



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECfp[®]_rate2006 = 97.8

Servidor Itautec MX214 (Intel Xeon E5640)

SPECfp_rate_base2006 = 95.3

CPU2006 license: 9001

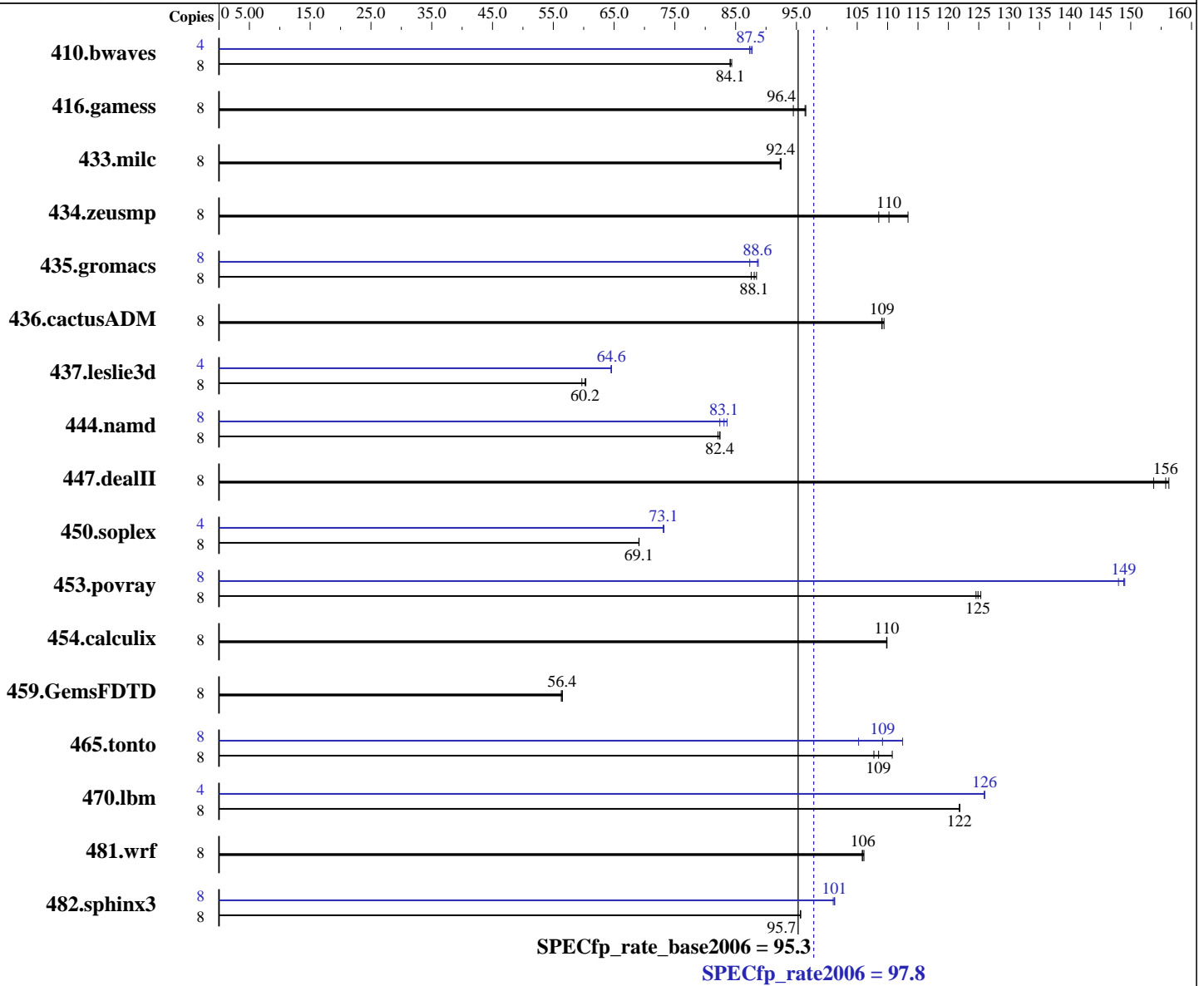
Test sponsor: Itautec

Tested by: Itautec

Test date: Jul-2011

Hardware Availability: Apr-2011

Software Availability: Jan-2011



Hardware

CPU Name: Intel Xeon E5640
 CPU Characteristics: Intel Turbo Boost Technology up to 2.93 GHz
 CPU MHz: 2667
 FPU: Integrated
 CPU(s) enabled: 4 cores, 1 chip, 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 11 SP1 (x86_64), Kernel 2.6.32.12-0.7-default
 Compiler: Intel C++ and Fortran Intel 64 Compiler XE for applications running on Intel 64 Version 12.0.2 Build 20110112
 Auto Parallel: No
 File System: ext3
 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

Itaotec

SPECfp_rate2006 = 97.8

Servidor Itaotec MX214 (Intel Xeon E5640)

SPECfp_rate_base2006 = 95.3

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

Test date: Jul-2011
Hardware Availability: Apr-2011
Software Availability: Jan-2011

L3 Cache: 12 MB I+D on chip per chip
Other Cache: None
Memory: 24 GB (6 x 4 GB 2Rx4 PC3-8500R-7, ECC)
Disk Subsystem: 1 x 500 GB SATA-2, 7200 RPM
Other Hardware: None

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	8	1289	84.3	<u>1293</u>	<u>84.1</u>	1293	84.1	4	620	87.7	<u>621</u>	<u>87.5</u>	623	87.3
416.gamess	8	1622	96.5	<u>1625</u>	<u>96.4</u>	1658	94.5	8	1622	96.5	<u>1625</u>	<u>96.4</u>	1658	94.5
433.milc	8	794	92.5	<u>795</u>	<u>92.4</u>	796	92.3	8	794	92.5	<u>795</u>	<u>92.4</u>	796	92.3
434.zeusmp	8	642	113	671	109	<u>660</u>	<u>110</u>	8	642	113	671	109	<u>660</u>	<u>110</u>
435.gromacs	8	<u>649</u>	<u>88.1</u>	646	88.4	652	87.6	8	<u>645</u>	<u>88.6</u>	654	87.3	644	88.7
436.cactusADM	8	877	109	874	109	<u>876</u>	<u>109</u>	8	877	109	874	109	<u>876</u>	<u>109</u>
437.leslie3d	8	<u>1248</u>	<u>60.2</u>	1246	60.4	1260	59.7	4	583	64.5	582	64.6	<u>582</u>	<u>64.6</u>
444.namd	8	<u>779</u>	<u>82.4</u>	782	82.1	778	82.4	8	<u>772</u>	<u>83.1</u>	779	82.4	768	83.6
447.dealII	8	595	154	<u>588</u>	<u>156</u>	586	156	8	595	154	<u>588</u>	<u>156</u>	586	156
450.soplex	8	965	69.1	<u>966</u>	<u>69.1</u>	966	69.1	4	<u>456</u>	<u>73.1</u>	456	73.2	456	73.1
453.povray	8	340	125	<u>341</u>	<u>125</u>	342	125	8	<u>286</u>	<u>149</u>	288	148	286	149
454.calculix	8	<u>601</u>	<u>110</u>	601	110	601	110	8	<u>601</u>	<u>110</u>	601	110	601	110
459.GemsFDTD	8	<u>1504</u>	<u>56.4</u>	1502	56.5	1507	56.3	8	<u>1504</u>	<u>56.4</u>	1502	56.5	1507	56.3
465.tonto	8	731	108	<u>725</u>	<u>109</u>	711	111	8	748	105	<u>721</u>	<u>109</u>	700	112
470.lbm	8	902	122	<u>902</u>	<u>122</u>	903	122	4	436	126	<u>436</u>	<u>126</u>	436	126
481.wrf	8	<u>844</u>	<u>106</u>	844	106	842	106	8	<u>844</u>	<u>106</u>	844	106	842	106
482.sphinx3	8	1629	95.7	1630	95.6	<u>1630</u>	<u>95.7</u>	8	<u>1540</u>	<u>101</u>	1539	101	1543	101

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 = 97.8

Servidor Itautec MX214 (Intel Xeon E5640)

SPECfp_rate_base2006 = 95.3

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

Test date: Jul-2011
Hardware Availability: Apr-2011
Software Availability: Jan-2011

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

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



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itaotec

SPECfp_rate2006 = 97.8

Servidor Itaotec MX214 (Intel Xeon E5640)

SPECfp_rate_base2006 = 95.3

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

Test date: Jul-2011
Hardware Availability: Apr-2011
Software Availability: Jan-2011

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: basepeak = yes

470.lbm: -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
-ansi-alias -opt-prefetch -static -auto-ilp32

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

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECfp_rate2006 = 97.8

Servidor Itautec MX214 (Intel Xeon E5640)

SPECfp_rate_base2006 = 95.3

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

Test date: Jul-2011
Hardware Availability: Apr-2011
Software Availability: Jan-2011

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) -prof-use(pass 2) -fno-alias
-auto-ilp32

447.dealIII: 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

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

481.wrf: basepeak = yes



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECfp_rate2006 = 97.8

Servidor Itautec MX214 (Intel Xeon E5640)

SPECfp_rate_base2006 = 95.3

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

Test date: Jul-2011
Hardware Availability: Apr-2011
Software Availability: Jan-2011

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.html>
<http://www.spec.org/cpu2006/flags/Itautec-Intel-Linux64-Platform.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.xml>
<http://www.spec.org/cpu2006/flags/Itautec-Intel-Linux64-Platform.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 23:44:54 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 2 August 2011.