



# SPEC® CINT2006 Result

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## Intel Corporation

SPECint®\_rate2006 = 78.9

Intel DH67BLB3 Motherboard (Intel Core i3-2120)

SPECint\_rate\_base2006 = 74.1

CPU2006 license: 13

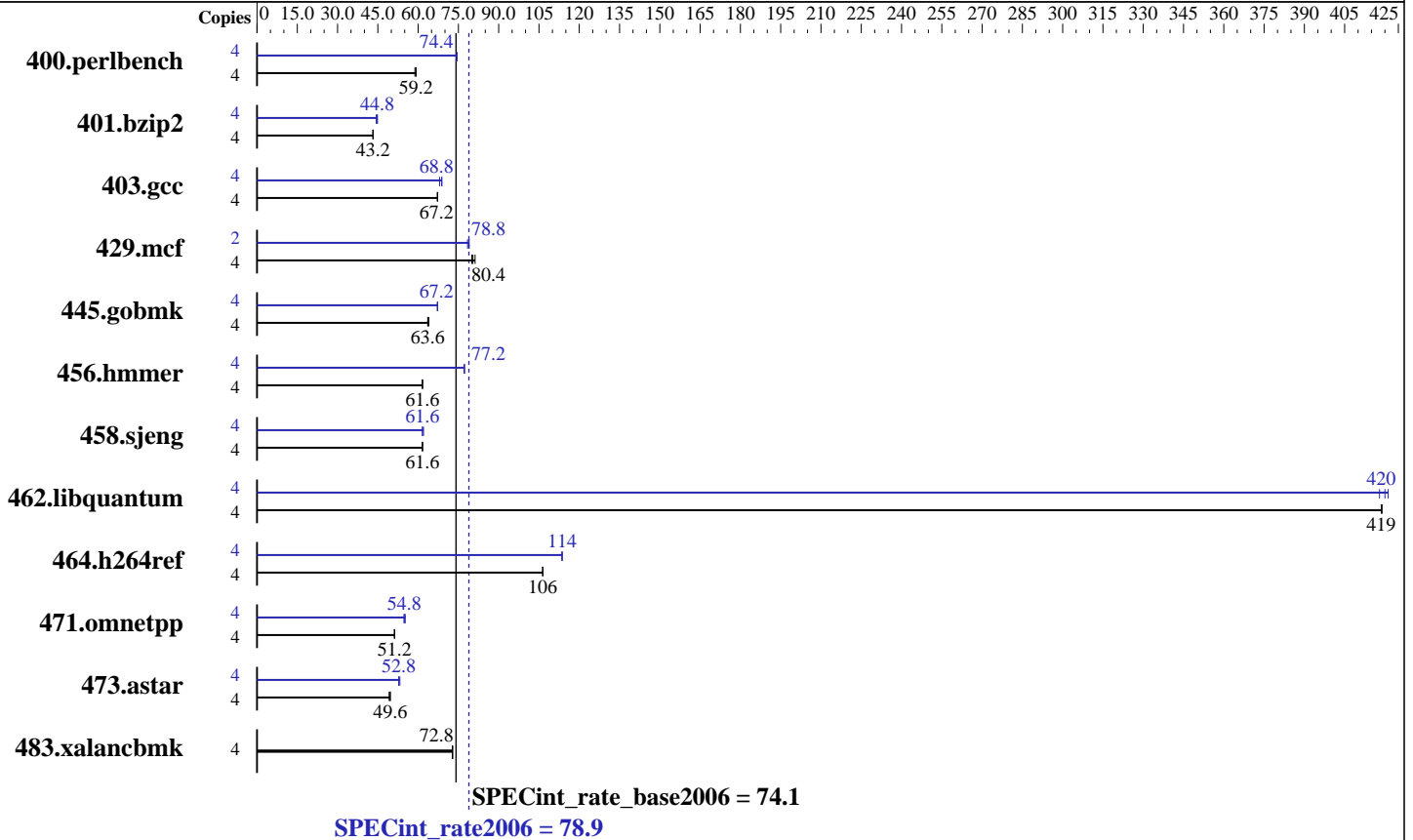
Test date: Apr-2011

Test sponsor: Intel Corporation

Hardware Availability: Mar-2011

Tested by: Intel Corporation

Software Availability: Apr-2011



### Hardware

CPU Name: Intel Core i3-2120  
 CPU Characteristics:  
 CPU MHz: 3300  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 2 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: 3 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 8 GB (2 x 4 GB 2Rx8 PC3-10600U-9)  
 Disk Subsystem: Seagate 1 TB SATA, 7200 RPM  
 Other Hardware: None

### Software

Operating System: Windows 7 Ultimate (64-bit)  
 Compiler: Intel C++ Compiler XE for IA32 and Intel 64 Version 12.0.3.163 Build 20110217  
 Microsoft Visual Studio 2008 Professional SP1 (for libraries)  
 Auto Parallel: No  
 File System: NTFS  
 System State: Default  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: SmartHeap Library Version 9.01 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	664	58.8	661	59.2	<b>662</b>	<b>59.2</b>	4	525	74.4	<b>526</b>	<b>74.4</b>	526	74.4
401.bzip2	4	894	43.2	<b>894</b>	<b>43.2</b>	891	43.2	4	<b>865</b>	<b>44.8</b>	865	44.8	872	44.4
403.gcc	4	479	67.2	480	67.2	<b>479</b>	<b>67.2</b>	4	473	68.0	<b>468</b>	<b>68.8</b>	467	68.8
429.mcf	4	<b>454</b>	<b>80.4</b>	457	80.0	450	81.2	2	233	78.4	<b>232</b>	<b>78.8</b>	231	79.0
445.gobmk	4	<b>659</b>	<b>63.6</b>	657	64.0	660	63.6	4	625	67.2	624	67.2	<b>625</b>	<b>67.2</b>
456.hammer	4	605	61.6	<b>606</b>	<b>61.6</b>	606	61.6	4	483	77.2	<b>483</b>	<b>77.2</b>	483	77.2
458.sjeng	4	788	61.6	787	61.6	<b>787</b>	<b>61.6</b>	4	<b>784</b>	<b>61.6</b>	786	61.6	783	62.0
462.libquantum	4	198	419	<b>198</b>	<b>419</b>	198	419	4	198	418	<b>197</b>	<b>420</b>	197	421
464.h264ref	4	830	106	<b>831</b>	<b>106</b>	832	106	4	781	114	<b>780</b>	<b>114</b>	779	114
471.omnetpp	4	489	51.2	488	51.2	<b>488</b>	<b>51.2</b>	4	456	54.8	<b>455</b>	<b>54.8</b>	454	55.2
473.astar	4	569	49.2	567	49.6	<b>567</b>	<b>49.6</b>	4	533	52.8	<b>530</b>	<b>52.8</b>	529	53.2
483.xalancbmk	4	380	72.8	379	72.8	<b>379</b>	<b>72.8</b>	4	380	72.8	379	72.8	<b>379</b>	<b>72.8</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.  
The start command with the /affinity switch was used to bind processes to cores

## General Notes

Tested systems can be used with Shin-G ATX case,  
PC Power and Cooling 1200W power supply

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



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## Base Optimization Flags

C benchmarks:

-QxAVX -Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000

C++ benchmarks:

-QxAVX -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 (except as noted below):

icl -Qvc9 -Qstd=c99

456.hmmer: C:/Program Files (x86)/Intel/ComposerXE-2011/bin/intel64/icl.exe

-link -LIBPATH:C:/Program Files (x86)/Intel/ComposerXE-2011/compiler/lib/intel  
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 9.0/VC/lib/AMD64  
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 9.0/VC/lib  
-link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64

458.sjeng: C:/Program Files (x86)/Intel/ComposerXE-2011/bin/intel64/icl.exe

-link -LIBPATH:C:/Program Files (x86)/Intel/ComposerXE-2011/compiler/lib/intel  
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 9.0/VC/lib/AMD64  
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 9.0/VC/lib  
-link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64

462.libquantum: C:/Program Files (x86)/Intel/ComposerXE-2011/bin/intel64/icl.exe

-Qstd=c99  
-link -LIBPATH:C:/Program Files (x86)/Intel/ComposerXE-2011/compiler/lib/intel  
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 9.0/VC/lib/AMD64  
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 9.0/VC/lib  
-link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64

C++ benchmarks (except as noted below):

icl -Qvc9

473.astar: C:/Program Files (x86)/Intel/ComposerXE-2011/bin/intel64/icl.exe

-link -LIBPATH:C:/Program Files (x86)/Intel/ComposerXE-2011/compiler/lib/intel  
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 9.0/VC/lib/AMD64  
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 9.0/VC/lib  
-link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64



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## Peak Portability Flags

```

403.gcc: -DSPEC_CPU_WIN32
456.hmmer: -DSPEC_CPU_P64
458.sjeng: -DSPEC_CPU_P64
462.libquantum: -DSPEC_CPU_P64
464.h264ref: -DWIN32 -DSPEC_CPU_NO_INTTYPES
473.astar: -DSPEC_CPU_P64
483.xalancbmk: -Qoption,cpp,--no_wchar_t_keyword

```

## Peak Optimization Flags

C benchmarks:

```

400.perlbench: -QxAVX(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: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo
            -O3 -Qprec-div- -Qopt-prefetch -Qansi-alias /F512000000

403.gcc: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo
          -O3 -Qprec-div- -Qopt-prefetch /F512000000

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

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

456.hmmer: -Qauto-ilp32 -QxAVX(pass 2) -Qprof_gen(pass 1)
            -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch
            /F512000000

458.sjeng: -Qauto-ilp32 -QxAVX(pass 2) -Qprof_gen(pass 1)
            -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll4
            /F512000000

462.libquantum: -Qauto-ilp32 -QxSSE4.2 -Qipo -O3 -Qprec-div-
                -Qopt-prefetch /F512000000

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

```

C++ benchmarks:

```

471.omnetpp: -QxAVX(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

```

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## Peak Optimization Flags (Continued)

```
473.astar: -Qauto-ilp32 -QxSSE4.2 -Qipo -O3 -Qprec-div-
          -Qopt-prefetch /F512000000 shlw64M.lib
          -link /FORCE:MULTIPLE
```

```
483.xalancbmk: basepeak = yes
```

## Peak Other Flags

C benchmarks:

```
403.gcc: -Dalloca=_alloca
```

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic12-win32-revB.html>

<http://www.spec.org/cpu2006/flags/Intel-Windows-Platform-Settings.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic12-win32-revB.xml>

<http://www.spec.org/cpu2006/flags/Intel-Windows-Platform-Settings.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).

Tested with SPEC CPU2006 v1.1.

Report generated on Wed Jul 23 18:48:55 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 26 April 2011.