



# SPEC® CINT2006 Result

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## Intel Corporation

**SPECint®2006 = 38.8**

Intel DP55KG Motherboard (Intel Core i7-870S)

**SPECint\_base2006 = 35.3**

CPU2006 license: 13

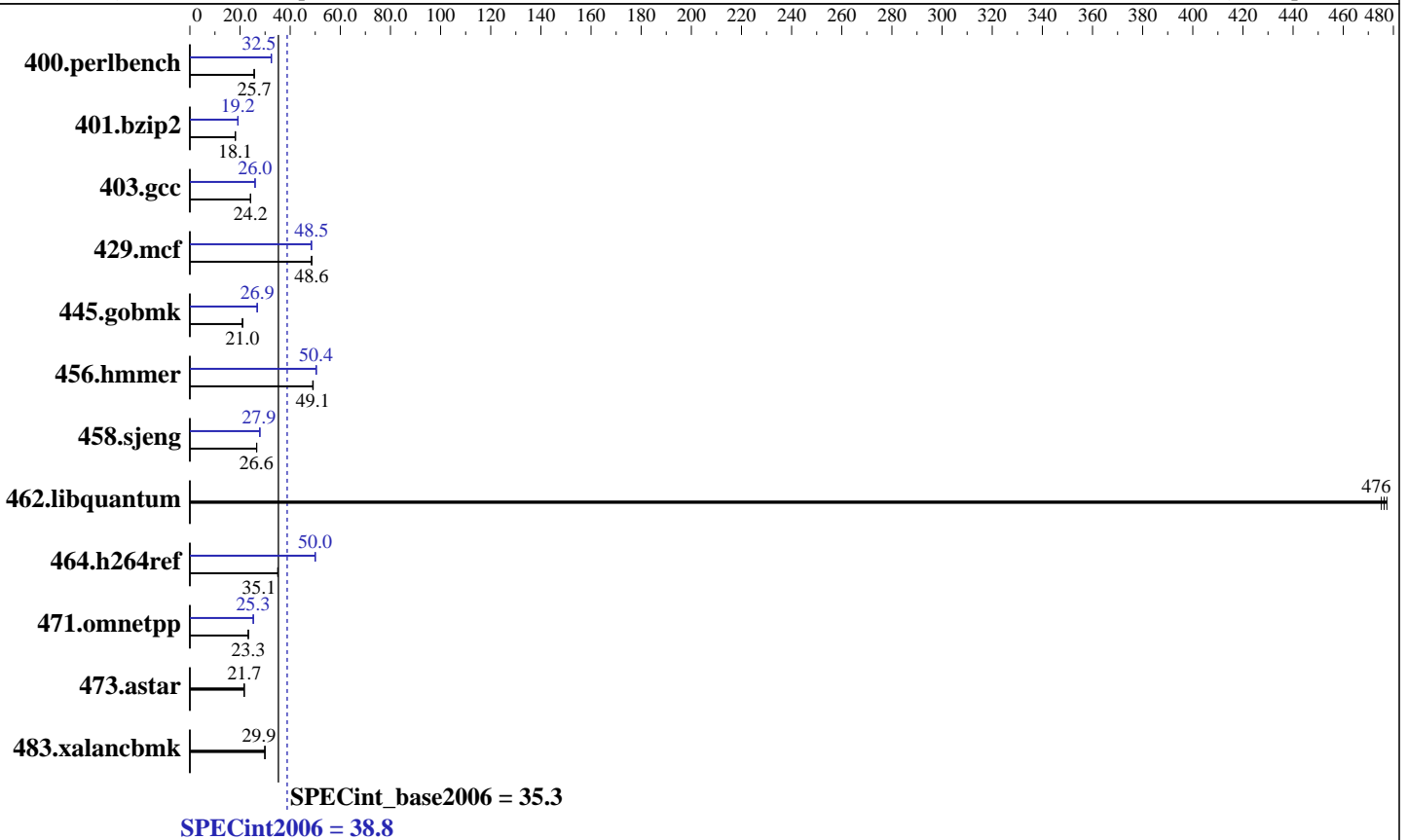
Test date: Jul-2011

Test sponsor: Intel Corporation

Hardware Availability: Mar-2011

Tested by: Intel Corporation

Software Availability: Apr-2011



### Hardware

CPU Name: Intel Core i7-870S  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.60 GHz  
 CPU MHz: 2667  
 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: 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 Intel64  
 Version 12.0.3.163 Build 20110217  
 Microsoft Visual Studio 2008 Professional SP1  
 (for libraries)  
 Auto Parallel: Yes  
 File System: NTFS  
 System State: Default  
 Base Pointers: 32/64-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					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	382	25.6	380	25.7	<b>380</b>	<b>25.7</b>	300	32.5	<b>300</b>	<b>32.5</b>	300	32.5
401.bzip2	530	18.2	<b>533</b>	<b>18.1</b>	534	18.1	<b>504</b>	<b>19.2</b>	502	19.2	505	19.1
403.gcc	333	24.2	<b>333</b>	<b>24.2</b>	333	24.2	<b>310</b>	<b>26.0</b>	310	26.0	310	26.0
429.mcf	188	48.5	188	48.6	<b>188</b>	<b>48.6</b>	188	48.4	188	48.5	<b>188</b>	<b>48.5</b>
445.gobmk	499	21.0	<b>499</b>	<b>21.0</b>	499	21.0	391	26.9	<b>391</b>	<b>26.9</b>	391	26.8
456.hmmer	190	49.2	<b>190</b>	<b>49.1</b>	190	49.0	185	50.4	185	50.4	<b>185</b>	<b>50.4</b>
458.sjeng	455	26.6	454	26.7	<b>454</b>	<b>26.6</b>	434	27.9	<b>434</b>	<b>27.9</b>	434	27.9
462.libquantum	43.6	475	<b>43.5</b>	<b>476</b>	43.4	477	43.6	475	<b>43.5</b>	<b>476</b>	43.4	477
464.h264ref	630	35.1	<b>630</b>	<b>35.1</b>	630	35.1	443	50.0	442	50.0	<b>442</b>	<b>50.0</b>
471.omnetpp	268	23.3	<b>268</b>	<b>23.3</b>	268	23.3	<b>247</b>	<b>25.3</b>	247	25.3	248	25.3
473.astar	325	21.6	323	21.7	<b>324</b>	<b>21.7</b>	325	21.6	323	21.7	<b>324</b>	<b>21.7</b>
483.xalancbmk	230	30.0	<b>231</b>	<b>29.9</b>	231	29.9	230	30.0	<b>231</b>	<b>29.9</b>	231	29.9

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

## General Notes

Tested systems can be used with Shin-G ATX case,  
 PC Power and Cooling 1200W power supply  
 OMP\_NUM\_THREADS set to number of processors cores  
 KMP\_AFFINITY set to granularity=fine,scatter  
 System was configured with an ATI HD5770 discrete graphics card

## Base Compiler Invocation

C benchmarks:

icl -Qvc9 -Qstd=c99

C++ benchmarks:

icl -Qvc9

## Base Portability Flags

400.perlbench: -DSPEC\_CPU\_P64 -DSPEC\_CPU\_WIN64\_X64  
 -DSPEC\_CPU\_NO\_NEED\_VA\_COPY

401.bzip2: -DSPEC\_CPU\_P64

403.gcc: -DSPEC\_CPU\_P64 -DSPEC\_CPU\_WIN64

429.mcf: -DSPEC\_CPU\_P64

445.gobmk: -DSPEC\_CPU\_P64

456.hmmer: -DSPEC\_CPU\_P64

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## Base Portability Flags (Continued)

```

458.sjeng: -DSPEC_CPU_P64
462.libquantum: -DSPEC_CPU_P64
464.h264ref: -DSPEC_CPU_P64 -DWIN32 -DSPEC_CPU_NO_INTTYPES
471.omnetpp: -DSPEC_CPU_P64 -DSPEC_CPU_WIN64
473.astar: -DSPEC_CPU_P64
483.xalancbmk: -DSPEC_CPU_P64 -Qoption,cpp,--no_wchar_t_keyword

```

## Base Optimization Flags

```

C benchmarks:
-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qparallel
-Qauto-ilp32 /F512000000

C++ benchmarks:
-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qcxx-features
-Qauto-ilp32 /F512000000 shlw64M.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

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

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## 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  
-Qauto-ilp32 /F512000000 shlw64M.lib  
-link /FORCE:MULTIPLE

401.bzip2: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qopt-prefetch -Qansi-alias  
-Qauto-ilp32 /F512000000

403.gcc: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qauto-ilp32 /F512000000

429.mcf: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch  
-Qauto-ilp32 /F512000000

445.gobmk: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O2 -Qprec-div- -Qansi-alias -Qauto-ilp32  
/F512000000

456.hmmer: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias  
-Qauto-ilp32 /F512000000

458.sjeng: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll4 -Qauto-ilp32 /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  
-Qauto-ilp32 /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 -Qauto-ilp32 /F512000000  
shlw64M.lib -link /FORCE:MULTIPLE

473.astar: basepeak = yes

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-ic12-winx64-revB.20110808.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12-winx64-revB.20110808.xml>

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

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