



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## ACTION S.A.

ACTINA SOLAR 210 Q5 (Intel Xeon E5-2620 v2, 2.10 GHz)

SPECint®\_rate2006 = 433

SPECint\_rate\_base2006 = 416

CPU2006 license: 9008

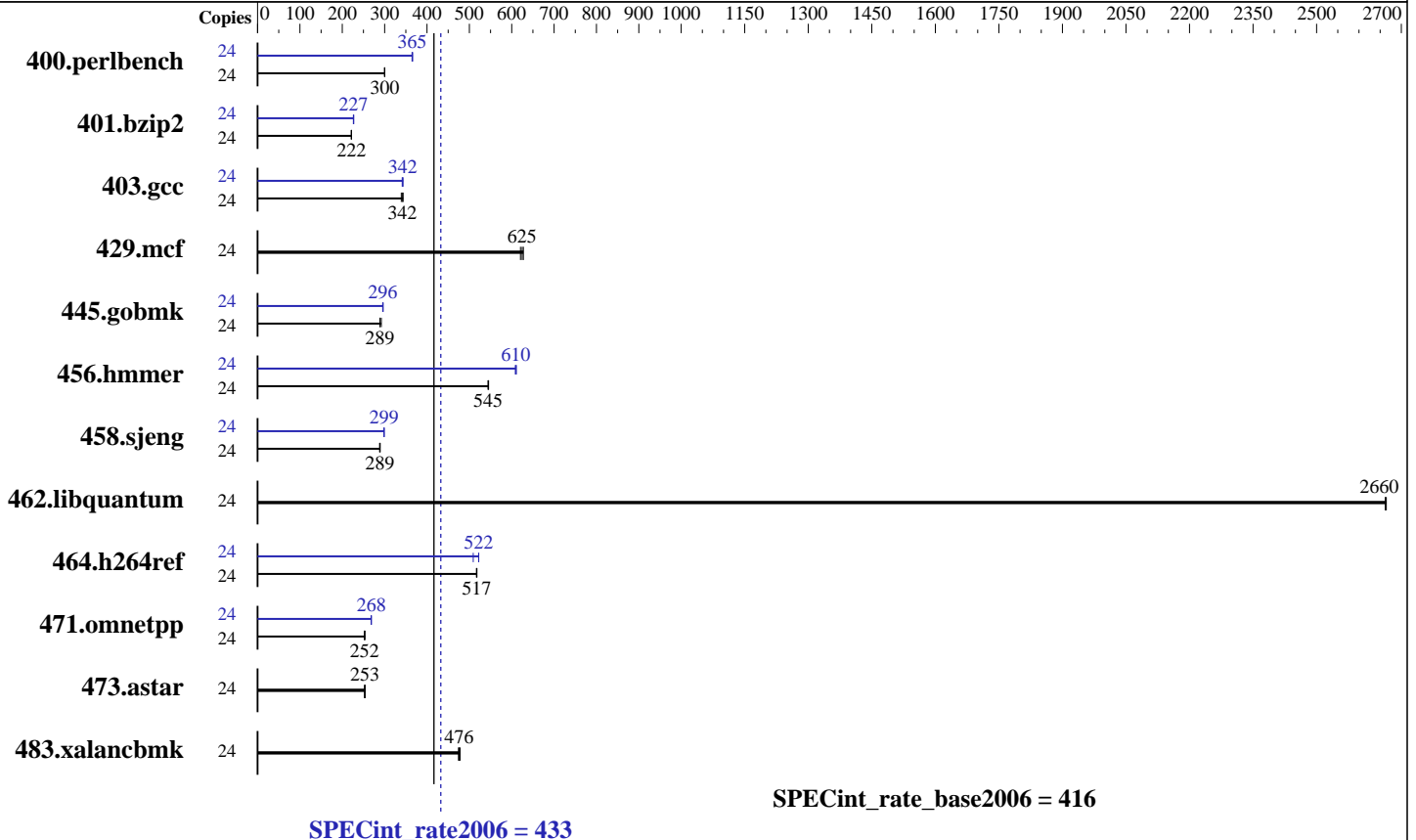
Test sponsor: ACTION S.A.

Tested by: ACTION S.A.

Test date: Jul-2014

Hardware Availability: Oct-2013

Software Availability: Sep-2013



### Hardware

CPU Name: Intel Xeon E5-2620 v2  
 CPU Characteristics: Intel Turbo Boost Technology up to 2.60 GHz  
 CPU MHz: 2100  
 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: 15 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 128 GB (16 x 8 GB 2Rx4 PC3-14900R-13, ECC, running at 1600 MHz and CL11)  
 Disk Subsystem: 1 x 240 GB SATA II SSD  
 Other Hardware: None

### Software

Operating System: Red Hat Enterprise Linux Server release 6.4 (Santiago)  
 2.6.32-358.11.1.el6.x86\_64  
 Compiler: C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux  
 Auto Parallel: No  
 File System: ext4  
 System State: Run level 3 (multi-user)  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V10.0



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## ACTION S.A.

ACTINA SOLAR 210 Q5 (Intel Xeon E5-2620 v2, 2.10 GHz)

SPECint\_rate2006 = 433

SPECint\_rate\_base2006 = 416

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

Test date: Jul-2014  
Hardware Availability: Oct-2013  
Software Availability: Sep-2013

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	24	781	300	<b>781</b>	<b>300</b>	783	300	24	<b>643</b>	<b>365</b>	640	366	643	365
401.bzip2	24	1047	221	1044	222	<b>1045</b>	<b>222</b>	24	1024	226	1021	227	<b>1021</b>	<b>227</b>
403.gcc	24	562	344	<b>565</b>	<b>342</b>	569	339	24	<b>564</b>	<b>342</b>	566	341	563	343
429.mcf	24	<b>350</b>	<b>625</b>	353	621	349	627	24	<b>350</b>	<b>625</b>	353	621	349	627
445.gobmk	24	871	289	862	292	<b>871</b>	<b>289</b>	24	852	295	849	297	<b>851</b>	<b>296</b>
456.hammer	24	<b>411</b>	<b>545</b>	411	545	412	544	24	367	611	<b>367</b>	<b>610</b>	368	608
458.sjeng	24	1008	288	1004	289	<b>1004</b>	<b>289</b>	24	972	299	973	298	<b>973</b>	<b>299</b>
462.libquantum	24	<b>187</b>	<b>2660</b>	187	2660	187	2660	24	<b>187</b>	<b>2660</b>	187	2660	187	2660
464.h264ref	24	1026	518	1028	517	<b>1027</b>	<b>517</b>	24	1017	522	<b>1018</b>	<b>522</b>	1043	509
471.omnetpp	24	<b>594</b>	<b>252</b>	595	252	591	254	24	558	269	560	268	<b>559</b>	<b>268</b>
473.astar	24	664	254	668	252	<b>665</b>	<b>253</b>	24	664	254	668	252	<b>665</b>	<b>253</b>
483.xalancbmk	24	346	478	349	474	<b>348</b>	<b>476</b>	24	346	478	349	474	<b>348</b>	<b>476</b>

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

Bios Settings  
Power Technology = Custom  
Energy Performance = Performance  
Turbo Mode = Enabled  
C1E Support = Disabled  
CPU C3 Report = Disabled  
CPU C6 Report = Disabled  
Package C State Limit = No Limit

Sysinfo program /cpu2006.1.2/config/sysinfo.rev6818  
\$Rev: 6818 \$ \$Date:: 2012-07-17 #\$ e86d102572650a6e4d596a3cee98f191  
running on localhost.localdomain Sat Jul 12 02:46:49 2014

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>

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## ACTION S.A.

ACTINA SOLAR 210 Q5 (Intel Xeon E5-2620 v2, 2.10 GHz)

SPECint\_rate2006 = 433

SPECint\_rate\_base2006 = 416

CPU2006 license: 9008

Test sponsor: ACTION S.A.

Tested by: ACTION S.A.

Test date: Jul-2014

Hardware Availability: Oct-2013

Software Availability: Sep-2013

### Platform Notes (Continued)

```

From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E5-2620 v2 @ 2.10GHz
 2 "physical id"s (chips)
24 "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 : 6
  siblings  : 12
  physical 0: cores 0 1 2 3 4 5
  physical 1: cores 0 1 2 3 4 5
cache size : 15360 KB

```

```

From /proc/meminfo
MemTotal:      132126620 kB
HugePages_Total:      0
Hugepagesize:    2048 kB

```

```

/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.4 (Santiago)

```

```

From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

```

```

uname -a:
Linux localhost.localdomain 2.6.32-358.11.1.el6.x86_64 #1 SMP Tue Nov 19
17:43:04 CET 2013 x86_64 x86_64 x86_64 GNU/Linux

```

run-level 3 Jul 8 21:39

```

SPEC is set to: /cpu2006.1.2
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/sdal        ext4      193G   56G  128G  31% /

```

```

Additional information from dmidecode:
BIOS American Megatrends Inc. 3.0a 02/11/2014
Memory:
16x      8 GB
14x Hynix Semiconducto HMT31GR7EFR4C 8 GB 1600 MHz 2 rank
2x Hynix Semiconductor HMT31GR7EFR4C- 8 GB 1600 MHz 2 rank

```

```

(End of data from sysinfo program)
dmidecode does not properly detect memory modules
16 modules of 8 GB were used to run the test (128 GB total)

```



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**ACTION S.A.**

**SPECint\_rate2006 = 433**

ACTINA SOLAR 210 Q5 (Intel Xeon E5-2620 v2, 2.10 GHz)

**SPECint\_rate\_base2006 = 416**

**CPU2006 license:** 9008

**Test date:** Jul-2014

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

**Hardware Availability:** Oct-2013

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

**Software Availability:** Sep-2013

## 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:/cpu2006.1.2/sh"

Transparent Huge Pages enabled with:

```
echo always > /sys/kernel/mm/redhat_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>
```

Binaries compiled on a system with 2x Xeon E5-2650 v2 chips + 256 GB memory using RedHat EL 6.4

## Base Compiler Invocation

C benchmarks:

```
icc -m32
```

C++ benchmarks:

```
icpc -m32
```

## 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 -opt-mem-layout-trans=3
```

C++ benchmarks:

```
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3
```

```
-Wl,-z,muldefs -L/cpu2006.1.2/sh -lsmartheap
```

## Base Other Flags

C benchmarks:

```
403.gcc: -Dalloca=_alloca
```



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**ACTION S.A.**

ACTINA SOLAR 210 Q5 (Intel Xeon E5-2620 v2, 2.10 GHz)

**SPECint\_rate2006 = 433**

**SPECint\_rate\_base2006 = 416**

**CPU2006 license:** 9008

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

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

**Test date:** Jul-2014

**Hardware Availability:** Oct-2013

**Software Availability:** Sep-2013

## 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

456.hmmer: -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)  
-auto-ilp32

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

403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div

429.mcf: basepeak = yes

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)  
-ansi-alias -opt-mem-layout-trans=3

456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32

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

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**ACTION S.A.**

ACTINA SOLAR 210 Q5 (Intel Xeon E5-2620 v2, 2.10 GHz)

**SPECint\_rate2006 = 433**

**SPECint\_rate\_base2006 = 416**

**CPU2006 license:** 9008

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

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

**Test date:** Jul-2014

**Hardware Availability:** Oct-2013

**Software Availability:** Sep-2013

## Peak Optimization Flags (Continued)

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/cpu2006.1.2/sh -lsmartheap

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/Intel-ic14.0-official-linux64.20140128.html>

<http://www.spec.org/cpu2006/flags/ACTION.SA-Platform-Flags-RevB-apr-2014-For-Supermicro-Platform.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.xml>

<http://www.spec.org/cpu2006/flags/ACTION.SA-Platform-Flags-RevB-apr-2014-For-Supermicro-Platform.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 v1.2.

Report generated on Wed Jul 30 10:53:57 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 29 July 2014.