SPEC® CINT2006 Result

Supermicro

(Test Sponsor: Intel Corporation)

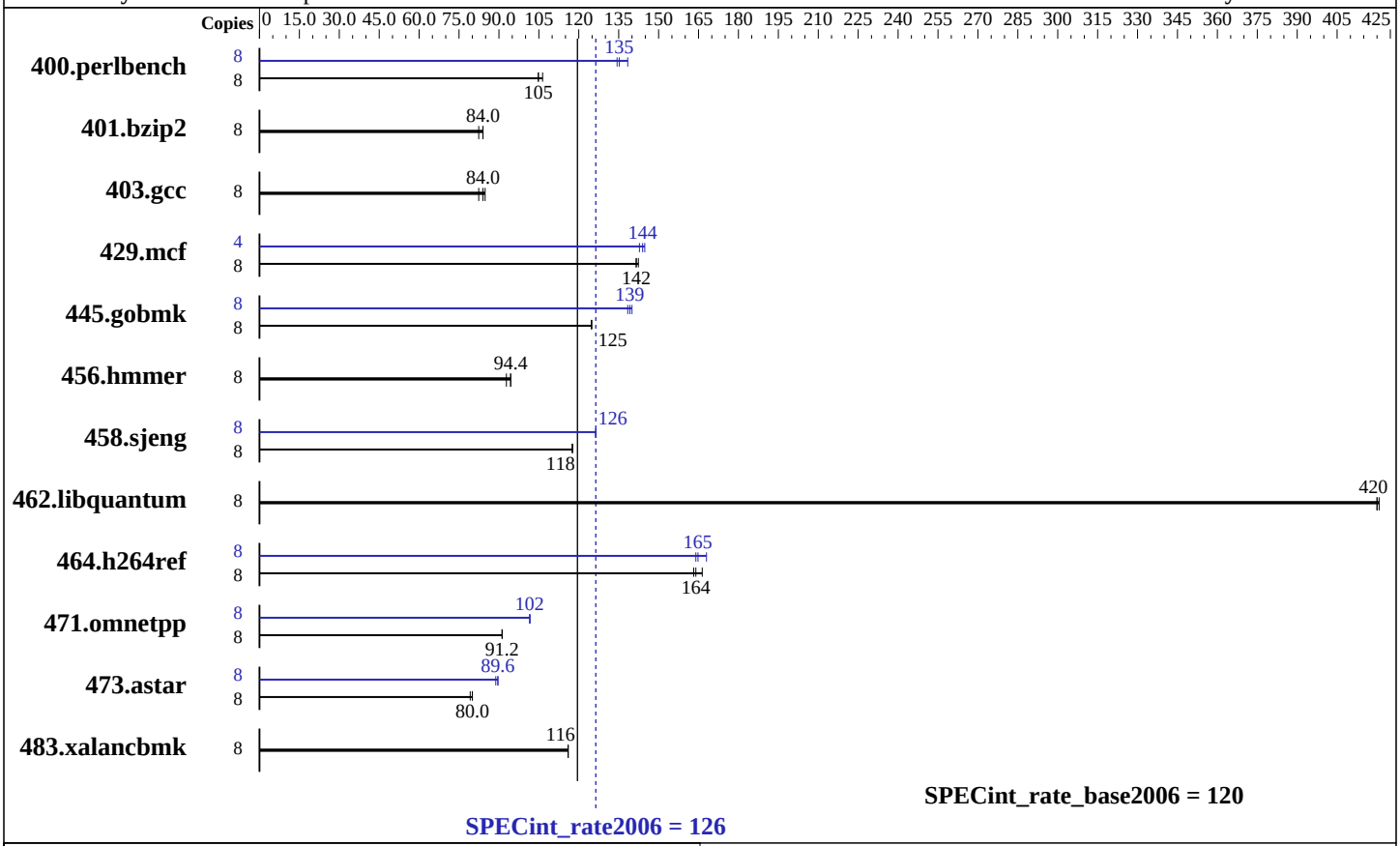
Supermicro X8DAI (Intel Xeon W3570, 3.2 GHz)

SPECint®_rate2006 = 126

SPECint_rate_base2006 = 120

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation

Test date: Mar-2009
Hardware Availability: Mar-2009
Software Availability: Nov-2007



Hardware

CPU Name:	Intel Xeon W3570
CPU Characteristics:	Intel Turbo Boost Technology up to 3.46 GHz
CPU MHz:	3200
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 4 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:	8 MB I+D on chip per chip
Other Cache:	None
Memory:	12 GB (3 x 4GB DDR3-1333 CL9, IMHH4GP12A1F1C-13H T2)
Disk Subsystem:	Western Digital Raptor WD740, 10k rpm, 74GB SATA
Other Hardware:	None

Software

Operating System:	Windows* XP* Professional x64 Edition SP2 Build 3790
Compiler:	Intel C++ Compiler Professional 11.0 for IA32 Build 20090131 Package ID: w_cproc_p_11.0.072 Microsoft Visual Studio 2008 Professional SP1 (for libraries)
Auto Parallel:	No
File System:	NTFS
System State:	Default
Base Pointers:	32-bit
Peak Pointers:	32-bit
Other Software:	SmartHeap Library Version 8.1 from http://www.microquill.com/

SPEC CINT2006 Result

Supermicro
(Test Sponsor: Intel Corporation)

Supermicro X8DAI (Intel Xeon W3570, 3.2 GHz)

SPECint_rate2006 = 126

SPECint_rate_base2006 = 120

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation

Test date: Mar-2009
Hardware Availability: Mar-2009
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	8	736	106	**745**	**105**	746	105	8	565	138	580	134	**580**	**135**
401.bzip2	8	935	82.4	922	84.0	**923**	**84.0**	8	935	82.4	922	84.0	**923**	**84.0**
403.gcc	8	778	82.4	**764**	**84.0**	763	84.8	8	778	82.4	**764**	**84.0**	763	84.8
429.mcf	8	**516**	**142**	516	142	512	142	4	**254**	**144**	255	143	252	145
445.gobmk	8	671	125	**671**	**125**	672	125	8	605	138	**604**	**139**	601	140
456.hmmer	8	**791**	**94.4**	790	94.4	802	92.8	8	**791**	**94.4**	790	94.4	802	92.8
458.sjeng	8	**822**	**118**	822	118	823	118	8	764	126	764	126	**764**	**126**
462.libquantum	8	**395**	**420**	395	420	394	421	8	**395**	**420**	395	420	394	421
464.h264ref	8	1066	166	1082	163	**1078**	**164**	8	**1076**	**165**	1053	168	1077	164
471.omnetpp	8	**548**	**91.2**	547	91.2	548	91.2	8	**493**	**102**	493	102	493	102
473.astar	8	**703**	**80.0**	702	80.0	707	79.2	8	630	88.8	627	89.6	**628**	**89.6**
483.xalancbmk	8	**477**	**116**	477	116	477	116	8	**477**	**116**	477	116	477	116

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.
the start command with /affinity was used to bind copies to cores
```

General Notes

```
System can be built with an extended ATX case like SuperChassis
743TQ-865B-SQ and an 885W power supply.
This result is a 32-bit result and the -DSPEC_CPU_WIN64 portability flag
for 471.omnetpp is not required.  However, this portability flag did not
affect the generated code since one needs -DSPEC_CPU_P64 defined for the
-DSPEC_CPU_WIN64 flag to have any effect.
Given that the use of -DSPEC_CPU_WIN64 did not affect the generated code,
SPEC has decided to allow this publication but will disallow future
publications that use this flag for a 32-bit submission.
```

Base Compiler Invocation

C benchmarks:

```
icl -Qvc9 -Qstd=c99
```

C++ benchmarks:

```
icl -Qvc9
```

Base Portability Flags

403.gcc: `-DSPEC_CPU_WIN32`
464.h264ref: `-DWIN32 -DSPEC_CPU_NO_INTTYPES`
471.omnetpp: `-DSPEC_CPU_WIN64`
483.xalancbmk: `-Qoption,cpp,--no_wchar_t_keyword`

Base Optimization Flags

C benchmarks:
`-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000`

C++ benchmarks:
`-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qcxx-features /F512000000 shlW32m.lib -link /FORCE:MULTIPLE`

Base Other Flags

C benchmarks:

403.gcc: `-Dalloca=_alloca`

Peak Compiler Invocation

C benchmarks:
`icl -Qvc9 -Qstd=c99`

C++ benchmarks:
`icl -Qvc9`

Peak Portability Flags

403.gcc: `-DSPEC_CPU_WIN32`
464.h264ref: `-DWIN32 -DSPEC_CPU_NO_INTTYPES`
471.omnetpp: `-DSPEC_CPU_WIN64`
483.xalancbmk: `-Qoption,cpp,--no_wchar_t_keyword`

Peak Optimization Flags

C benchmarks:

Continued on next page

Peak Optimization Flags (Continued)

400.perlbench: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch
/F512000000 shlW32m.lib -link /FORCE:MULTIPLE

401.bzip2: basepeak = yes

403.gcc: basepeak = yes

429.mcf: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch
/F512000000

445.gobmk: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O2 -Qprec-div- -Qansi-alias /F512000000

456.hmmer: basepeak = yes

458.sjeng: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll4 /F512000000

462.libquantum: basepeak = yes

464.h264ref: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias /F512000000

C++ benchmarks:

471.omnetpp: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qansi-alias
-Qopt-ra-region-strategy=block /F512000000 shlW32m.lib
-link /FORCE:MULTIPLE

473.astar: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qansi-alias
-Qopt-ra-region-strategy=routine /F512000000 shlW32m.lib
-link /FORCE:MULTIPLE

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-ic11.0-win32-revA.20100310.html

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic11.0-win32-revA.20100310.xml`

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 Jul 22 23:28:40 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 31 March 2009.