



SPEC® CINT2006 Result

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ACTION S.A.

SPECint®_rate2006 = 324

ACTINA SOLAR 220 S4 (Intel Xeon E5645)

SPECint_rate_base2006 = 311

CPU2006 license: 9008

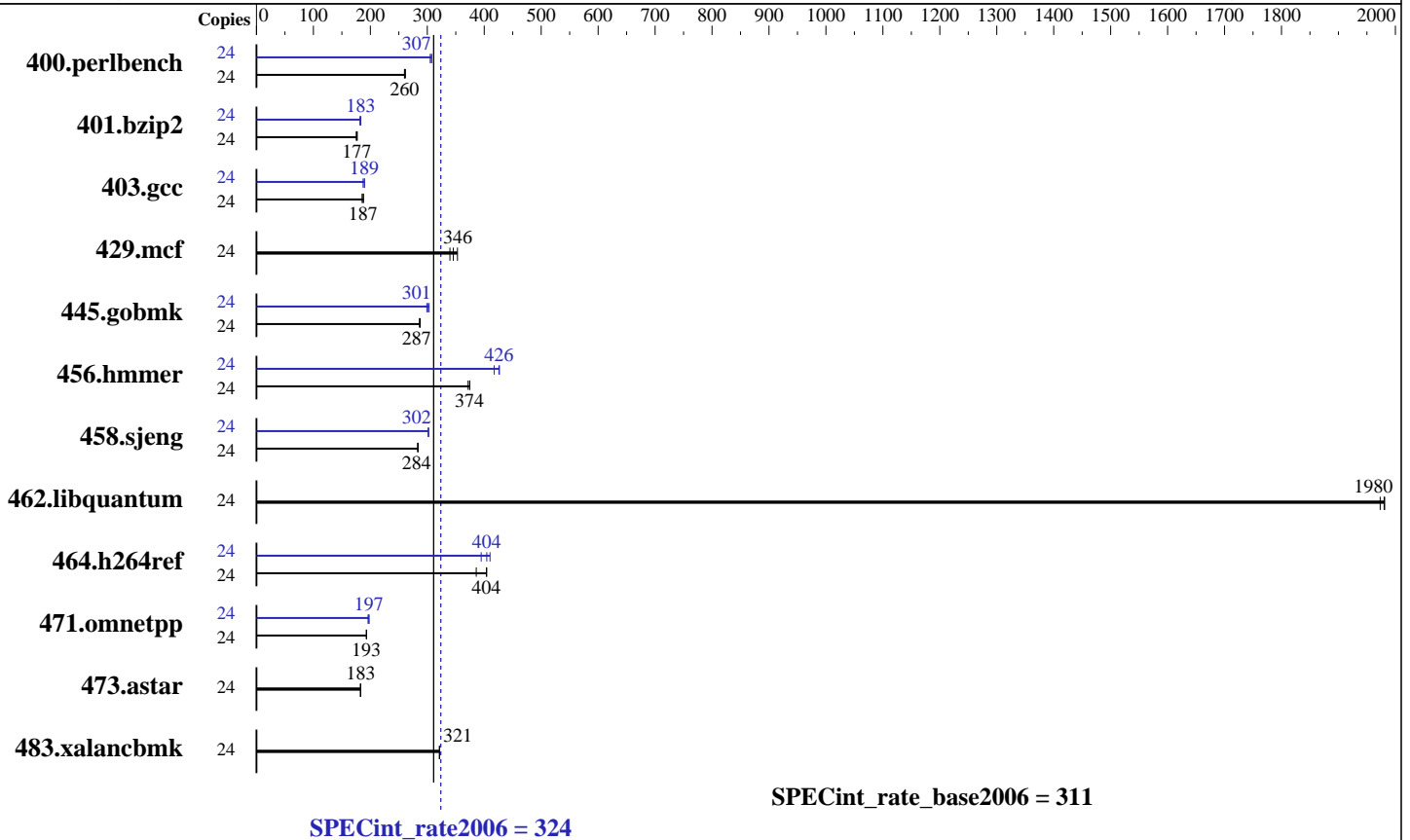
Test date: Jan-2012

Test sponsor: ACTION S.A.

Hardware Availability: Sep-2011

Tested by: ACTION S.A.

Software Availability: Oct-2011



Hardware

CPU Name: Intel Xeon E5645
CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz
CPU MHz: 2400
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 (6 x 8 GB 2Rx4 PC3-10600R-9, ECC)
Disk Subsystem: 2 TB SATA, 7200 RPM
Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 11 (x86_64) SP2, kernel 3.0.13-0.9-default
Compiler: C/C++; Version 12.1.0.225 of Intel C++ Studio XE for Linux
Auto Parallel: No
File System: ext3
System State: Run level 3 (multi-user)
Base Pointers: 32-bit
Peak Pointers: 32/64-bit
Other Software: Microquill SmartHeap V9.01



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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	24	902	260	896	262	<u>901</u>	<u>260</u>	24	763	307	769	305	<u>763</u>	<u>307</u>
401.bzip2	24	<u>1312</u>	<u>177</u>	1322	175	1309	177	24	1274	182	<u>1266</u>	<u>183</u>	1264	183
403.gcc	24	1028	188	<u>1031</u>	<u>187</u>	1042	185	24	<u>1020</u>	<u>189</u>	1019	190	1032	187
429.mcf	24	620	353	644	340	<u>633</u>	<u>346</u>	24	620	353	644	340	<u>633</u>	<u>346</u>
445.gobmk	24	<u>877</u>	<u>287</u>	875	288	880	286	24	830	303	<u>837</u>	<u>301</u>	841	299
456.hammer	24	598	375	603	372	<u>598</u>	<u>374</u>	24	525	427	537	417	<u>526</u>	<u>426</u>
458.sjeng	24	<u>1024</u>	<u>284</u>	1026	283	1024	284	24	962	302	<u>962</u>	<u>302</u>	961	302
462.libquantum	24	<u>251</u>	<u>1980</u>	252	1970	251	1980	24	<u>251</u>	<u>1980</u>	252	1970	251	1980
464.h264ref	24	<u>1316</u>	<u>404</u>	1313	404	1376	386	24	1295	410	<u>1313</u>	<u>404</u>	1346	395
471.omnetpp	24	776	193	<u>777</u>	<u>193</u>	777	193	24	<u>760</u>	<u>197</u>	766	196	759	198
473.astar	24	920	183	924	182	<u>920</u>	<u>183</u>	24	920	183	924	182	<u>920</u>	<u>183</u>
483.xalancbmk	24	<u>515</u>	<u>321</u>	515	321	515	322	24	<u>515</u>	<u>321</u>	515	321	515	322

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"

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"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5

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 -m32

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Base Compiler Invocation (Continued)

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/smartheap -lsmartheap

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



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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

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

473.astar: basepeak = yes

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Peak Optimization Flags (Continued)

483.xalanbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

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>

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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 03:56:10 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 13 March 2012.