



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp®2006 = 53.4

ACTINA SOLAR 220 X3 (Intel Xeon X5650)

SPECfp_base2006 = 51.3

CPU2006 license: 9008

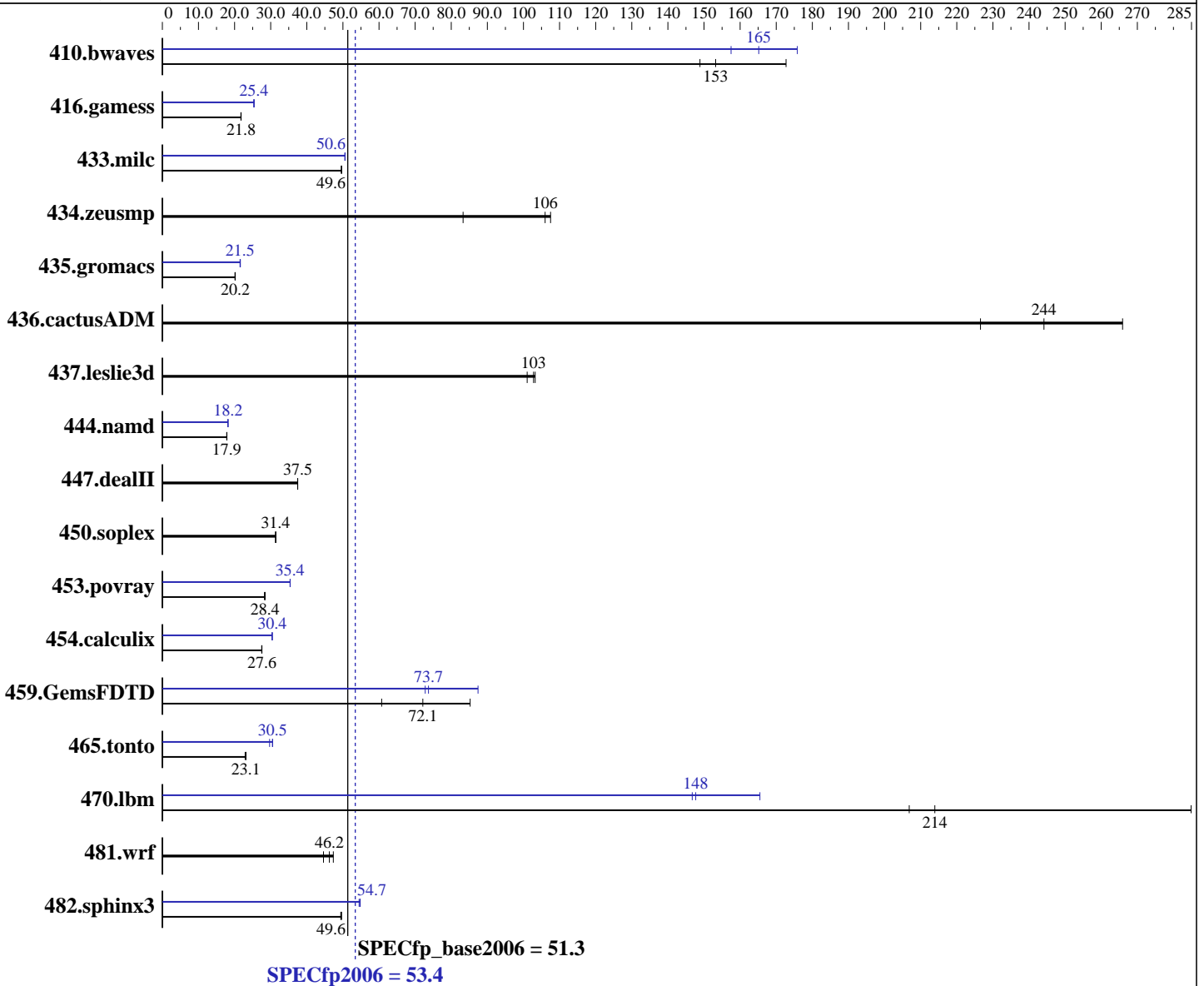
Test sponsor: ACTION S.A.

Tested by: ACTION S.A.

Test date: Jun-2011

Hardware Availability: Apr-2010

Software Availability: Jan-2011



Hardware

CPU Name: Intel Xeon X5650
 CPU Characteristics: Intel Turbo Boost Technology up to 3.06 GHz
 CPU MHz: 2667
 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-default
 Compiler: Intel C++ and Fortran Intel 64 Compiler XE for applications running on Intel 64 Version 12.0.1.116 Build 20101116
 Auto Parallel: Yes
 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

ACTION S.A.

SPECfp2006 = 53.4

ACTINA SOLAR 220 X3 (Intel Xeon X5650)

SPECfp_base2006 = 51.3

CPU2006 license: 9008

Test date: Jun-2011

Test sponsor: ACTION S.A.

Hardware Availability: Apr-2010

Tested by: ACTION S.A.

Software Availability: Jan-2011

L3 Cache: 12 MB I+D on chip per chip
Other Cache: None
Memory: 48 GB (6 x 8 GB 2Rx4 PC3-10600R-9, ECC)
Disk Subsystem: 1 x 500 GB SATA, 7200 RPM
Other Hardware: None

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

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	78.7	173	91.3	149	88.7	153	86.3	157	82.3	165	77.3	176
416.gamess	898	21.8	901	21.7	898	21.8	771	25.4	771	25.4	773	25.3
433.milc	185	49.6	185	49.6	185	49.7	182	50.6	182	50.6	181	50.6
434.zeusmp	109	83.3	84.6	108	85.9	106	109	83.3	84.6	108	85.9	106
435.gromacs	354	20.2	354	20.2	355	20.1	331	21.5	330	21.6	332	21.5
436.cactusADM	44.9	266	48.9	244	52.7	227	44.9	266	48.9	244	52.7	227
437.leslie3d	93.0	101	91.0	103	91.4	103	93.0	101	91.0	103	91.4	103
444.namd	449	17.9	449	17.9	450	17.8	441	18.2	441	18.2	442	18.1
447.dealII	305	37.5	305	37.5	305	37.5	305	37.5	305	37.5	305	37.5
450.soplex	266	31.4	266	31.4	265	31.4	266	31.4	266	31.4	265	31.4
453.povray	188	28.3	187	28.4	187	28.4	150	35.4	150	35.4	150	35.4
454.calculix	299	27.6	300	27.5	299	27.6	271	30.4	271	30.4	271	30.4
459.GemsFDTD	175	60.7	147	72.1	124	85.2	144	73.7	146	72.8	121	87.4
465.tonto	425	23.1	429	22.9	425	23.2	331	29.7	323	30.5	322	30.5
470.lbm	48.2	285	64.2	214	66.4	207	83.0	165	93.6	147	93.0	148
481.wrf	242	46.2	236	47.3	250	44.6	242	46.2	236	47.3	250	44.6
482.sphinx3	394	49.4	393	49.6	393	49.6	358	54.5	356	54.7	356	54.8

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

Operating System Notes

```
'nodev /mnt/hugepages hugetlbfs defaults 0 0' added to /etc/fstab
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
echo 10800 > /proc/sys/vm/nr_hugepages
export HUGETLB_MORECORE=yes
export LD_PRELOAD=/usr/lib64/libhugetlbfs.so
```

General Notes

Binaries compiled on RHEL5.5 with
binutils-2.17.50.0.6-14.el5
OMP_NUM_THREADS set to number of cores



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp2006 = 53.4

ACTINA SOLAR 220 X3 (Intel Xeon X5650)

SPECfp_base2006 = 51.3

CPU2006 license: 9008

Test date: Jun-2011

Test sponsor: ACTION S.A.

Hardware Availability: Apr-2010

Tested by: ACTION S.A.

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 -parallel -opt-prefetch
-ansi-alias

C++ benchmarks:

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

Fortran benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:

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



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp2006 = 53.4

ACTINA SOLAR 220 X3 (Intel Xeon X5650)

SPECfp_base2006 = 51.3

CPU2006 license: 9008

Test date: Jun-2011

Test sponsor: ACTION S.A.

Hardware Availability: Apr-2010

Tested by: ACTION S.A.

Software Availability: Jan-2011

Peak Compiler Invocation

C benchmarks:

icc -m64

C++ benchmarks:

icpc -m64

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

Peak Portability Flags

Same as Base Portability Flags

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
-ansi-alias

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) -parallel
-ansi-alias -static -auto-ilp32

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

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: basepeak = yes

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

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp2006 = 53.4

ACTINA SOLAR 220 X3 (Intel Xeon X5650)

SPECfp_base2006 = 51.3

CPU2006 license: 9008

Test date: Jun-2011

Test sponsor: ACTION S.A.

Hardware Availability: Apr-2010

Tested by: ACTION S.A.

Software Availability: Jan-2011

Peak Optimization Flags (Continued)

Fortran benchmarks:

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

416.gamess: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2 -inline-level=0 -scalar-rep- -static

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2 -inline-level=0 -opt-prefetch -parallel -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

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) -inline-calloc -opt-malloc-options=3 -auto -unroll4 -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) -static -auto-ilp32 -ansi-alias

436.cactusADM: basepeak = yes

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

481.wrf: basepeak = yes

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

<http://www.spec.org/cpu2006/flags/ACTION-platform-linux64.html>

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

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

<http://www.spec.org/cpu2006/flags/ACTION-platform-linux64.xml>

<http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.xml>



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp2006 = 53.4

ACTINA SOLAR 220 X3 (Intel Xeon X5650)

SPECfp_base2006 = 51.3

CPU2006 license: 9008

Test sponsor: ACTION S.A.

Tested by: ACTION S.A.

Test date: Jun-2011

Hardware Availability: Apr-2010

Software Availability: Jan-2011

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 21:56:49 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 5 July 2011.