



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp[®]_rate2006 = 424

ACTINA SOLAR 200 S5 (Intel Xeon E5-2650)

SPECfp_rate_base2006 = 415

CPU2006 license: 9008

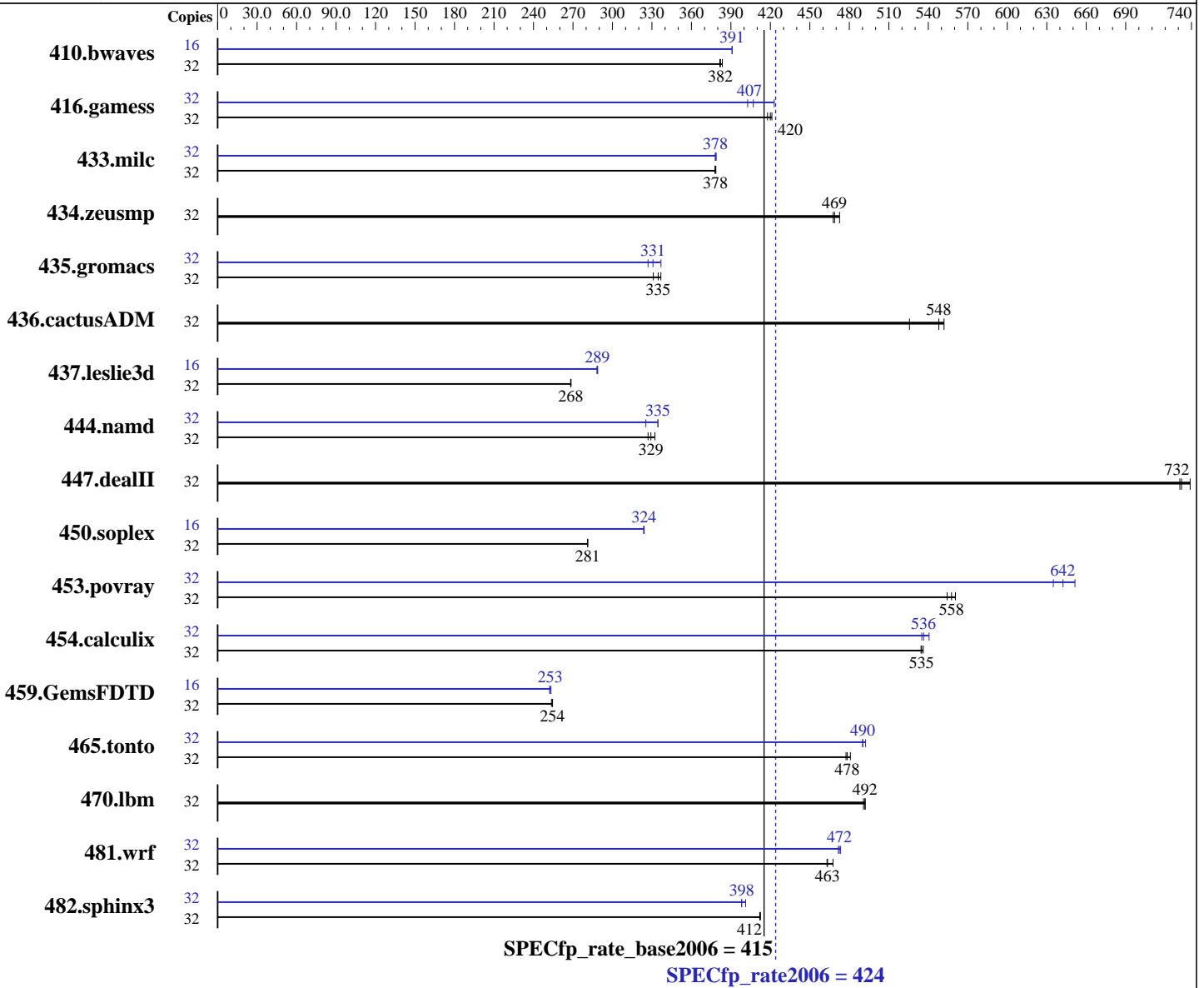
Test sponsor: ACTION S.A.

Tested by: ACTION S.A.

Test date: Nov-2012

Hardware Availability: Mar-2012

Software Availability: Feb-2012



Hardware

CPU Name: Intel Xeon E5-2650
 CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz
 CPU MHz: 2000
 FPU: Integrated
 CPU(s) enabled: 16 cores, 2 chips, 8 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 SP2 (x86_64) 3.0.13-0.27-default
 Compiler: C/C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux;
 Fortran: Version 12.1.0.225 of Intel Fortran Studio XE for Linux
 Auto Parallel: No
 File System: ext3
 System State: Run level 3 (multi-user)

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp_rate2006 = 424

ACTINA SOLAR 200 S5 (Intel Xeon E5-2650)

SPECfp_rate_base2006 = 415

CPU2006 license: 9008

Test date: Nov-2012

Test sponsor: ACTION S.A.

Hardware Availability: Mar-2012

Tested by: ACTION S.A.

Software Availability: Feb-2012

L3 Cache: 20 MB I+D on chip per chip
Other Cache: None
Memory: 256 GB (16 x 16 GB 2Rx4 PC3-12800R-11, ECC)
Disk Subsystem: 1 x 2 TB SATA, 7200 RPM
Other Hardware: None

Base Pointers: 32/64-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	32	1134	384	1140	382	1138	382	16	556	391	556	391	556	391
416.gamess	32	1500	418	1492	420	1488	421	32	1481	423	1556	403	1539	407
433.milc	32	777	378	777	378	776	379	32	775	379	777	378	777	378
434.zeusmp	32	623	468	616	473	621	469	32	623	468	616	473	621	469
435.gromacs	32	678	337	690	331	682	335	32	691	331	699	327	678	337
436.cactusADM	32	727	526	693	552	698	548	32	727	526	693	552	698	548
437.leslie3d	32	1121	268	1120	269	1121	268	16	522	288	521	289	521	289
444.namd	32	772	332	779	329	785	327	32	767	335	789	325	767	335
447.dealII	32	495	739	501	731	500	732	32	495	739	501	731	500	732
450.soplex	32	949	281	950	281	949	281	16	412	324	412	324	412	324
453.povray	32	304	561	305	558	307	554	32	265	642	261	651	268	635
454.calculix	32	492	536	493	535	494	534	32	488	541	493	535	492	536
459.GemsFDTD	32	1334	254	1339	254	1334	254	16	670	253	671	253	673	252
465.tonto	32	655	481	659	477	658	478	32	640	492	642	490	643	490
470.lbm	32	896	491	893	492	894	492	32	896	491	893	492	894	492
481.wrf	32	764	468	771	463	772	463	32	755	473	758	472	757	472
482.sphinx3	32	1514	412	1512	412	1514	412	32	1555	401	1566	398	1567	398

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

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

Sysinfo program /cpu2006.1.2/config/sysinfo.rev6800
\$Rev: 6800 \$ \$Date:: 2011-10-11 #\$ 6f2ebdff5032aaa42e583f96b07f99d3
running on SUT Wed Nov 28 03:10:39 2012

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp_rate2006 = 424

ACTINA SOLAR 200 S5 (Intel Xeon E5-2650)

SPECfp_rate_base2006 = 415

CPU2006 license: 9008

Test date: Nov-2012

Test sponsor: ACTION S.A.

Hardware Availability: Mar-2012

Tested by: ACTION S.A.

Software Availability: Feb-2012

Platform Notes (Continued)

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see: <http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

```

From /proc/cpuinfo
model name      : Intel(R) Xeon(R) CPU E5-2650 0 @ 2.00GHz
 2 "physical id"s (chips)
 32 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
  cpu cores    : 8
  siblings     : 16
  physical 0: cores 0 1 2 3 4 5 6 7
  physical 1: cores 0 1 2 3 4 5 6 7
  cache size   : 20480 KB

```

```

From /proc/meminfo
MemTotal:      264518336 kB
HugePages_Total: 0
Hugepagesize:  2048 kB

```

```

/usr/bin/lsb_release -d
SUSE Linux Enterprise Server 11 (x86_64)

```

```

From /etc/*release* /etc/*version*
SuSE-release:
SUSE Linux Enterprise Server 11 (x86_64)
VERSION = 11
PATCHLEVEL = 2

```

```

uname -a:
Linux SUT 3.0.13-0.27-default #1 SMP Wed Feb 15 13:33:49 UTC 2012 (d73692b)
x86_64 x86_64 x86_64 GNU/Linux

```

run-level 3 Nov 27 12:59 last=S

```

SPEC is set to: /cpu2006.1.2
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda2       ext3  1.6T   36G  1.5T   3% /

```

Additional information from dmidecode:

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/cpu2006.1.2/libs/32:/cpu2006.1.2/libs/64"

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp_rate2006 = 424

ACTINA SOLAR 200 S5 (Intel Xeon E5-2650)

SPECfp_rate_base2006 = 415

CPU2006 license: 9008

Test date: Nov-2012

Test sponsor: ACTION S.A.

Hardware Availability: Mar-2012

Tested by: ACTION S.A.

Software Availability: Feb-2012

General Notes (Continued)

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5
 Transparent Huge Pages enabled with:
 echo always > /sys/kernel/mm/transparent_hugepage/enabled
 Filesystem page cache cleared with:
 echo 1> /proc/sys/vm/drop_caches
 runspec command invoked through numactl i.e.:
 numactl --interleave=all runspec <etc>

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.deallI: -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



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp_rate2006 = 424

ACTINA SOLAR 200 S5 (Intel Xeon E5-2650)

SPECfp_rate_base2006 = 415

CPU2006 license: 9008

Test date: Nov-2012

Test sponsor: ACTION S.A.

Hardware Availability: Mar-2012

Tested by: ACTION S.A.

Software Availability: Feb-2012

Base Optimization Flags

C benchmarks:

`-xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -auto-p32
-ansi-alias -opt-mem-layout-trans=3`

C++ benchmarks:

`-xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -auto-p32
-ansi-alias -opt-mem-layout-trans=3`

Fortran benchmarks:

`-xAVX -ipo -O3 -no-prec-div -static -opt-prefetch`

Benchmarks using both Fortran and C:

`-xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -auto-p32
-ansi-alias -opt-mem-layout-trans=3`

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.deallI: -DSPEC_CPU_LP64`

`453.povray: -DSPEC_CPU_LP64`

Continued on next page

Standard Performance Evaluation Corporation

info@spec.org

<http://www.spec.org/>

Page 5



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp_rate2006 = 424

ACTINA SOLAR 200 S5 (Intel Xeon E5-2650)

SPECfp_rate_base2006 = 415

CPU2006 license: 9008

Test date: Nov-2012

Test sponsor: ACTION S.A.

Hardware Availability: Mar-2012

Tested by: ACTION S.A.

Software Availability: Feb-2012

Peak Portability Flags (Continued)

454.calculix: -DSPEC_CPU_LP64 -nofor_main
 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: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
 -no-prec-div(pass 2) -prof-use(pass 2) -static -auto-ilp32
 -opt-mem-layout-trans=3

470.lbm: basepeak = yes

482.sphinx3: -xAVX -ipo -O3 -no-prec-div -unroll2

C++ benchmarks:

444.namd: -xAVX(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: -xAVX(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

453.povray: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
 -no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -ansi-alias

Fortran benchmarks:

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

416.gamess: -xAVX(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: -xAVX -ipo -O3 -no-prec-div -static -opt-prefetch

459.GemsFDTD: -xAVX(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

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ACTION S.A.

SPECfp_rate2006 = 424

ACTINA SOLAR 200 S5 (Intel Xeon E5-2650)

SPECfp_rate_base2006 = 415

CPU2006 license: 9008

Test date: Nov-2012

Test sponsor: ACTION S.A.

Hardware Availability: Mar-2012

Tested by: ACTION S.A.

Software Availability: Feb-2012

Peak Optimization Flags (Continued)

465.tonto: -xAVX(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

Benchmarks using both Fortran and C:

435.gromacs: -xAVX(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 -opt-mem-layout-trans=3

436.cactusADM: basepeak = yes

454.calculix: -xAVX -ipo -O3 -no-prec-div -static -auto-ilp32
-opt-mem-layout-trans=3

481.wrf: Same as 454.calculix

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.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 v1.2.
Report generated on Thu Jul 24 13:58:47 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 18 December 2012.