



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECint®_rate2006 = 56.5

Intel DH61WW motherboard (Intel Pentium G620)

SPECint_rate_base2006 = 52.4

CPU2006 license: 13

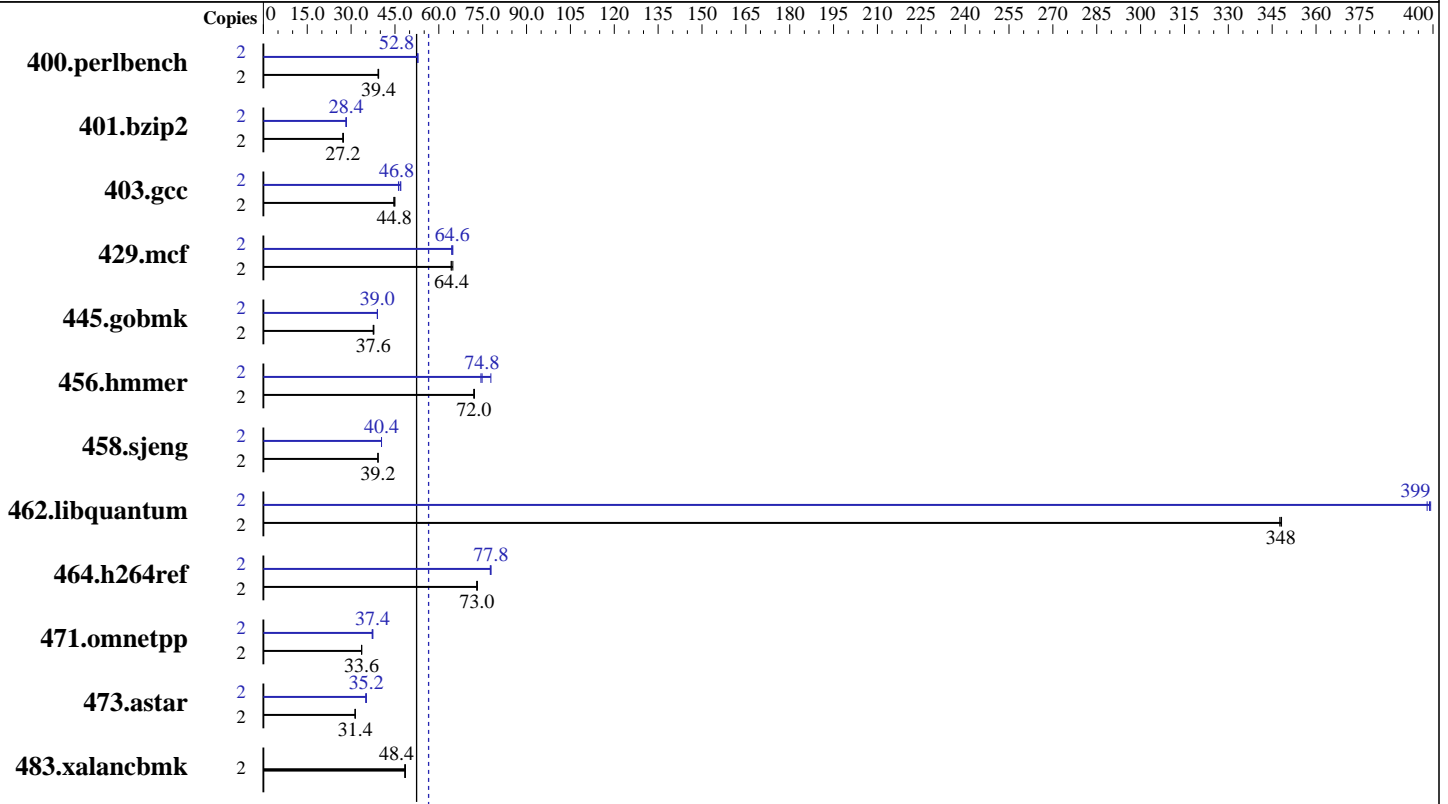
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Sep-2011

Hardware Availability: Aug-2011

Software Availability: Apr-2011



SPECint_rate_base2006 = 52.4

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Hardware

CPU Name: Intel Pentium G620
 CPU Characteristics:
 CPU MHz: 2600
 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: 4 GB (2 x 2 GB 2Rx4 PC3-10600U-9, running at 1066 MHz)
 Disk Subsystem: 1 TB Segate SATA, 7200 RPM
 Other Hardware: None

Software

Operating System: Windows 7 Ultimate (64-bit)
 Compiler: Intel C++ Studio XE for Windows Version 12.0.3.176 Build 20110309
 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	2	497	39.2	496	39.4	496	39.4	2	370	52.8	370	52.8	370	52.8
401.bzip2	2	709	27.2	705	27.4	710	27.2	2	680	28.4	685	28.2	681	28.4
403.gcc	2	359	44.8	361	44.6	357	45.0	2	344	46.8	349	46.2	342	47.0
429.mcf	2	283	64.4	282	64.8	284	64.2	2	283	64.4	282	64.8	282	64.6
445.gobmk	2	557	37.6	557	37.6	556	37.8	2	538	39.0	537	39.0	538	39.0
456.hammer	2	259	72.0	259	72.2	259	72.0	2	250	74.8	251	74.4	240	77.8
458.sjeng	2	617	39.2	617	39.2	617	39.2	2	598	40.4	599	40.4	599	40.4
462.libquantum	2	119	348	119	348	119	348	2	104	399	104	399	104	398
464.h264ref	2	606	73.0	606	73.0	605	73.2	2	569	77.8	570	77.6	569	77.8
471.omnetpp	2	373	33.6	372	33.6	373	33.6	2	334	37.4	334	37.4	335	37.2
473.astar	2	449	31.4	448	31.4	448	31.4	2	399	35.2	399	35.2	401	35.0
483.xalancbmk	2	285	48.4	285	48.4	284	48.6	2	285	48.4	285	48.4	284	48.6

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

Component Notes

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

General Notes

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



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Base Portability Flags

403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DWIN32 -DSPEC_CPU_NO_INTTYPES
483.xalancbmk: -Qoption,cpp,--no_wchar_t_keyword

Base Optimization Flags

C benchmarks:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000

C++ benchmarks:

-QxSSE4.2 -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.hmmr: C:/Program Files (x86)/Intel/ComposerXE-2011/bin/intel64/icl.exe

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

462.libquantum: C:/Program Files (x86)/Intel/ComposerXE-2011/bin/intel64/icl.exe
-Qstd=c99

C++ benchmarks (except as noted below):

icl -Qvc9

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

Peak Portability Flags

403.gcc: -DSPEC_CPU_WIN32
456.hmmr: -DSPEC_CPU_P64
458.sjeng: -DSPEC_CPU_P64

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Peak Portability Flags (Continued)

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: -QxSSE4.2(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: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qansi-alias
 /F512000000

403.gcc: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000

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

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

456.hmmer: -Qauto-ilp32 -QxSSE4.2(pass 2) -Qprof_gen(pass 1)
 -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch
 /F512000000

458.sjeng: -Qauto-ilp32 -QxSSE4.2(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: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
 -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias /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 /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

```
456.hmmer: -link -LIBPATH:C:/Program Files (x86)/Intel/ComposerXE-2011/compiler/lib/intel64
-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: -link -LIBPATH:C:/Program Files (x86)/Intel/ComposerXE-2011/compiler/lib/intel64
-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: -link -LIBPATH:C:/Program Files (x86)/Intel/ComposerXE-2011/compiler/lib/intel64
-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:

```
473.astar: -link -LIBPATH:C:/Program Files (x86)/Intel/ComposerXE-2011/compiler/lib/intel64
-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
```

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

<http://www.spec.org/cpu2006/flags/Intel-ic12-win32-revC.20111012.html>

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

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

<http://www.spec.org/cpu2006/flags/Intel-ic12-win32-revC.20111012.xml>

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For other inquiries, please contact webmaster@spec.org.

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