



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

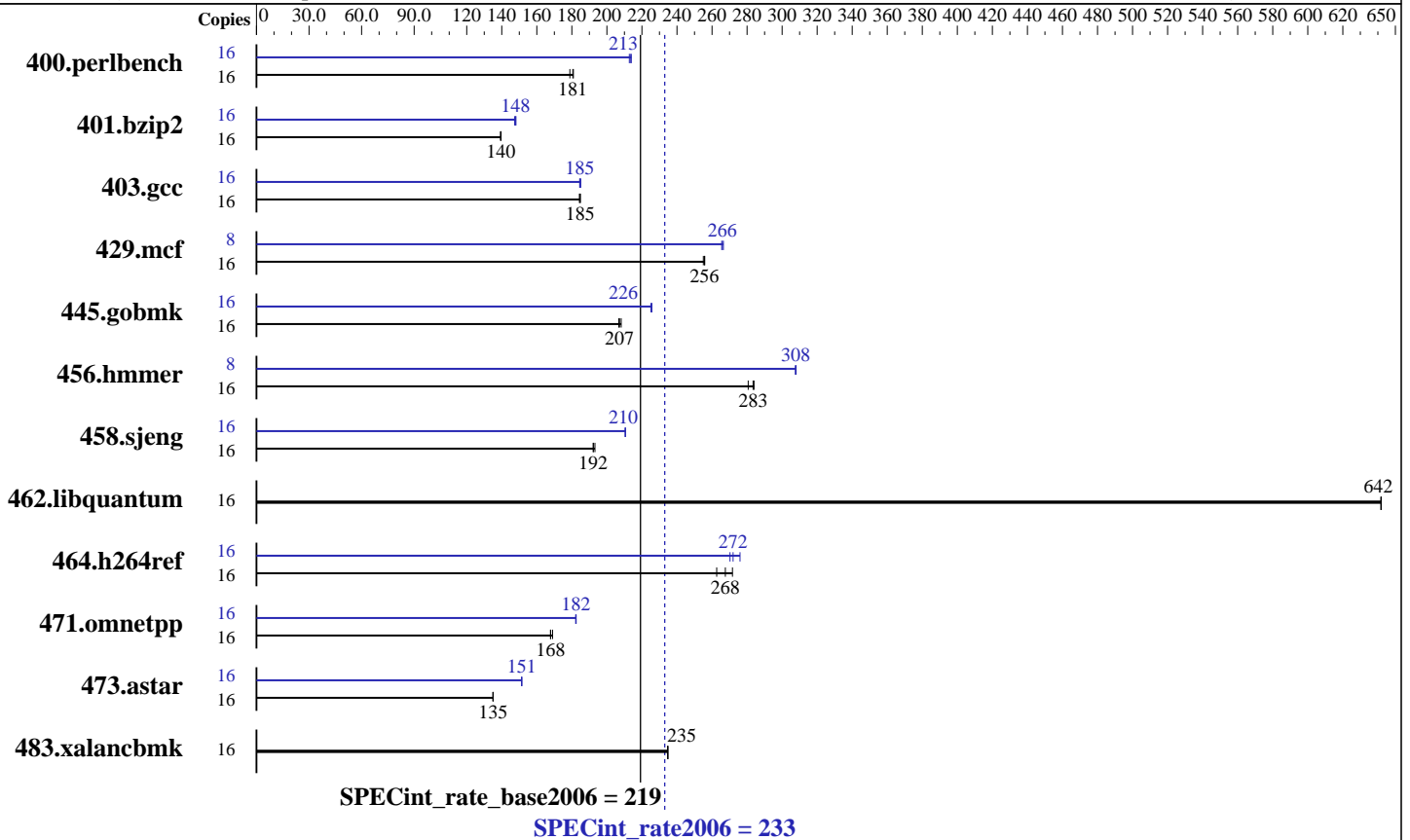
SPECint®_rate2006 = 233

IBM System x3500 M3 (Intel Xeon E5640)

SPECint_rate_base2006 = 219

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

Test date: Apr-2010
 Hardware Availability: Jun-2010
 Software Availability: Jan-2010



Hardware

CPU Name: Intel Xeon E5640
 CPU Characteristics: Intel Turbo Boost Technology up to 2.93 GHz
 CPU MHz: 2667
 FPU: Integrated
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip, 2 threads/core
 CPU(s) orderable: 1,2 chip
 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 (12 x 4 GB PC3-10600R CL9, 2 Rank)
 Disk Subsystem: 1 x 73 GB SAS, 15000 RPM
 Other Hardware: None

Software

Operating System: SuSe Linux Enterprise Server 11 (x86_64), Kernel 2.6.27.19-5-default
 Compiler: Intel C++ Professional Compiler for IA32 and Intel 64, Version 11.1 Build 20091130 Package ID: l_cproc_p_11.1.064
 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 V8.1



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 233

IBM System x3500 M3 (Intel Xeon E5640)

SPECint_rate_base2006 = 219

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

Test date: Apr-2010
Hardware Availability: Jun-2010
Software Availability: Jan-2010

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	16	866	181	864	181	874	179	16	735	213	733	213	731	214
401.bzip2	16	1107	140	1109	139	1106	140	16	1043	148	1044	148	1048	147
403.gcc	16	697	185	697	185	699	184	16	698	184	696	185	698	185
429.mcf	16	571	256	570	256	572	255	8	274	266	275	266	274	266
445.gobmk	16	812	207	810	207	806	208	16	744	226	744	226	746	225
456.hammer	16	526	284	527	283	532	281	8	242	308	243	308	243	308
458.sjeng	16	1007	192	1007	192	1002	193	16	919	211	920	210	920	210
462.libquantum	16	517	642	516	642	516	642	16	517	642	516	642	516	642
464.h264ref	16	1303	272	1323	268	1348	263	16	1302	272	1283	276	1310	270
471.omnetpp	16	596	168	596	168	592	169	16	549	182	549	182	548	182
473.astar	16	832	135	832	135	832	135	16	742	151	742	151	742	151
483.xalancbmk	16	470	235	470	235	470	235	16	470	235	470	235	470	235

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.
numactl was used to bind copies to the cores

Platform Notes

Turbo Mode Enable
Turbo Boost set to Traditional
CPU C State Enable
Data Reuse Disable

General Notes

Binaries were compiled on SLES 10 with Binutils 2.18.50.0.7.20080502
'ulimit -s unlimited' was used to set the stack size to unlimited prior to run

Base Compiler Invocation

C benchmarks:
icc -m32

C++ benchmarks:
icpc -m32



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 233

IBM System x3500 M3 (Intel Xeon E5640)

SPECint_rate_base2006 = 219

CPU2006 license: 11

Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Apr-2010

Hardware Availability: Jun-2010

Software Availability: Jan-2010

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 -static -opt-prefetch

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-32bit -lsmartheap

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m32

401.bzip2: icc -m64

456.hmmer: icc -m64

458.sjeng: icc -m64

C++ benchmarks (except as noted below):

icpc -m32

473.astar: icpc -m64

Peak Portability Flags

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

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 233

IBM System x3500 M3 (Intel Xeon E5640)

SPECint_rate_base2006 = 219

CPU2006 license: 11

Test date: Apr-2010

Test sponsor: IBM Corporation

Hardware Availability: Jun-2010

Tested by: IBM Corporation

Software Availability: Jan-2010

Peak Portability Flags (Continued)

462.libquantum: -DSPEC_CPU_LINUX
473.astar: -DSPEC_CPU_LP64
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) -static(pass 2)
-prof-use(pass 2) -ansi-alias

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -static(pass 2)
-prof-use(pass 2) -opt-prefetch -ansi-alias -auto-ilp32

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

429.mcf: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

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

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

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -static(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) -static(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/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-32bit -lsmartheap

473.astar: -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=routine -Wl,-z,muldefs
-L/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-64bit -lsmartheap64

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 233

IBM System x3500 M3 (Intel Xeon E5640)

SPECint_rate_base2006 = 219

CPU2006 license: 11

Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Apr-2010

Hardware Availability: Jun-2010

Software Availability: Jan-2010

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-ic11.1-linux64-revE.20100601.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100601.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 v1.1.
Report generated on Wed Jul 23 08:39:27 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 18 June 2010.