</u>  | 761         | 150        | 16     | <u>747</u>  | <u>153</u> | 745         | 153        | 754        | 151        |
| 436.cactusADM | 16     | 1028        | 186        | <u>1020</u> | <u>187</u>  | 1017        | 188        | 16     | 1028        | 186        | <u>1020</u> | <u>187</u> | 1017       | 188        |
| 437.leslie3d  | 16     | <u>1388</u> | <u>108</u> | 1386        | 109         | 1391        | 108        | 8      | <u>693</u>  | <u>109</u> | 693         | 109        | 694        | 108        |
| 444.namd      | 16     | 892         | 144        | 889         | 144         | <u>890</u>  | <u>144</u> | 16     | <u>887</u>  | <u>145</u> | 880         | 146        | 892        | 144        |
| 447.dealII    | 16     | 759         | 241        | 768         | 238         | <u>762</u>  | <u>240</u> | 16     | <u>752</u>  | <u>243</u> | 750         | 244        | 753        | 243        |
| 450.soplex    | 16     | 1086        | 123        | <u>1086</u> | <u>123</u>  | 1090        | 122        | 8      | 565         | 118        | <u>539</u>  | <u>124</u> | 521        | 128        |
| 453.povray    | 16     | 399         | 213        | <u>399</u>  | <u>213</u>  | 400         | 213        | 16     | 339         | 251        | 337         | 252        | <u>339</u> | <u>251</u> |
| 454.calculix  | 16     | 700         | 189        | <u>699</u>  | <u>189</u>  | 699         | 189        | 16     | 694         | 190        | <u>699</u>  | <u>189</u> | 701        | 188        |
| 459.GemsFDTD  | 16     | 1701        | 99.8       | <u>1726</u> | <u>98.4</u> | 1744        | 97.3       | 8      | <u>801</u>  | <u>106</u> | 802         | 106        | 800        | 106        |
| 465.tonto     | 16     | <u>936</u>  | <u>168</u> | 928         | 170         | 938         | 168        | 16     | 905         | 174        | 887         | 178        | <u>888</u> | <u>177</u> |
| 470.lbm       | 16     | 2170        | 101        | <u>2172</u> | <u>101</u>  | 2172        | 101        | 8      | 1013        | 109        | <u>1012</u> | <u>109</u> | 1012       | 109        |
| 481.wrf       | 16     | <u>946</u>  | <u>189</u> | 947         | 189         | 945         | 189        | 16     | <u>946</u>  | <u>189</u> | 947         | 189        | 945        | 189        |
| 482.sphinx3   | 16     | 1794        | 174        | <u>1782</u> | <u>175</u>  | 1775        | 176        | 16     | 1718        | 182        | <u>1714</u> | <u>182</u> | 1707       | 183        |

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



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECfp\_rate2006 = 162

Servidor Itautec MX203 (Intel Xeon E5520)

SPECfp\_rate\_base2006 = 157

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

Test date: Mar-2010  
Hardware Availability: Mar-2009  
Software Availability: Feb-2009

## 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



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECfp\_rate2006 = 162

Servidor Itautec MX203 (Intel Xeon E5520)

SPECfp\_rate\_base2006 = 157

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

Test date: Mar-2010  
Hardware Availability: Mar-2009  
Software Availability: Feb-2009

## Peak Compiler Invocation

C benchmarks (except as noted below):

icc

482.sphinx3: icc -m32

C++ benchmarks (except as noted below):

icpc

450.soplex: icpc -m32

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: basepeak = yes

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

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

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECfp\_rate2006 = 162

Servidor Itautec MX203 (Intel Xeon E5520)

SPECfp\_rate\_base2006 = 157

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

Test date: Mar-2010  
Hardware Availability: Mar-2009  
Software Availability: Feb-2009

## Peak Optimization Flags (Continued)

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.dealIII: -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: -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 -ansi-alias -scalar-rep-  
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



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECfp\_rate2006 = 162

Servidor Itautec MX203 (Intel Xeon E5520)

SPECfp\_rate\_base2006 = 157

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

Test date: Mar-2010  
Hardware Availability: Mar-2009  
Software Availability: Feb-2009

## 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-ic11.0-fp-linux64-revI.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Itautec-Intel-ic11.0-fp-linux64-revI.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 Wed Jul 23 05:27:40 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 30 March 2010.