



SPEC® CINT2006 Result

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Intel Corporation

SPECint_rate2006 = 80.1

ASUS H97M-PLUS Motherboard (Intel Pentium G3258)

SPECint_rate_base2006 = 75.2

CPU2006 license: 13

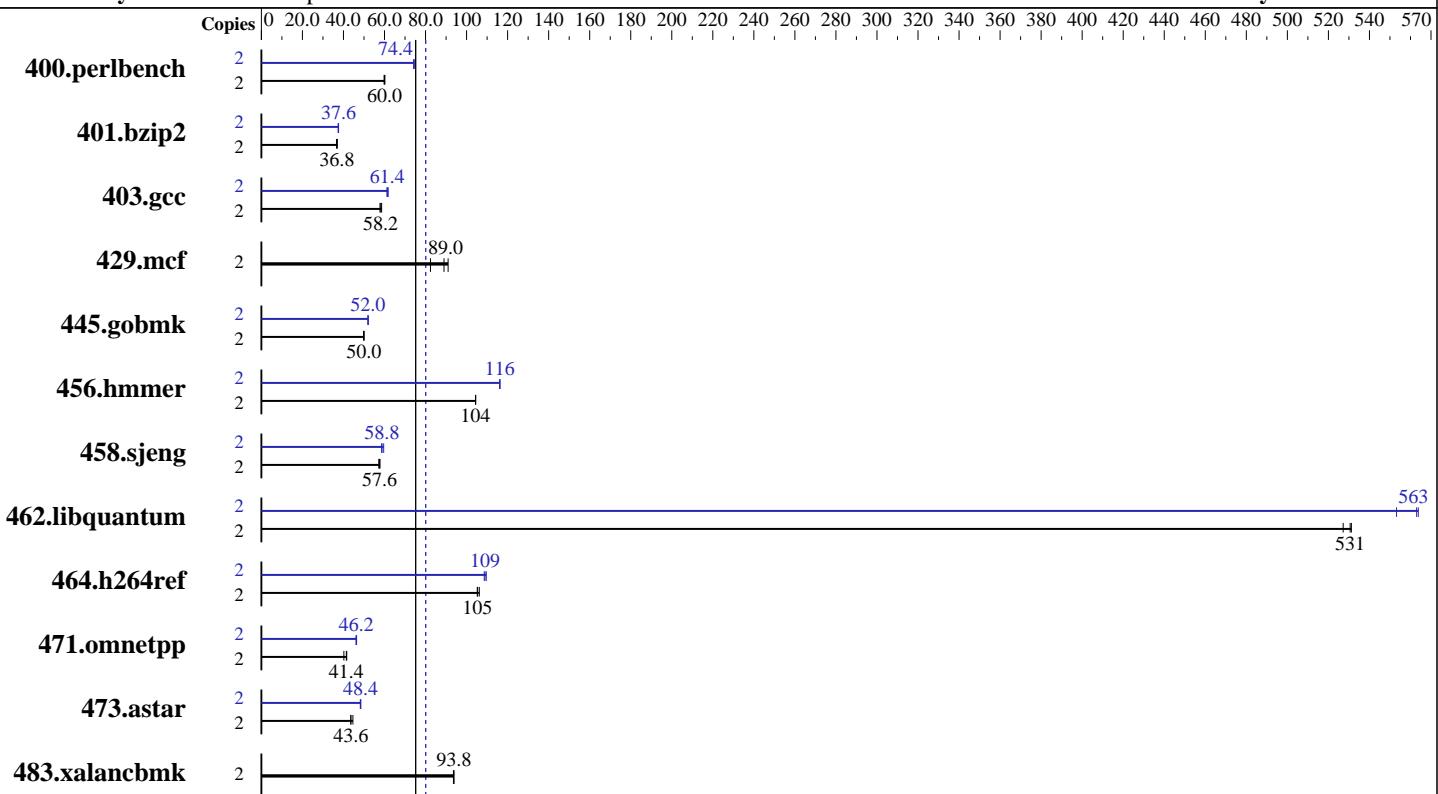
Test date: Jul-2014

Test sponsor: Intel Corporation

Hardware Availability: Jun-2014

Tested by: Intel Corporation

Software Availability: Oct-2013



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Hardware

CPU Name:	Intel Pentium G3258
CPU Characteristics:	
CPU MHz:	3200
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 2Rx4 PC3-12800U-11, running at 1333 MHz and CL9)
Disk Subsystem:	1 TB Seagate SATA HDD, 7200 RPM
Other Hardware:	None

Software

Operating System:	Microsoft Windows 8.1 Pro 6.3.9600 N/A Build 9600
Compiler:	C/C++: Version 14.0.1.139 of Intel C++ Studio XE for Windows; Libraries: Version 16.00.30319.01 of Microsoft Visual Studio 2010 Professional SP1
Auto Parallel:	No
File System:	NTFS
System State:	Default
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	SmartHeap Library Version 10.0 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	326	60.0	327	59.8	325	60.2	2	264	74.2	262	74.4	263	74.4
401.bzip2	2	523	36.8	526	36.6	523	37.0	2	515	37.4	514	37.6	515	37.6
403.gcc	2	277	58.2	275	58.6	279	57.8	2	260	61.8	262	61.4	263	61.2
429.mcf	2	200	91.0	222	82.4	205	89.0	2	200	91.0	222	82.4	205	89.0
445.gobmk	2	421	49.8	420	50.0	420	50.0	2	404	52.0	403	52.0	403	52.0
456.hmmer	2	179	104	179	104	179	104	2	161	116	161	116	161	116
458.sjeng	2	423	57.2	420	57.6	419	57.8	2	412	58.8	413	58.6	407	59.6
462.libquantum	2	78.6	527	78.1	531	78.0	531	2	74.9	553	73.5	564	73.6	563
464.h264ref	2	420	105	417	106	420	105	2	404	110	406	109	408	109
471.omnetpp	2	311	40.2	301	41.6	302	41.4	2	270	46.4	271	46.2	270	46.2
473.astar	2	322	43.6	316	44.6	322	43.6	2	291	48.4	290	48.4	291	48.2
483.xalancbmk	2	147	93.8	147	93.8	148	93.6	2	147	93.8	147	93.8	148	93.6

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

Compiler Invocation Notes

To compile these binaries, the Intel Compiler 14.0 was set up to generate 32-bit binaries with the command:

"ipsxe-comp-vars.bat ia32 vs2010" (shortcut provided in the Intel(r) Parallel Studio XE 2013 program folder)

Submit Notes

Processes were bound to specific processors using the start command with the /affinity switch. The config file option 'submit' was used to generate the affinity mask for each process.

Platform Notes

```
Sysinfo program C:\SPEC14.0\Docs\sysinfo
$Rev: 6775 $ $Date::: 2011-08-16 #\$ \8787f7622badcf24e01c368b1db4377c
running on Clt10C37B4DED9 Sat Jul 26 05:18:42 2014
```

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 8.1 Pro
OS Version   : 6.3.9600 N/A Build 9600
System Manufacturer: ASUS
System Model  : All Series
Processor(s)  : 1 Processor(s) Installed.
```

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Platform Notes (Continued)

[01]: Intel64 Family 6 Model 60 Stepping 3 GenuineIntel ~3201 Mhz
BIOS Version : American Megatrends Inc. 2001, 6/13/2014
Total Physical Memory: 8,006 MB

```
Trying 'wmic cpu get /value'  
DeviceID      : CPU0  
L2CacheSize   : 512  
L3CacheSize   : 3072  
MaxClockSpeed : 3201  
Name          : Intel(R) Pentium(R) CPU G3258 @ 3.20GHz  
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

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 -Qvc10 -Qstd=c99
```

C++ benchmarks:

```
    icl -Qvc10
```

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
```

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Base Optimization Flags (Continued)

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 -Qvc10 -Qstd=c99
```

```
456.hmmer: C:\Program Files (x86)\Intel\Composer XE 2013 SP1/bin/intel64/icl.exe
```

```
458.sjeng: C:\Program Files (x86)\Intel\Composer XE 2013 SP1/bin/intel64/icl.exe
```

```
462.libquantum: C:\Program Files (x86)\Intel\Composer XE 2013 SP1/bin/intel64/icl.exe  
-Qstd=c99
```

C++ benchmarks (except as noted below):

```
icl -Qvc10
```

```
473.astar: C:\Program Files (x86)\Intel\Composer XE 2013 SP1/bin/intel64/icl.exe
```

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:

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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
 /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: basepeak = yes

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- -Qunroll14
 /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- -Qunroll12 -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

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:

Continued on next page



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Peak Other Flags (Continued)

403.gcc: -Dalloca=_alloca

456.hmmer: -link -LIBPATH:C:\Program Files (x86)\Intel\Composer XE 2013 SP1/compiler/lib/intel64
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib/AMD64
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib
-link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64

458.sjeng: -link -LIBPATH:C:\Program Files (x86)\Intel\Composer XE 2013 SP1/compiler/lib/intel64
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib/AMD64
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib
-link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64

462.libquantum: -link -LIBPATH:C:\Program Files (x86)\Intel\Composer XE 2013 SP1/compiler/lib/intel64
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib/AMD64
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/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\Composer XE 2013 SP1/compiler/lib/intel64
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib/AMD64
-link -LIBPATH:C:/Program Files (x86)/Microsoft Visual Studio 10.0/VC/lib
-link -LIBPATH:C:/Program Files (x86)/Microsoft SDKs/Windows/v7.0A/lib/x64

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

<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-windows.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-windows.xml>

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

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