



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint®_rate2006 = 145

IBM System x3850 M2 (Intel Xeon E7320)

SPECint_rate_base2006 = 136

CPU2006 license: 11

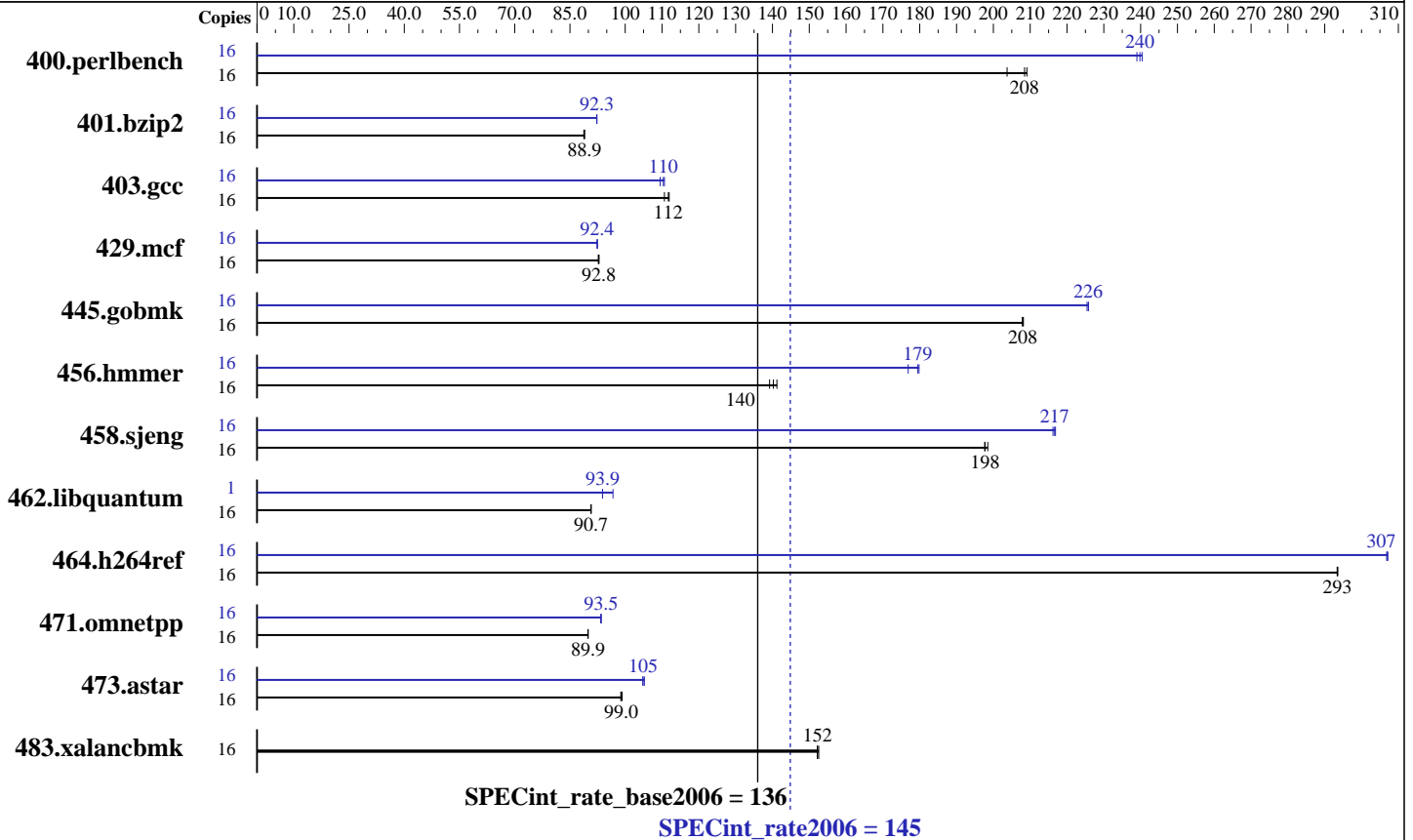
Test date: Aug-2007

Test sponsor: IBM Corporation

Hardware Availability: Nov-2007

Tested by: IBM Corporation

Software Availability: Nov-2007



Hardware

CPU Name: Intel Xeon E7320
 CPU Characteristics: Quad Core, 2.13 GHz
 CPU MHz: 2133
 FPU: Integrated
 CPU(s) enabled: 16 cores, 4 chips, 4 cores/chip
 CPU(s) orderable: 1,2,4 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 4 MB I+D on chip per chip, 2 MB shared / 2 cores
 L3 Cache: None
 Other Cache: None
 Memory: 64 GB (16 * 4GB DDR2-5300 ECC)
 Disk Subsystem: 73 GB SAS, 10k RPM
 Other Hardware: None

Software

Operating System: SLES 10 SP1 (x86_64), 2.6.16.46-0.12-smp
 Compiler: Intel C++ Compiler for Linux32 and Linux64 version 10.1 Build 20070725
 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



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 145

IBM System x3850 M2 (Intel Xeon E7320)

SPECint_rate_base2006 = 136

CPU2006 license: 11

Test date: Aug-2007

Test sponsor: IBM Corporation

Hardware Availability: Nov-2007

Tested by: IBM Corporation

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	16	767	204	<u>750</u>	<u>208</u>	748	209	16	654	239	<u>652</u>	<u>240</u>	650	240
401.bzip2	16	1739	88.8	1736	89.0	<u>1736</u>	<u>88.9</u>	16	<u>1673</u>	<u>92.3</u>	1673	92.3	1673	92.3
403.gcc	16	1164	111	<u>1153</u>	<u>112</u>	1151	112	16	<u>1167</u>	<u>110</u>	1176	109	1164	111
429.mcf	16	1571	92.9	<u>1572</u>	<u>92.8</u>	1574	92.7	16	1580	92.4	<u>1579</u>	<u>92.4</u>	1579	92.4
445.gobmk	16	806	208	<u>807</u>	<u>208</u>	807	208	16	744	225	<u>743</u>	<u>226</u>	743	226
456.hmmer	16	1057	141	1072	139	<u>1064</u>	<u>140</u>	16	<u>832</u>	<u>179</u>	844	177	830	180
458.sjeng	16	980	198	975	198	<u>979</u>	<u>198</u>	16	893	217	895	216	<u>894</u>	<u>217</u>
462.libquantum	16	<u>3654</u>	<u>90.7</u>	3653	90.8	3656	90.7	1	214	96.7	221	93.8	<u>221</u>	<u>93.9</u>
464.h264ref	16	1207	293	1206	294	<u>1207</u>	<u>293</u>	16	1154	307	1153	307	<u>1153</u>	<u>307</u>
471.omnetpp	16	1112	89.9	1112	89.9	<u>1112</u>	<u>89.9</u>	16	1070	93.5	1071	93.4	<u>1070</u>	<u>93.5</u>
473.astar	16	<u>1135</u>	<u>99.0</u>	1133	99.2	1137	98.8	16	1072	105	<u>1071</u>	<u>105</u>	1067	105
483.xalancbmk	16	<u>725</u>	<u>152</u>	725	152	724	153	16	<u>725</u>	<u>152</u>	725	152	724	153

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

General Notes

Bios settings:
Hardware Prefetcher: Disabled
Adjacent Sector Prefetch: Disabled
All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmer,
for peak, are compiled in 64-bit mode
OMP_NUM_THREADS set to number of core
KMP_AFFINITY set to physical,0
KMP_STACK_SIZE set to 64M

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



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 145

IBM System x3850 M2 (Intel Xeon E7320)

SPECint_rate_base2006 = 136

CPU2006 license: 11

Test date: Aug-2007

Test sponsor: IBM Corporation

Hardware Availability: Nov-2007

Tested by: IBM Corporation

Software Availability: Nov-2007

Base Optimization Flags

C benchmarks:

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

C++ benchmarks:

-xT -ipo -O3 -no-prec-div -Wl,-z,muldefs
-L/home/cmplr/usr3/alrahate/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: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/bin/icc
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/include

456.hmmer: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/bin/icc
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/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



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 145

IBM System x3850 M2 (Intel Xeon E7320)

SPECint_rate_base2006 = 136

CPU2006 license: 11

Test date: Aug-2007

Test sponsor: IBM Corporation

Hardware Availability: Nov-2007

Tested by: IBM Corporation

Software Availability: Nov-2007

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.hmmr: -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/home/cmplr/usr3/alrahate/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/home/cmplr/usr3/alrahate/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-ia32-intel64-linux-flags.20090714.37.html>



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 145

IBM System x3850 M2 (Intel Xeon E7320)

SPECint_rate_base2006 = 136

CPU2006 license: 11

Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Aug-2007

Hardware Availability: Nov-2007

Software Availability: Nov-2007

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.37.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.

Tested with SPEC CPU2006 v1.0.1.
Report generated on Tue Jul 22 14:09:27 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 20 December 2007.