



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## ACTION S.A.

SPECint®\_rate2006 = 394

ACTINA SOLAR 232 S4+ (Intel Xeon X5680)

SPECint\_rate\_base2006 = 372

CPU2006 license: 9008

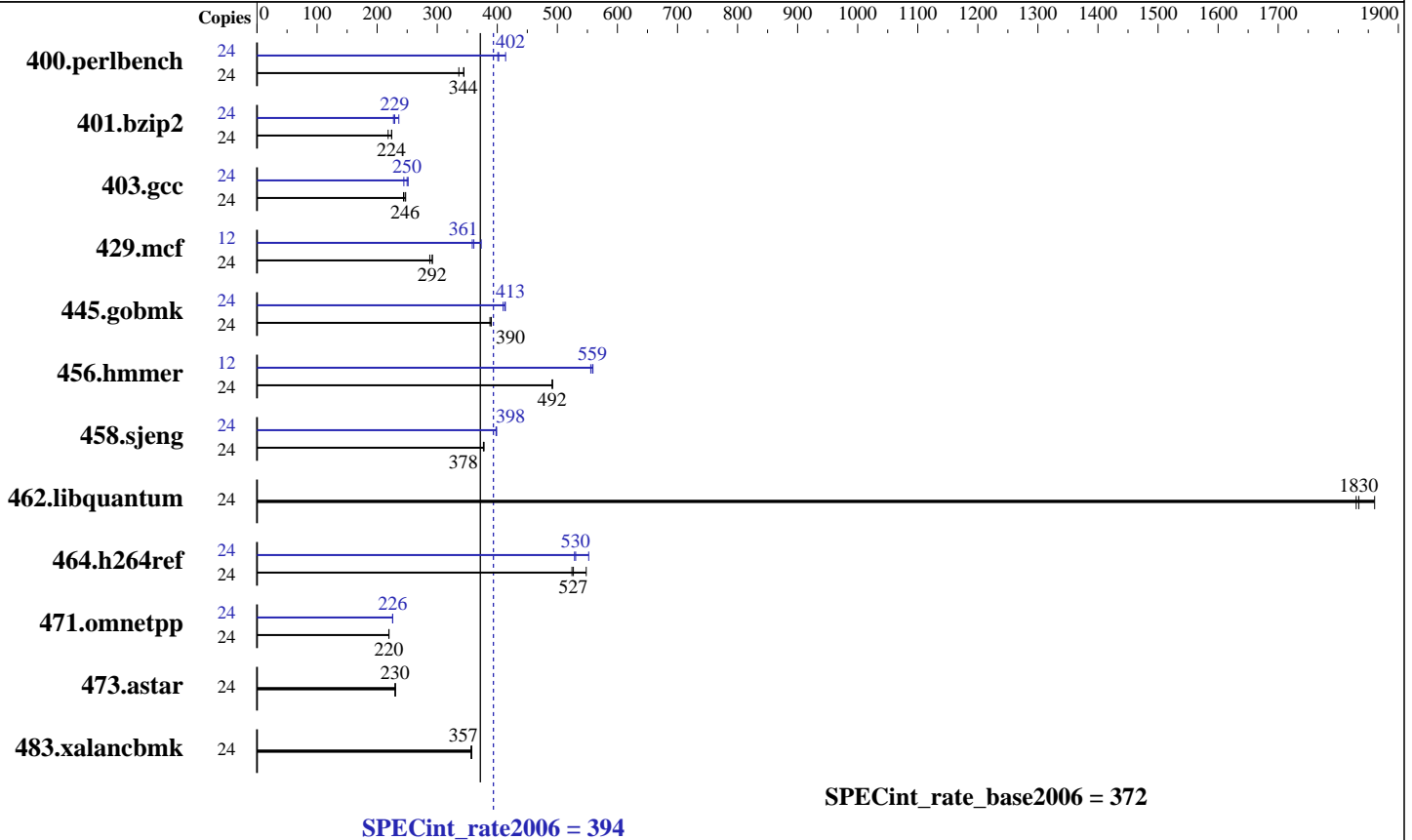
Test date: May-2011

Test sponsor: ACTION S.A.

Hardware Availability: Apr-2010

Tested by: ACTION S.A.

Software Availability: Jan-2011



### Hardware

CPU Name: Intel Xeon X5680  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.60 GHz  
 CPU MHz: 3333  
 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  
 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 SATA, 7200 RPM  
 Other Hardware: None

### Software

Operating System: SuSe Linux Enterprise Server 11 (x86\_64), Kernel 2.6.27.19-5-default  
 Compiler: Intel C++ Compiler XE for applications running on IA-32 Version 12.0.1.116 Build 20101116  
 Auto Parallel: No  
 File System: ReiserFS  
 System State: Run level 3 (multi-user)  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V9.01



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**ACTION S.A.**

SPECint\_rate2006 = 394

ACTINA SOLAR 232 S4+ (Intel Xeon X5680)

SPECint\_rate\_base2006 = 372

CPU2006 license: 9008  
Test sponsor: ACTION S.A.  
Tested by: ACTION S.A.

Test date: May-2011  
Hardware Availability: Apr-2010  
Software Availability: Jan-2011

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	24	698	336	<b>682</b>	<b>344</b>	681	344	24	585	401	<b>583</b>	<b>402</b>	567	414
401.bzip2	24	1061	218	<b>1034</b>	<b>224</b>	1033	224	24	<b>1010</b>	<b>229</b>	1019	227	981	236
403.gcc	24	<b>784</b>	<b>246</b>	792	244	781	247	24	768	252	<b>773</b>	<b>250</b>	790	244
429.mcf	24	761	288	<b>750</b>	<b>292</b>	750	292	12	305	358	<b>303</b>	<b>361</b>	293	373
445.gobmk	24	646	390	<b>646</b>	<b>390</b>	649	388	24	609	413	<b>610</b>	<b>413</b>	614	410
456.hammer	24	<b>456</b>	<b>492</b>	456	492	455	492	12	202	556	<b>200</b>	<b>559</b>	200	559
458.sjeng	24	770	377	<b>769</b>	<b>378</b>	769	378	24	<b>729</b>	<b>398</b>	728	399	730	398
462.libquantum	24	267	1860	<b>271</b>	<b>1830</b>	272	1830	24	267	1860	<b>271</b>	<b>1830</b>	272	1830
464.h264ref	24	969	548	1013	524	<b>1008</b>	<b>527</b>	24	962	552	<b>1001</b>	<b>530</b>	1005	529
471.omnetpp	24	<b>683</b>	<b>220</b>	684	219	682	220	24	664	226	664	226	<b>664</b>	<b>226</b>
473.astar	24	733	230	731	231	<b>733</b>	<b>230</b>	24	733	230	731	231	<b>733</b>	<b>230</b>
483.xalancbmk	24	465	356	463	357	<b>463</b>	<b>357</b>	24	465	356	463	357	<b>463</b>	<b>357</b>

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

```
'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

## Base Compiler Invocation

C benchmarks:  
icc -m32

C++ benchmarks:  
icpc -m32



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**ACTION S.A.**

**SPECint\_rate2006 = 394**

**ACTINA SOLAR 232 S4+ (Intel Xeon X5680)**

**SPECint\_rate\_base2006 = 372**

**CPU2006 license:** 9008

**Test sponsor:** ACTION S.A.

**Tested by:** ACTION S.A.

**Test date:** May-2011

**Hardware Availability:** Apr-2010

**Software Availability:** Jan-2011

## Base Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_IA32  
462.libquantum: -DSPEC\_CPU\_LINUX  
483.xalancbmk: -DSPEC\_CPU\_LINUX

## Base Optimization Flags

C benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch  
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs  
-L/smartheap -lsmartheap  
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

## Base Other Flags

C benchmarks:

403.gcc: -Dalloca=\_alloca

## Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m32

400.perlbench: icc -m64

401.bzip2: icc -m64

456.hmmer: icc -m64

458.sjeng: icc -m64

C++ benchmarks:

icpc -m32

## Peak Portability Flags

400.perlbench: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_LINUX\_X64  
401.bzip2: -DSPEC\_CPU\_LP64

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**ACTION S.A.**

**SPECint\_rate2006 = 394**

**ACTINA SOLAR 232 S4+ (Intel Xeon X5680)**

**SPECint\_rate\_base2006 = 372**

**CPU2006 license:** 9008

**Test date:** May-2011

**Test sponsor:** ACTION S.A.

**Hardware Availability:** Apr-2010

**Tested by:** ACTION S.A.

**Software Availability:** Jan-2011

## Peak Portability Flags (Continued)

456.hmmr: -DSPEC\_CPU\_LP64  
458.sjeng: -DSPEC\_CPU\_LP64  
462.libquantum: -DSPEC\_CPU\_LINUX  
483.xalancbmk: -DSPEC\_CPU\_LINUX

## Peak Optimization Flags

C benchmarks:

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

401.bzip2: -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 -auto-ilp32 -ansi-alias  
-B /usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT

403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div  
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

429.mcf: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)  
-ansi-alias -auto-ilp32

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)  
-ansi-alias -auto-ilp32

456.hmmr: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32  
-B /usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT

458.sjeng: -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-ilp32  
-B /usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT

462.libquantum: basepeak = yes

464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)  
-unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)  
-ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs  
-L/smartheap -lsmartheap

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**ACTION S.A.**

**SPECint\_rate2006 = 394**

**ACTINA SOLAR 232 S4+ (Intel Xeon X5680)**

**SPECint\_rate\_base2006 = 372**

**CPU2006 license:** 9008

**Test date:** May-2011

**Test sponsor:** ACTION S.A.

**Hardware Availability:** Apr-2010

**Tested by:** ACTION S.A.

**Software Availability:** Jan-2011

## Peak Optimization Flags (Continued)

473.astar: basepeak = yes

483.xalancbmk: basepeak = yes

## Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=\_alloca

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 and SPECint 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 21:15:50 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 2 June 2011.