SPEC® CINT2006 Result

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ACTION S.A.

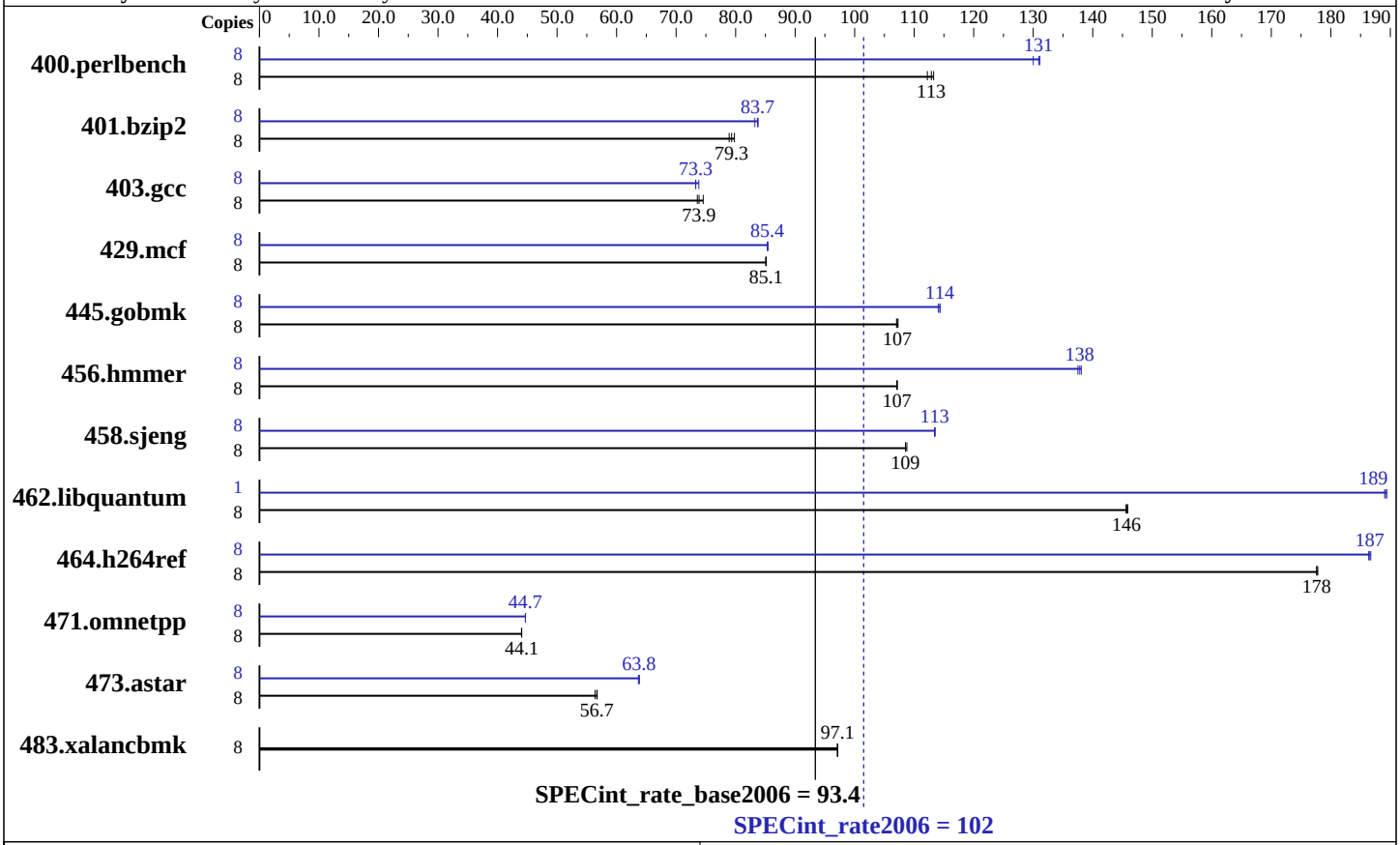
ACTINA SOLAR 200 X2 (Intel Xeon E5405, 2.0 GHz)

SPECint®_rate2006 = 102

SPECint_rate_base2006 = 93.4

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

Test date: Oct-2008
Hardware Availability: Sep-2008
Software Availability: Nov-2008



Hardware

CPU Name:	Intel Xeon E5405
CPU Characteristics:	1333 MHz System Bus
CPU MHz:	2000
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	12 MB I+D on chip per chip, 6 MB shared / 2 cores
L3 Cache:	None
Other Cache:	None
Memory:	16 GB (8x2 GB PC2-5300, CL 5-5-5, ECC)
Disk Subsystem:	RAID 10 (6x300 GB SAS, 15000 RPM)
Other Hardware:	None

Software

Operating System:	SuSE Linux Enterprise Server 10 (x86_64) with SP2, kernel 2.6.16.60-0.21-smp
Compiler:	Intel C++ Compiler 11.0 for Linux Build 20080730 Package ID: l_cproc_b_11.0.042
Auto Parallel:	Yes
File System:	ReiserFS
System State:	Run level 3 (multi-user)
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V8.1 Binutils 2.18.50.0.7.20080502

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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	697	112	690	113	**692**	**113**	8	596	131	601	130	**597**	**131**
401.bzip2	8	967	79.8	**973**	**79.3**	978	78.9	8	**923**	**83.7**	921	83.8	928	83.2
403.gcc	8	864	74.6	875	73.6	**872**	**73.9**	8	879	73.3	872	73.8	**878**	**73.3**
429.mcf	8	**857**	**85.1**	858	85.1	857	85.2	8	**855**	**85.4**	854	85.4	855	85.3
445.gobmk	8	**783**	**107**	784	107	782	107	8	734	114	**734**	**114**	736	114
456.hmmer	8	697	107	697	107	**697**	**107**	8	**542**	**138**	541	138	543	138
458.sjeng	8	890	109	**892**	**109**	892	109	8	**853**	**113**	854	113	853	114
462.libquantum	8	1139	146	**1138**	**146**	1136	146	1	109	189	110	189	**110**	**189**
464.h264ref	8	996	178	**997**	**178**	997	178	8	950	186	948	187	**949**	**187**
471.omnetpp	8	1135	44.1	1136	44.0	**1135**	**44.1**	8	1119	44.7	**1119**	**44.7**	1119	44.7
473.astar	8	990	56.7	996	56.4	**991**	**56.7**	8	880	63.8	882	63.7	**880**	**63.8**
483.xalancbmk	8	**568**	**97.1**	568	97.2	568	97.1	8	**568**	**97.1**	568	97.2	568	97.1

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.
```

Platform Notes

```
This result is measured on ACTINA SOLAR 202 X2.
Note that the ACTINA SOLAR 202 X2 and  ACTINA SOLAR 200 X2
are electrically equivalent.
```

General Notes

```
 'taskset' was used to bind processes to cores except
 for 462.libquantum peak
 OMP_NUM_THREADS set to number of processors
 KMP_AFFINITY set to "physical,0"
 KMP_STACKSIZE set to 64M
 'ulimit -s unlimited' was used to set the stack size to unlimited prior to run
```

Base Compiler Invocation

C benchmarks:

```
icc
```

C++ benchmarks:

```
icpc
```

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-xSSE4.1 -ipo -O3 -no-prec-div -static -inline-calloc
-opt-malloc-options=3 -opt-prefetch

C++ benchmarks:
-xSSE4.1 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/spec/cpu2006.1.1/lib -lsmartheap

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
icc

401.bzip2: /opt/intel/Compiler/11.0/042/bin/intel64/icc
-L/opt/intel/Compiler/11.0/042/ipp/em64t/lib
-I/opt/intel/Compiler/11.0/042/ipp/em64t/include

456.hmmer: /opt/intel/Compiler/11.0/042/bin/intel64/icc
-L/opt/intel/Compiler/11.0/042/ipp/em64t/lib
-I/opt/intel/Compiler/11.0/042/ipp/em64t/include

C++ benchmarks:
icpc

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64

Continued on next page

Peak Portability Flags (Continued)

462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -static -ansi-alias -opt-prefetch

401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch -ansi-alias

403.gcc: -xSSE4.1 -ipo -O3 -no-prec-div -static -inline-calloc -opt-malloc-options=3

429.mcf: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch

445.gobmk: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -O2 -ipo -no-prec-div -ansi-alias

456.hmmer: -xSSE4.1 -ipo -O3 -no-prec-div -static -unroll2 -ansi-alias

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -static -unroll4

462.libquantum: -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-malloc-options=3 -parallel -par-runtime-control -opt-prefetch

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

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap

473.astar: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -ansi-alias -opt-ra-region-strategy=routine -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap

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-ic11.0-int-linux64-revA.20090713.01.html`
`http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20090713.00.html`

You can also download the XML flags sources by saving the following links:
`http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20090713.01.xml`
`http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20090713.00.xml`

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Tested with SPEC CPU2006 v1.1.
Report generated on Tue Jul 22 20:21:29 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 11 November 2008.