SPEC® CINT2006 Result

IBM Corporation

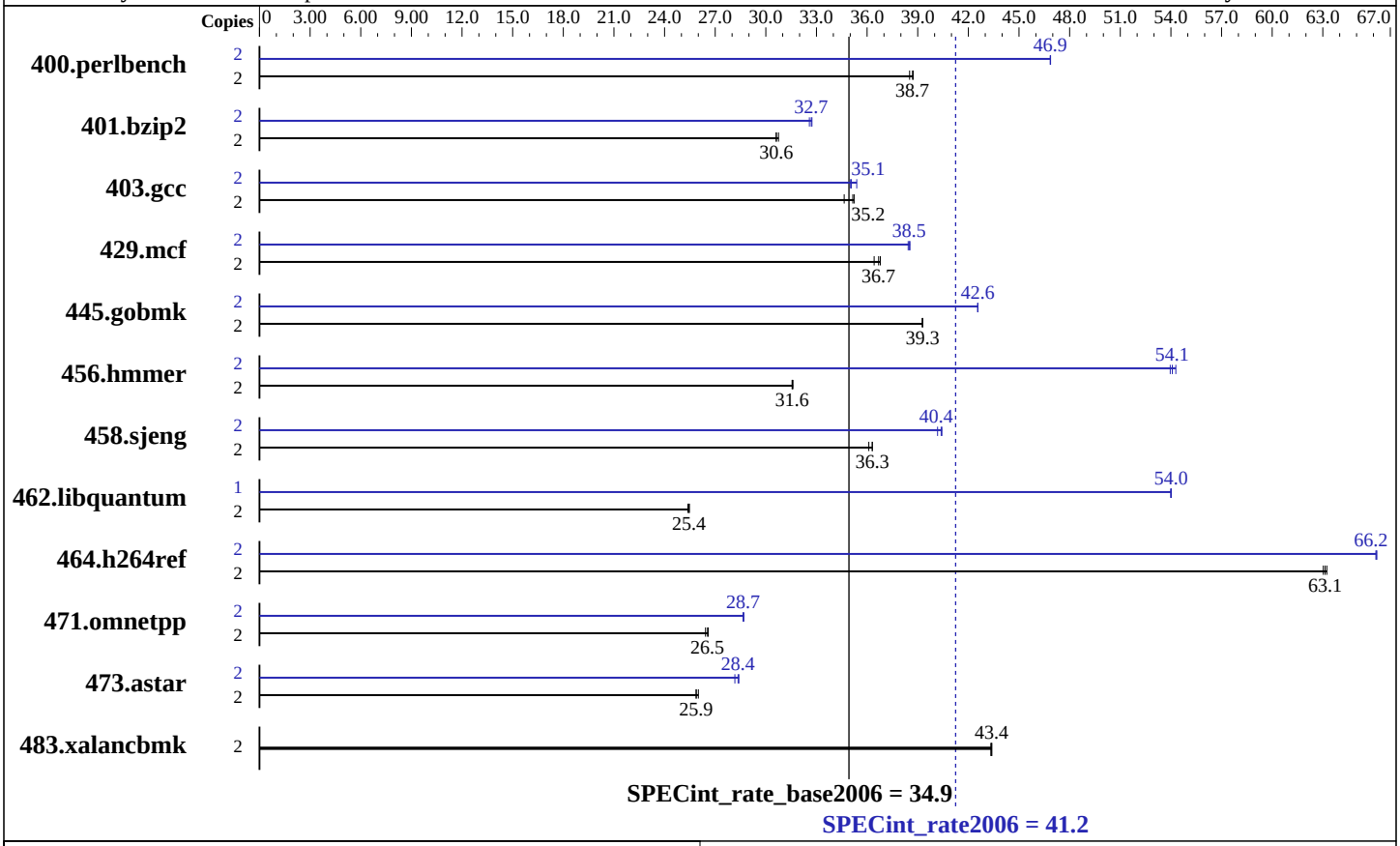
IBM BladeCenter HS12 (Intel Xeon E3113)

SPECint®_rate2006 = 41.2

SPECint_rate_base2006 = 34.9

CPU2006 license: 11
Test sponsor: IBM Corporation
Tested by: IBM Corporation

Test date: Apr-2008
Hardware Availability: Jun-2008
Software Availability: Nov-2007



Hardware

CPU Name:	Intel Xeon E3113
CPU Characteristics:	1333MHz system bus
CPU MHz:	3000
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip
CPU(s) orderable:	1 chip
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	6 MB I+D on chip per chip
L3 Cache:	None
Other Cache:	None
Memory:	8 GB (4 x 2 GB DDR2-5300 ECC)
Disk Subsystem:	1 x 73 GB SAS, 10000 RPM
Other Hardware:	None

Software

Operating System:	SuSE Linux Enterprise Server 10 (x86_64) SP1, Kernel 2.6.16.46-0.12-smp
Compiler:	Intel C++ Compiler 10.1 for Linux Build 20070913 Package ID: l_cc_p_10.1.008
Auto Parallel:	Yes
File System:	ReiserFS
System State:	Multi-user, run level 3
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	MicroQuill SmartHeap 8.1 Binutils 2.17.50.0.15

SPEC CINT2006 Result

IBM Corporation

IBM BladeCenter HS12 (Intel Xeon E3113)

SPECint_rate2006 = 41.2

SPECint_rate_base2006 = 34.9

CPU2006 license: 11
Test sponsor: IBM Corporation
Tested by: IBM Corporation

Test date: Apr-2008
Hardware Availability: Jun-2008
Software Availability: Nov-2007

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	2	504	38.7	**505**	**38.7**	507	38.5	2	**417**	**46.9**	417	46.8	417	46.9
401.bzip2	2	628	30.8	630	30.6	**630**	**30.6**	2	592	32.6	**590**	**32.7**	590	32.7
403.gcc	2	465	34.6	457	35.2	**458**	**35.2**	2	455	35.4	460	35.0	**459**	**35.1**
429.mcf	2	501	36.4	**497**	**36.7**	496	36.8	2	**474**	**38.5**	473	38.5	475	38.4
445.gobmk	2	534	39.3	**534**	**39.3**	534	39.3	2	493	42.6	**493**	**42.6**	493	42.6
456.hmmer	2	590	31.6	**591**	**31.6**	591	31.6	2	**345**	**54.1**	346	54.0	344	54.3
458.sjeng	2	670	36.1	667	36.3	**667**	**36.3**	2	602	40.2	599	40.4	**599**	**40.4**
462.libquantum	2	1633	25.4	**1628**	**25.4**	1627	25.5	1	**384**	**54.0**	384	54.0	384	54.0
464.h264ref	2	700	63.2	**701**	**63.1**	702	63.0	2	669	66.2	669	66.1	**669**	**66.2**
471.omnetpp	2	473	26.4	**471**	**26.5**	470	26.6	2	**436**	**28.7**	436	28.7	436	28.7
473.astar	2	540	26.0	543	25.9	**543**	**25.9**	2	**495**	**28.4**	498	28.2	494	28.4
483.xalancbmk	2	318	43.3	**318**	**43.4**	318	43.4	2	318	43.3	**318**	**43.4**	318	43.4

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

General Notes

```
All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmer,
for peak, are compiled in 64-bit mode
Hardware Sector Prefetch Enabled and Adjacent Sector Prefetch Enabled
OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to physical,0
KMP_STACKSIZE set to 64M
taskset utility used to bind CPU(s) to processes
```

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:
```
-fast -inline-calloc -opt-malloc-options=3
```

C++ benchmarks:
```
-xT -ipo -O3 -no-prec-div -Wl,-z,muldefs
-L/spec/users/rahul/cpu2006.1.0/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/cce/10.1.008/bin/icc
-L/opt/intel/cce/10.1.008/lib
-I/opt/intel/cce/10.1.008/include
```

456.hmmer:
```
/opt/intel/cce/10.1.008/bin/icc
-L/opt/intel/cce/10.1.008/lib
-I/opt/intel/cce/10.1.008/include
```

C++ benchmarks:
```
icpc
```

Peak Portability Flags

400.perlbench: `-DSPEC_CPU_LINUX_IA32`
401.bzip2: `-DSPEC_CPU_LP64`
456.hmmer: `-DSPEC_CPU_LP64`
462.libquantum: `-DSPEC_CPU_LINUX`
483.xalancbmk: `-DSPEC_CPU_LINUX`

Peak Optimization Flags

C benchmarks:

Continued on next page

Peak Optimization Flags (Continued)

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -fast -ansi-alias -prefetch

401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch

403.gcc: -fast -inline-calloc -opt-malloc-options=3

429.mcf: -fast -prefetch

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

456.hmmer: -fast -unroll2 -ansi-alias -opt-multi-version-aggressive

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4

462.libquantum: -fast -unroll4 -Ob0 -prefetch -opt-streaming-stores always -vec-guard-write -opt-malloc-options=3 -parallel -par-runtime-control

464.h264ref: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo -no-prec-div -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs -L/spec/users/rahul/cpu2006.1.0/lib -lsmartheap

473.astar: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo -no-prec-div -ansi-alias -opt-ra-region-strategy=routine -Wl,-z,muldefs -L/spec/users/rahul/cpu2006.1.0/lib -lsmartheap

483.xalancbmk: 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-ic10.1-int-linux64-revC.20090713.html

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic10.1-int-linux64-revC.20090713.xml`

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.0.
Report generated on Tue Jul 22 17:05:04 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 27 May 2008.