



SPEC® CINT2006 Result

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Intel Corporation

SPECint®2006 = 54.4

Intel DH77KC motherboard (Intel Core i7-3770K)

SPECint_base2006 = 51.9

CPU2006 license: 13

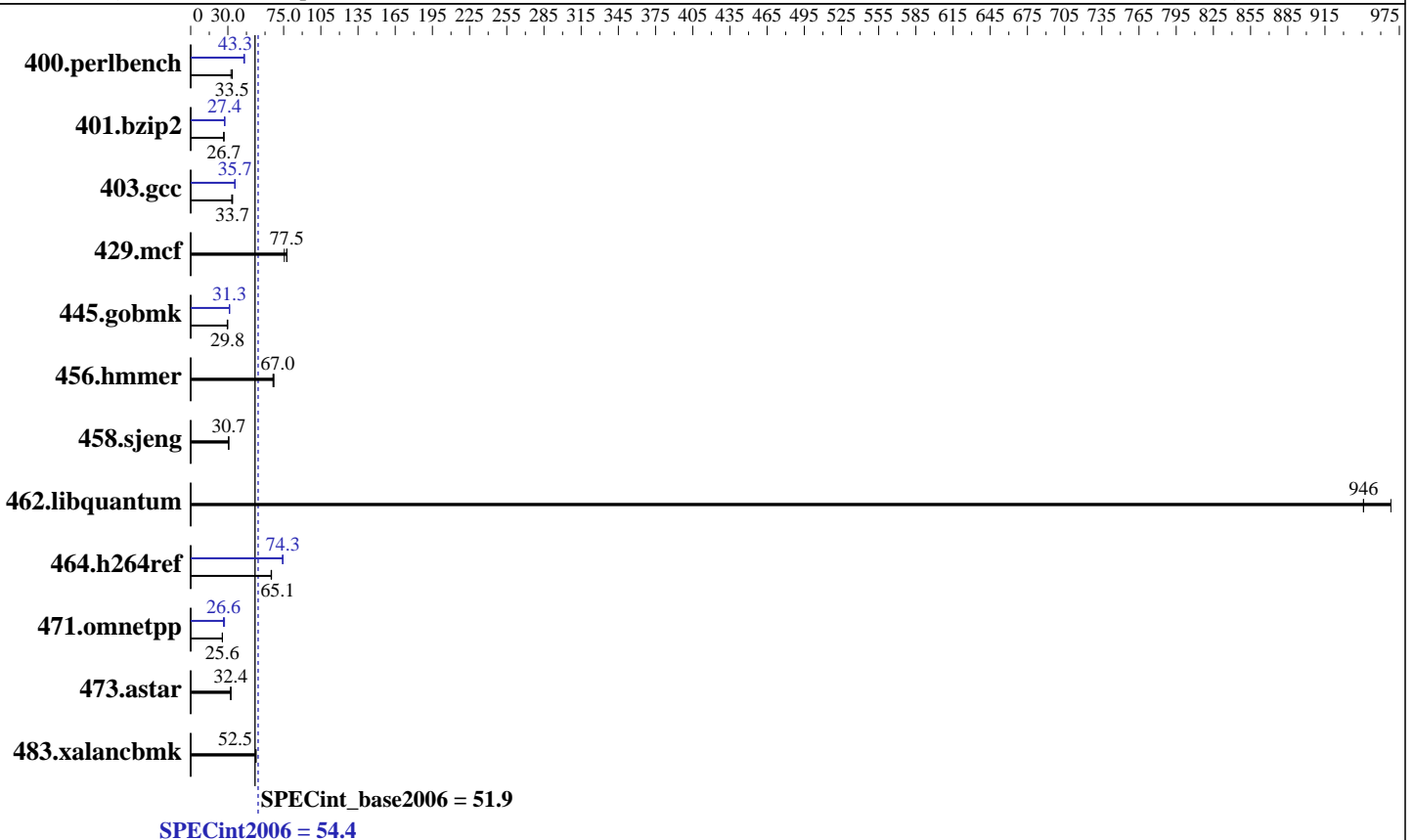
Test date: May-2014

Test sponsor: Intel Corporation

Hardware Availability: May-2013

Tested by: Intel Corporation

Software Availability: Oct-2013



Hardware

CPU Name: Intel Core i7-3770K
 CPU Characteristics: Intel Turbo Boost Technology up to 3.90 GHz
 CPU MHz: 3500
 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 2Rx4 PC3-12800U-11)
 Disk Subsystem: 1 TB Seagate 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: Yes
 File System: NTFS
 System State: Default
 Base Pointers: 32/64-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					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	300	32.5	291	33.6	<u>291</u>	<u>33.5</u>	228	42.9	<u>226</u>	<u>43.3</u>	225	43.3
401.bzip2	362	26.7	<u>361</u>	<u>26.7</u>	359	26.9	355	27.2	<u>352</u>	<u>27.4</u>	349	27.6
403.gcc	243	33.1	239	33.7	<u>239</u>	<u>33.7</u>	<u>225</u>	<u>35.7</u>	225	35.7	225	35.7
429.mcf	121	75.5	<u>118</u>	<u>77.5</u>	118	77.6	121	75.5	<u>118</u>	<u>77.5</u>	118	77.6
445.gobmk	356	29.5	352	29.8	<u>352</u>	<u>29.8</u>	335	31.3	335	31.3	<u>335</u>	<u>31.3</u>
456.hammer	141	66.4	139	67.0	<u>139</u>	<u>67.0</u>	141	66.4	139	67.0	<u>139</u>	<u>67.0</u>
458.sjeng	397	30.5	<u>394</u>	<u>30.7</u>	394	30.7	397	30.5	<u>394</u>	<u>30.7</u>	394	30.7
462.libquantum	<u>21.9</u>	<u>946</u>	21.9	946	21.4	968	<u>21.9</u>	<u>946</u>	21.9	946	21.4	968
464.h264ref	341	64.9	<u>340</u>	<u>65.1</u>	339	65.2	298	74.2	298	74.3	<u>298</u>	<u>74.3</u>
471.omnetpp	244	25.6	<u>244</u>	<u>25.6</u>	245	25.5	229	27.3	235	26.6	<u>235</u>	<u>26.6</u>
473.astar	<u>217</u>	<u>32.4</u>	218	32.2	217	32.4	<u>217</u>	<u>32.4</u>	218	32.2	217	32.4
483.xalancbmk	<u>131</u>	<u>52.5</u>	131	52.8	132	52.5	<u>131</u>	<u>52.5</u>	131	52.8	132	52.5

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 64-bit binaries with the command:
"ipsxe-comp-vars.bat intel64 vs2010" (shortcut provided in the Intel(r) Parallel Studio XE 2013 program folder)

Platform Notes

Sysinfo program C:\SPEC14.0\Docs\sysinfo
\$Rev: 6775 \$ \$Date: 2011-08-16 # \$ \8787f7622badcf24e01c368b1db4377c
running on IVB9600 Thu May 29 13:09:59 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: INTEL_
System Model   : DH77KC__
Processor(s)  : 1 Processor(s) Installed.
               [01]: Intel64 Family 6 Model 58 Stepping 8 GenuineIntel ~3501 Mhz
BIOS Version  : Intel Corp. KCH7710H.86A.0110.2013.0513.1018, 5/13/2013
Total Physical Memory: 8,089 MB
```

```
Trying 'wmic cpu get /value'
DeviceID      : CPU0
```

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Platform Notes (Continued)

L2CacheSize : 1024
 L3CacheSize : 8192
 MaxClockSpeed : 3501
 Name : Intel(R) Core(TM) i7-3770K CPU @ 3.50GHz
 NumberOfCores : 4
 NumberOfLogicalProcessors : 8

(End of data from sysinfo program)

BIOS: SATA mode set to RAID

Windows Disk Driver: Intel Rapid Storage Technology 12.9.0.1001

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 -Qvc10 -Qstd=c99

C++ benchmarks:
 icl -Qvc10

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

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Base Portability Flags (Continued)

483.xalancbmk: -DSPEC_CPU_P64 -Qoption,cpp,--no_wchar_t_keyword

Base Optimization Flags

C benchmarks:

-QxAVX -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qparallel -Qauto-ilp32 /F512000000

C++ benchmarks:

-QxAVX -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 -Qvc10 -Qstd=c99

C++ benchmarks:

icl -Qvc10

Peak Portability Flags

Same as Base Portability Flags

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 -Qauto-ilp32 /F512000000 shlw64M.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 -Qauto-ilp32 /F512000000

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Peak Optimization Flags (Continued)

403.gcc: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo
-O3 -Qprec-div- -Qauto-ilp32 /F512000000

429.mcf: basepeak = yes

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

456.hmmer: basepeak = yes

458.sjeng: basepeak = yes

462.libquantum: basepeak = yes

464.h264ref: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo
-O3 -Qprec-div- -Qunroll2 -Qansi-alias -Qauto-ilp32
/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 -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-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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