



# SPEC® CINT2006 Result

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## Intel Corporation

Asus P5E3 Pro motherboard (Intel Core 2 Extreme QX9770)

SPECint®\_rate2006 = 85.5

SPECint\_rate\_base2006 = 81.0

CPU2006 license: 13

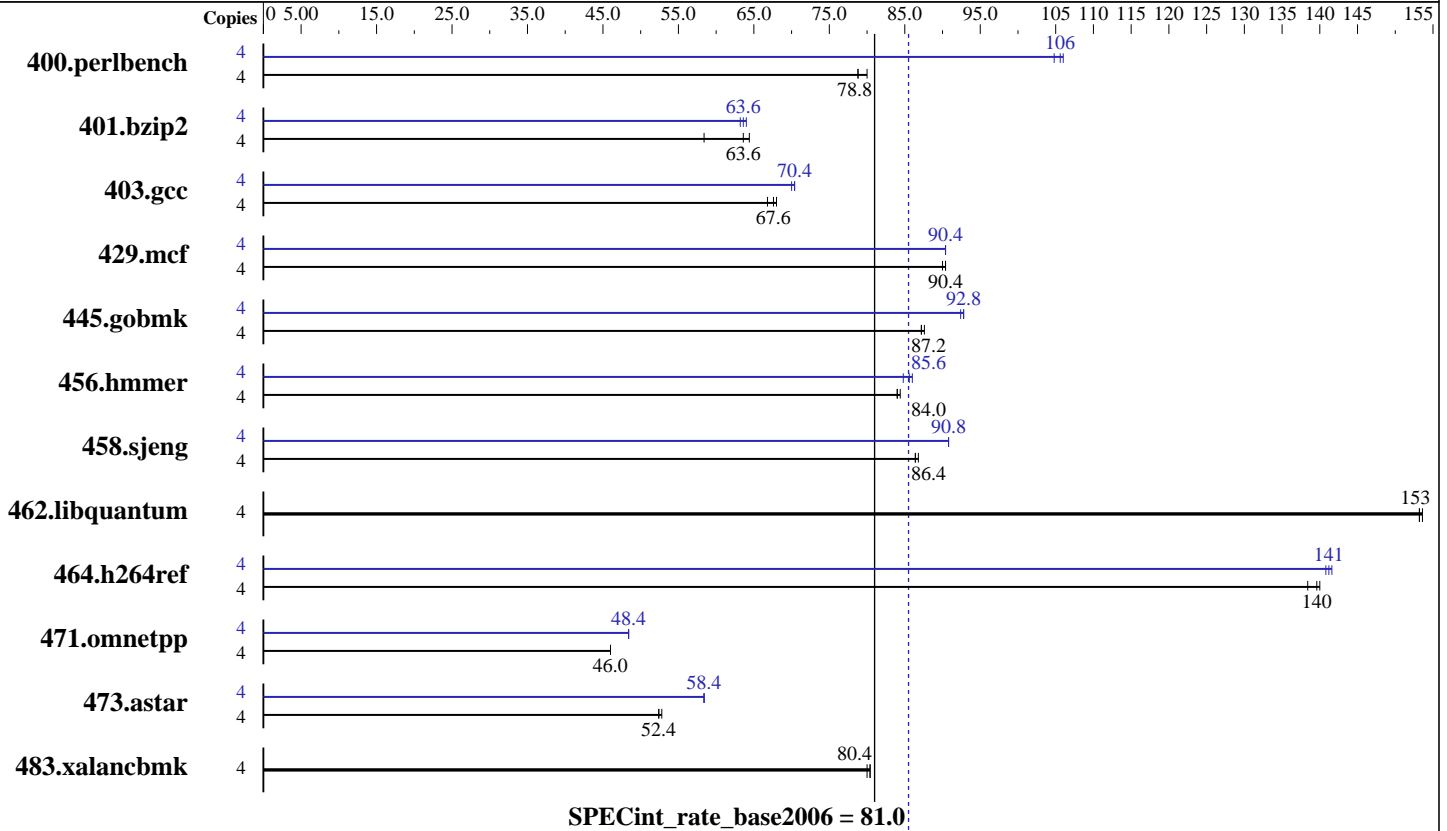
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Feb-2010

Hardware Availability: Jun-2009

Software Availability: Oct-2009



SPECint\_rate\_base2006 = 81.0

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### Hardware

CPU Name: Intel Core 2 Extreme QX9770  
 CPU Characteristics:  
 CPU MHz: 3200  
 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: 12 MB I+D on chip per chip, 6 MB shared / 2 cores  
 L3 Cache: None  
 Other Cache: None  
 Memory: 4 GB (2x2GB Micron MT16JTF25664AZ-1G4 DDR3-1333 CL9)  
 Disk Subsystem: Intel X25-M 80GB SSD  
 Other Hardware: None

### Software

Operating System: Windows Vista Ultimate w/ SP1 (64-bit)  
 Compiler: Intel C++ Compiler Professional 11.1 for IA32  
 Build 20090903 Package ID: w\_cproc\_p\_11.1.045  
 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: None  
 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	488	80.0	<b>496</b>	<b>78.8</b>	496	78.8	4	373	105	<b>370</b>	<b>106</b>	368	106
401.bzip2	4	<b>606</b>	<b>63.6</b>	659	58.4	598	64.4	4	<b>606</b>	<b>63.6</b>	604	64.0	611	63.2
403.gcc	4	<b>475</b>	<b>67.6</b>	481	66.8	472	68.0	4	457	70.4	460	70.0	<b>458</b>	<b>70.4</b>
429.mcf	4	<b>404</b>	<b>90.4</b>	405	90.0	404	90.4	4	403	90.4	404	90.4	<b>404</b>	<b>90.4</b>
445.gobmk	4	<b>481</b>	<b>87.2</b>	480	87.6	481	87.2	4	454	92.4	453	92.8	<b>453</b>	<b>92.8</b>
456.hammer	4	<b>443</b>	<b>84.0</b>	443	84.4	444	84.0	4	439	84.8	<b>436</b>	<b>85.6</b>	435	86.0
458.sjeng	4	560	86.4	<b>559</b>	<b>86.4</b>	558	86.8	4	534	90.8	533	90.8	<b>533</b>	<b>90.8</b>
462.libquantum	4	540	154	<b>540</b>	<b>153</b>	540	153	4	540	154	<b>540</b>	<b>153</b>	540	153
464.h264ref	4	632	140	639	138	<b>635</b>	<b>140</b>	4	629	141	<b>627</b>	<b>141</b>	626	142
471.omnetpp	4	541	46.0	<b>541</b>	<b>46.0</b>	542	46.0	4	518	48.4	517	48.4	<b>518</b>	<b>48.4</b>
473.astar	4	535	52.4	<b>534</b>	<b>52.4</b>	533	52.8	4	480	58.4	482	58.4	<b>482</b>	<b>58.4</b>
483.xalanbmk	4	345	80.0	<b>344</b>	<b>80.4</b>	344	80.4	4	345	80.0	<b>344</b>	<b>80.4</b>	344	80.4

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.  
Windows start command was used to bind copies to processors

## General Notes

Tested systems can be used with Shin-G ATX case,  
PC Power and Cooling 1200W power supply  
System was configured with nVidia GTX 280 discrete graphics card

## 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  
483.xalanbmk: -Qoption,cpp,--no\_wchar\_t\_keyword



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## 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 -Qstd=c99

C++ benchmarks:

icl -Qvc9

## Peak Portability Flags

403.gcc: -DSPEC\_CPU\_WIN32  
464.h264ref: -DWIN32 -DSPEC\_CPU\_NO\_INTTYPES  
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

401.bzip2: -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

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## Peak Optimization Flags (Continued)

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.hmmcr: -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: basepeak = yes

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

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-winx64-revA.20100302.02.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-winx64-revA.20100302.02.xml>



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For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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