



# SPEC® CINT2006 Result

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## Intel Corporation

SPECint®\_rate2006 = 58.3

Intel DQ45CB motherboard (Intel Core 2 Quad Q8300)

SPECint\_rate\_base2006 = 56.3

CPU2006 license: 13

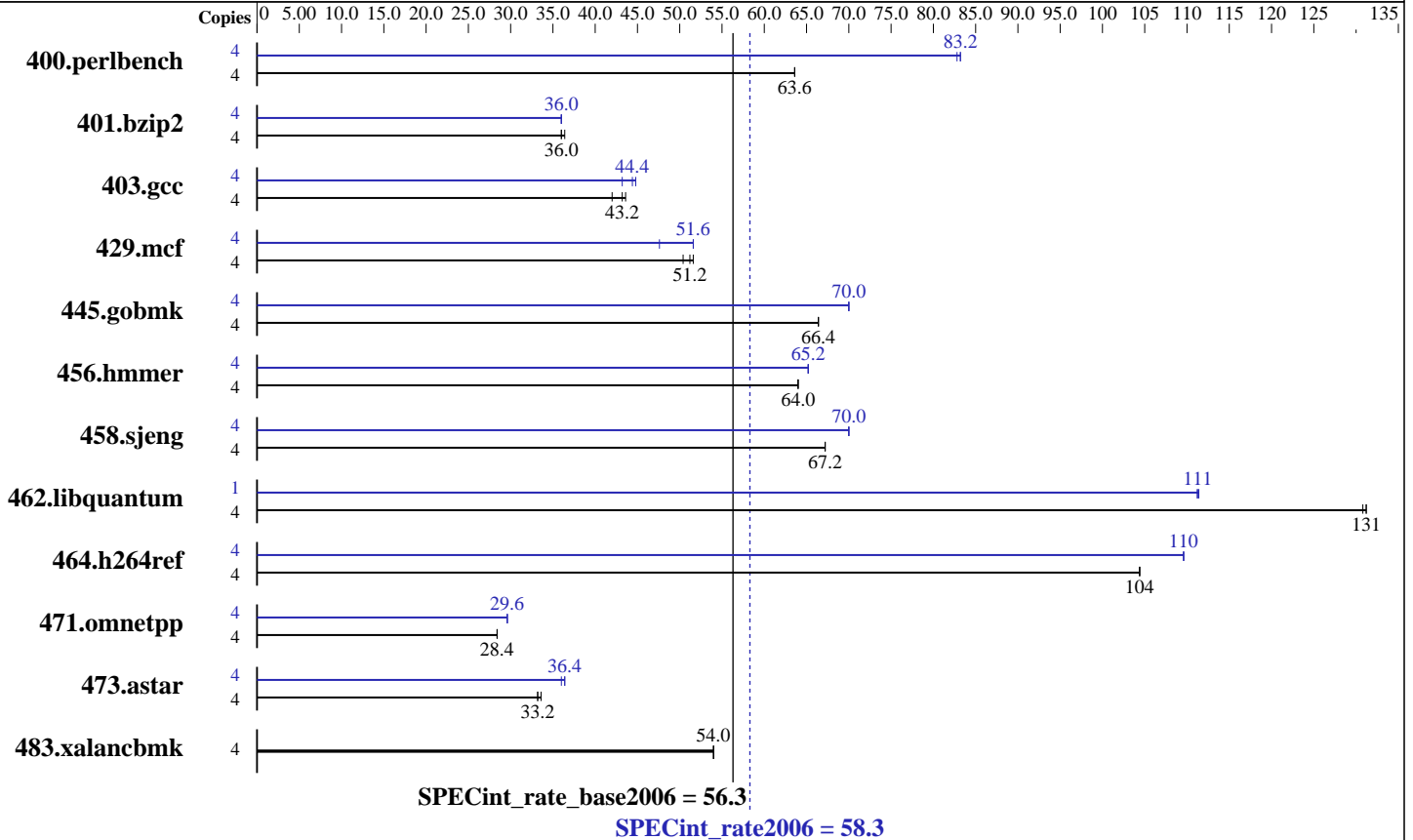
Test date: Apr-2009

Test sponsor: Intel Corporation

Hardware Availability: May-2009

Tested by: Intel Corporation

Software Availability: Nov-2008



### Hardware

CPU Name: Intel Core 2 Quad Q8300  
 CPU Characteristics:  
 CPU MHz: 2500  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip  
 CPU(s) orderable: 1 chip  
 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: 4 GB (4x1GB DDR2-800 CL5)  
 Disk Subsystem: Seagate 320 GB SATA, 7200RPM  
 Other Hardware: None

### Software

Operating System: Windows Vista Ultimate w/ SP1 (64-bit)  
 Compiler: Intel C++ Compiler Professional 11.0 for IA32  
 Build 20080930 Package ID: w\_cproc\_p\_11.0.054  
 Microsoft Visual Studio 2008 (for libraries)  
 Auto Parallel: Yes  
 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/>



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## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	4	<b>616</b>	<b>63.6</b>	616	63.6	616	63.6	4	471	82.8	470	83.2	<b>470</b>	<b>83.2</b>
401.bzip2	4	<b>1068</b>	<b>36.0</b>	1074	36.0	1062	36.4	4	1067	36.0	1076	36.0	<b>1073</b>	<b>36.0</b>
403.gcc	4	770	42.0	<b>742</b>	<b>43.2</b>	742	43.6	4	747	43.2	<b>728</b>	<b>44.4</b>	721	44.8
429.mcf	4	<b>711</b>	<b>51.2</b>	709	51.6	725	50.4	4	769	47.6	<b>709</b>	<b>51.6</b>	707	51.6
445.gobmk	4	631	66.4	<b>631</b>	<b>66.4</b>	630	66.4	4	<b>599</b>	<b>70.0</b>	598	70.0	601	70.0
456.hammer	4	583	64.0	<b>583</b>	<b>64.0</b>	583	64.0	4	573	65.2	<b>573</b>	<b>65.2</b>	573	65.2
458.sjeng	4	<b>720</b>	<b>67.2</b>	720	67.2	720	67.2	4	<b>691</b>	<b>70.0</b>	691	70.0	690	70.0
462.libquantum	4	<b>632</b>	<b>131</b>	633	131	631	131	1	186	111	186	111	<b>186</b>	<b>111</b>
464.h264ref	4	847	104	846	104	<b>847</b>	<b>104</b>	4	808	110	807	110	<b>808</b>	<b>110</b>
471.omnetpp	4	<b>879</b>	<b>28.4</b>	879	28.4	880	28.4	4	840	29.6	841	29.6	<b>841</b>	<b>29.6</b>
473.astar	4	<b>842</b>	<b>33.2</b>	842	33.2	841	33.6	4	<b>775</b>	<b>36.4</b>	776	36.0	774	36.4
483.xalancbmk	4	512	54.0	511	54.0	<b>512</b>	<b>54.0</b>	4	512	54.0	511	54.0	<b>512</b>	<b>54.0</b>

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.

## General Notes

Tested systems can be used with Shin-G ATX case,  
 Antec Truepower Trio power supply TP3-650  
 Binaries were built on Windows Vista Ultimate (32-bit)  
 Binaries were built on Windows Vista Ultimate (32-bit)  
 OMP\_NUM\_THREADS set to number of logical processors as seen by the OS  
 KMP\_AFFINITY set to physical,0  
 submit disabled for 462.libquantum peak

## Base Compiler Invocation

C benchmarks:  
 icl -Qvc9 -Qc99

C++ benchmarks:  
 icl -Qvc9



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## Base Portability Flags

403.gcc: -DSPEC\_CPU\_WIN32  
464.h264ref: -DSPEC\_CPU\_NO\_INTTYPES -DWIN32  
483.xalancbmk: -Qoption,cpp,--no\_wchar\_t\_keyword

## Base Optimization Flags

C benchmarks:

-QxSSE4.1 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000

C++ benchmarks:

-QxSSE4.1 -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 -Qc99

C++ benchmarks:

icl -Qvc9

## Peak Portability Flags

403.gcc: -DSPEC\_CPU\_WIN32  
464.h264ref: -DSPEC\_CPU\_NO\_INTTYPES -DWIN32  
483.xalancbmk: -Qoption,cpp,--no\_wchar\_t\_keyword

## Peak Optimization Flags

C benchmarks:

400.perlbench: -QxSSE4.1(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch  
/F512000000 shlw32m.lib -link /FORCE:MULTIPLE

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## Peak Optimization Flags (Continued)

401.bzp2: -QxSSE4.1(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qopt-prefetch -Qansi-alias  
/F512000000

403.gcc: -QxSSE4.1(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000

429.mcf: -QxSSE4.1 -Qipo -O3 -Qprec-div- -Qopt-prefetch  
/F512000000

445.gobmk: -QxSSE4.1(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O2 -Qprec-div- -Qansi-alias /F512000000

456.hmmer: -QxSSE4.1 -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias  
/F512000000

458.sjeng: -QxSSE4.1(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll4 /F512000000

462.libquantum: -QxSSE4.1 -Qipo -O3 -Qprec-div- -Qopt-prefetch  
-Qparallel -Qpar-runtime-control -Qvec-guard-write  
/F512000000

464.h264ref: -QxSSE4.1(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias /F512000000

C++ benchmarks:

471.omnetpp: -QxSSE4.1(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: -QxSSE4.1(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



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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.20090710.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.20090710.xml>

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For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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