



SPEC[®] CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint[®]_rate2006 = 123

IBM System x3200 M3 (Intel Xeon X3470)

SPECint_rate_base2006 = 114

CPU2006 license: 11

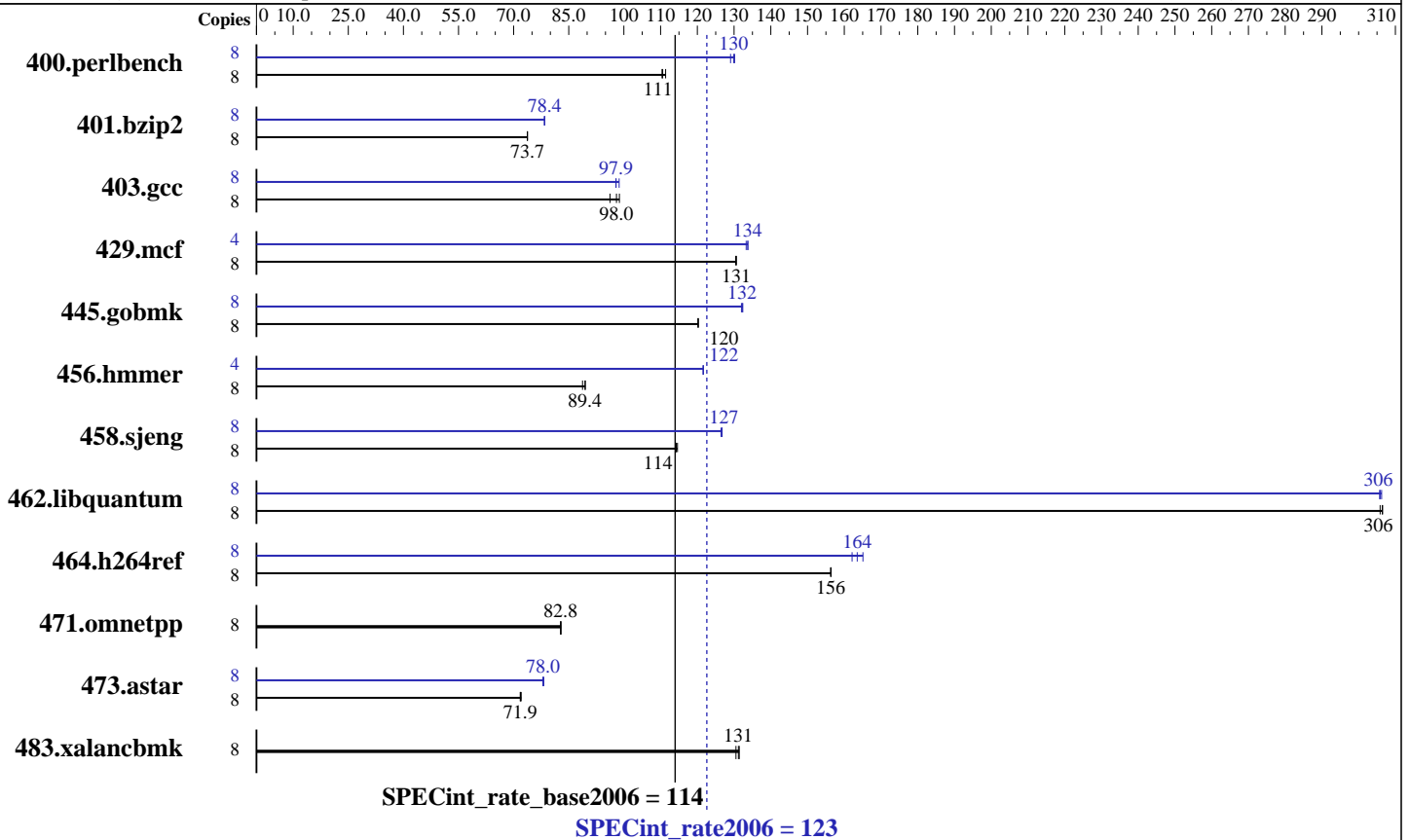
Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Sep-2009

Hardware Availability: Oct-2009

Software Availability: Feb-2009



Hardware

CPU Name: Intel Xeon X3470
 CPU Characteristics: Intel Turbo Boost Technology up to 3.6 GHz
 CPU MHz: 2933
 FPU: Integrated
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip, 2 threads/core
 CPU(s) orderable: 1 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: 8 MB I+D on chip per chip
 Other Cache: None
 Memory: 16 GB(4 x 4 GB PC3-10600R)
 Disk Subsystem: 1 x 250 GB SATA, 7200 RPM
 Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Server 11(x86_64), Kernel 2.6.27.19-5-default
 Compiler: Intel C++ Compiler 11.0 for Linux Build 20090131 Package ID: l_cproc_p_11.0.080
 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 Binutils 2.18.50.0.7.20080502



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 123

IBM System x3200 M3 (Intel Xeon X3470)

SPECint_rate_base2006 = 114

CPU2006 license: 11

Test date: Sep-2009

Test sponsor: IBM Corporation

Hardware Availability: Oct-2009

Tested by: IBM Corporation

Software Availability: Feb-2009

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	<u>707</u>	<u>111</u>	708	110	702	111	8	606	129	<u>602</u>	<u>130</u>	601	130
401.bzip2	8	1047	73.8	<u>1047</u>	<u>73.7</u>	1047	73.7	8	<u>984</u>	<u>78.4</u>	984	78.4	985	78.4
403.gcc	8	652	98.8	669	96.2	<u>657</u>	<u>98.0</u>	8	<u>658</u>	<u>97.9</u>	652	98.7	658	97.9
429.mcf	8	<u>559</u>	<u>131</u>	559	130	559	131	4	<u>273</u>	<u>134</u>	273	134	274	133
445.gobmk	8	698	120	<u>698</u>	<u>120</u>	698	120	8	634	132	636	132	<u>635</u>	<u>132</u>
456.hammer	8	834	89.5	<u>835</u>	<u>89.4</u>	841	88.8	4	307	122	<u>307</u>	<u>122</u>	307	122
458.sjeng	8	<u>847</u>	<u>114</u>	845	115	847	114	8	764	127	766	126	<u>764</u>	<u>127</u>
462.libquantum	8	<u>541</u>	<u>306</u>	541	307	542	306	8	542	306	<u>542</u>	<u>306</u>	541	306
464.h264ref	8	1132	156	<u>1132</u>	<u>156</u>	1132	156	8	1072	165	1092	162	<u>1083</u>	<u>164</u>
471.omnetpp	8	603	82.9	604	82.8	<u>604</u>	<u>82.8</u>	8	603	82.9	604	82.8	<u>604</u>	<u>82.8</u>
473.astar	8	779	72.1	<u>782</u>	<u>71.9</u>	782	71.8	8	718	78.2	720	78.0	<u>720</u>	<u>78.0</u>
483.xalancbmk	8	<u>421</u>	<u>131</u>	420	131	423	131	8	<u>421</u>	<u>131</u>	420	131	423	131

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

General Notes

CPU C-States Enable and Adjacent Sector Prefetch Enable
Turbo Mode Enable

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 = 123

IBM System x3200 M3 (Intel Xeon X3470)

SPECint_rate_base2006 = 114

CPU2006 license: 11

Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Sep-2009

Hardware Availability: Oct-2009

Software Availability: Feb-2009

Base Optimization Flags

C benchmarks:

```
-xSSE4.2 -ipo -O3 -no-prec-div -static -inline-calloc  
-opt-malloc-options=3 -opt-prefetch
```

C++ benchmarks:

```
-xSSE4.2 -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/11.0/080/bin/intel64/icc
```

```
456.hmmer: /opt/intel/Compiler/11.0/080/bin/intel64/icc
```

```
458.sjeng: /opt/intel/Compiler/11.0/080/bin/intel64/icc
```

C++ benchmarks (except as noted below):

icpc

```
473.astar: /opt/intel/Compiler/11.0/080/bin/intel64/icpc
```

Peak Portability Flags

```
400.perlbench: -DSPEC_CPU_LINUX_IA32
```

```
401.bzip2: -DSPEC_CPU_LP64
```

```
456.hmmer: -DSPEC_CPU_LP64
```

```
458.sjeng: -DSPEC_CPU_LP64
```

```
462.libquantum: -DSPEC_CPU_LINUX
```

```
473.astar: -DSPEC_CPU_LP64
```

```
483.xalancbmk: -DSPEC_CPU_LINUX
```



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 123

IBM System x3200 M3 (Intel Xeon X3470)

SPECint_rate_base2006 = 114

CPU2006 license: 11

Test date: Sep-2009

Test sponsor: IBM Corporation

Hardware Availability: Oct-2009

Tested by: IBM Corporation

Software Availability: Feb-2009

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 -opt-prefetch

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 -inline-alloc
 -opt-malloc-options=3

429.mcf: -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

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: -xSSE4.2 -ipo -O3 -no-prec-div -static
 -opt-malloc-options=3 -opt-prefetch

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: basepeak = yes

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 -auto-ilp32
 -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmarheap64

483.xalancbmk: basepeak = yes



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECint_rate2006 = 123

IBM System x3200 M3 (Intel Xeon X3470)

SPECint_rate_base2006 = 114

CPU2006 license: 11

Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Sep-2009

Hardware Availability: Oct-2009

Software Availability: Feb-2009

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-ic11.0-int-linux64-revA.20091002.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20091002.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 Tue Sep 23 18:32:58 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 2 October 2009.