



SPEC® CINT2006 Result

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Intel Corporation

SPECint®2006 = 37.8

Intel DH67BL Motherboard (Intel Pentium G870)

SPECint_base2006 = 36.4

CPU2006 license: 13

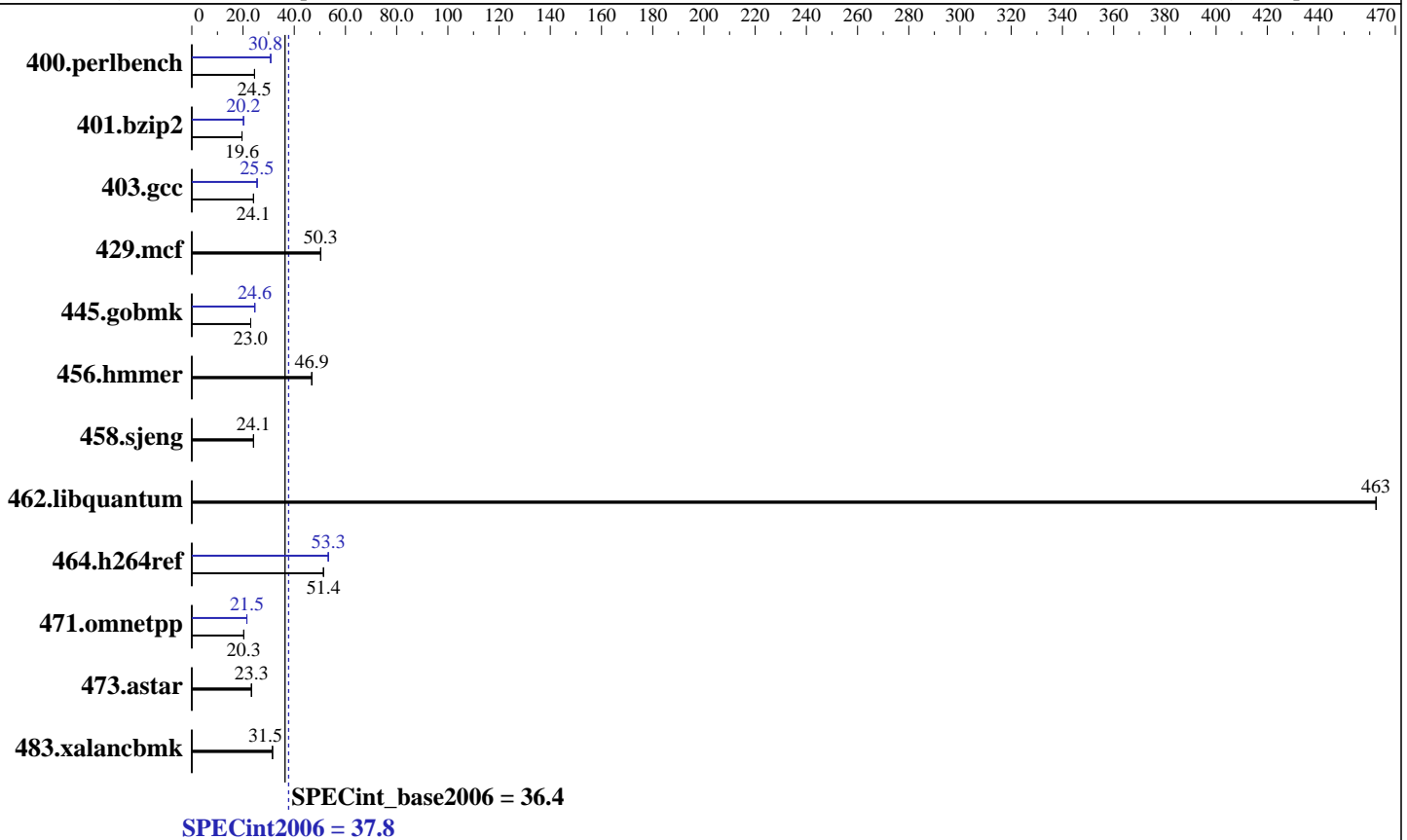
Test date: Sep-2012

Test sponsor: Intel Corporation

Hardware Availability: Jun-2012

Tested by: Intel Corporation

Software Availability: Apr-2011



Hardware

CPU Name: Intel Pentium G870
 CPU Characteristics:
 CPU MHz: 3100
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
 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: 1 TB Seagate SATA, 7200 RPM
 Other Hardware: None

Software

Operating System: Microsoft Windows 7 Ultimate
 6.1.7601 Service Pack 1 Build 7601
 Compiler: C/C++: Version 12.1.0.229 of Intel C++ Studio XE for Windows;
 Libraries: Version 15.00.30729.01 of Microsoft Visual Studio 2008 Professional SP1
 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	<u>399</u>	<u>24.5</u>	400	24.5	399	24.5	<u>317</u>	<u>30.8</u>	317	30.8	317	30.8
401.bzip2	492	19.6	492	19.6	<u>492</u>	<u>19.6</u>	<u>477</u>	<u>20.2</u>	477	20.2	477	20.2
403.gcc	<u>335</u>	<u>24.1</u>	334	24.1	335	24.1	316	25.5	<u>316</u>	<u>25.5</u>	316	25.5
429.mcf	181	50.3	<u>181</u>	<u>50.3</u>	181	50.4	181	50.3	<u>181</u>	<u>50.3</u>	181	50.4
445.gobmk	456	23.0	455	23.0	<u>455</u>	<u>23.0</u>	<u>426</u>	<u>24.6</u>	426	24.6	426	24.6
456.hammer	199	46.9	199	46.8	<u>199</u>	<u>46.9</u>	199	46.9	199	46.8	<u>199</u>	<u>46.9</u>
458.sjeng	501	24.1	<u>502</u>	<u>24.1</u>	502	24.1	501	24.1	<u>502</u>	<u>24.1</u>	502	24.1
462.libquantum	44.8	463	<u>44.8</u>	<u>463</u>	44.8	463	<u>44.8</u>	463	<u>44.8</u>	<u>463</u>	44.8	463
464.h264ref	430	51.4	<u>430</u>	<u>51.4</u>	430	51.5	415	53.3	<u>415</u>	<u>53.3</u>	415	53.3
471.omnetpp	307	20.3	<u>307</u>	<u>20.3</u>	307	20.3	<u>291</u>	<u>21.5</u>	291	21.5	290	21.5
473.astar	302	23.3	<u>302</u>	<u>23.3</u>	302	23.3	302	23.3	<u>302</u>	<u>23.3</u>	302	23.3
483.xalancbmk	219	31.5	219	31.5	<u>219</u>	<u>31.5</u>	219	31.5	219	31.5	<u>219</u>	<u>31.5</u>

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

Compiler Invocation Notes

ipsxe-comp-vars batch file invoked with intel64

Platform Notes

Sysinfo program C:\CPU200~1.17A\Docs\sysinfo
\$Rev: 6775 \$ \$Date:: 2011-08-16 #\$ \8787f7622badcf24e01c368b1db4377c
running on Clt386077E02EFB Fri Sep 14 17:22:31 2012

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
<http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

```
Trying 'systeminfo'
OS Name      : Microsoft Windows 7 Ultimate
OS Version   : 6.1.7601 Service Pack 1 Build 7601
System Manufacturer: INTEL_
System Model  : DH67BL__
Processor(s) : 1 Processor(s) Installed.
               [01]: Intel64 Family 6 Model 42 Stepping 7 GenuineIntel ~3100 Mhz
BIOS Version  : Intel Corp. BLH6710H.86A.0156.2012.0615.1908, 6/15/2012
Total Physical Memory: 8,091 MB
```

```
Trying 'wmic cpu get /value'
DeviceID     : CPU0
L2CacheSize  : 512
L3CacheSize  : 3072
MaxClockSpeed : 3100
```

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Platform Notes (Continued)

Name : Intel(R) Pentium(R) CPU G870 @ 3.10GHz
NumberOfCores : 2
NumberOfLogicalProcessors: 2

(End of data from sysinfo program)

Component Notes

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

General Notes

OMP_NUM_THREADS set to number of processors cores
KMP_AFFINITY set to granularity=fine,scatter
Binaries compiled on a system with 1x Intel Core i7-860 CPU
+ 8GB memory using Windows 7 Enterprise 64-bit

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
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



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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:

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

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Peak Optimization Flags (Continued)

429.mcf: basepeak = yes

445.gobmk: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O2 -Qprec-div- -Qansi-alias -Qauto-ilp32
/F512000000

456.hmmr: basepeak = yes

458.sjeng: basepeak = yes

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

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-windows.20120117.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-windows.20120117.xml>



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