



SPEC® CINT2006 Result

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Intel Corporation

SPECint®2006 = 54.4

Intel DH77KC motherboard (Intel i7-3770K)

SPECint_base2006 = 52.0

CPU2006 license: 13

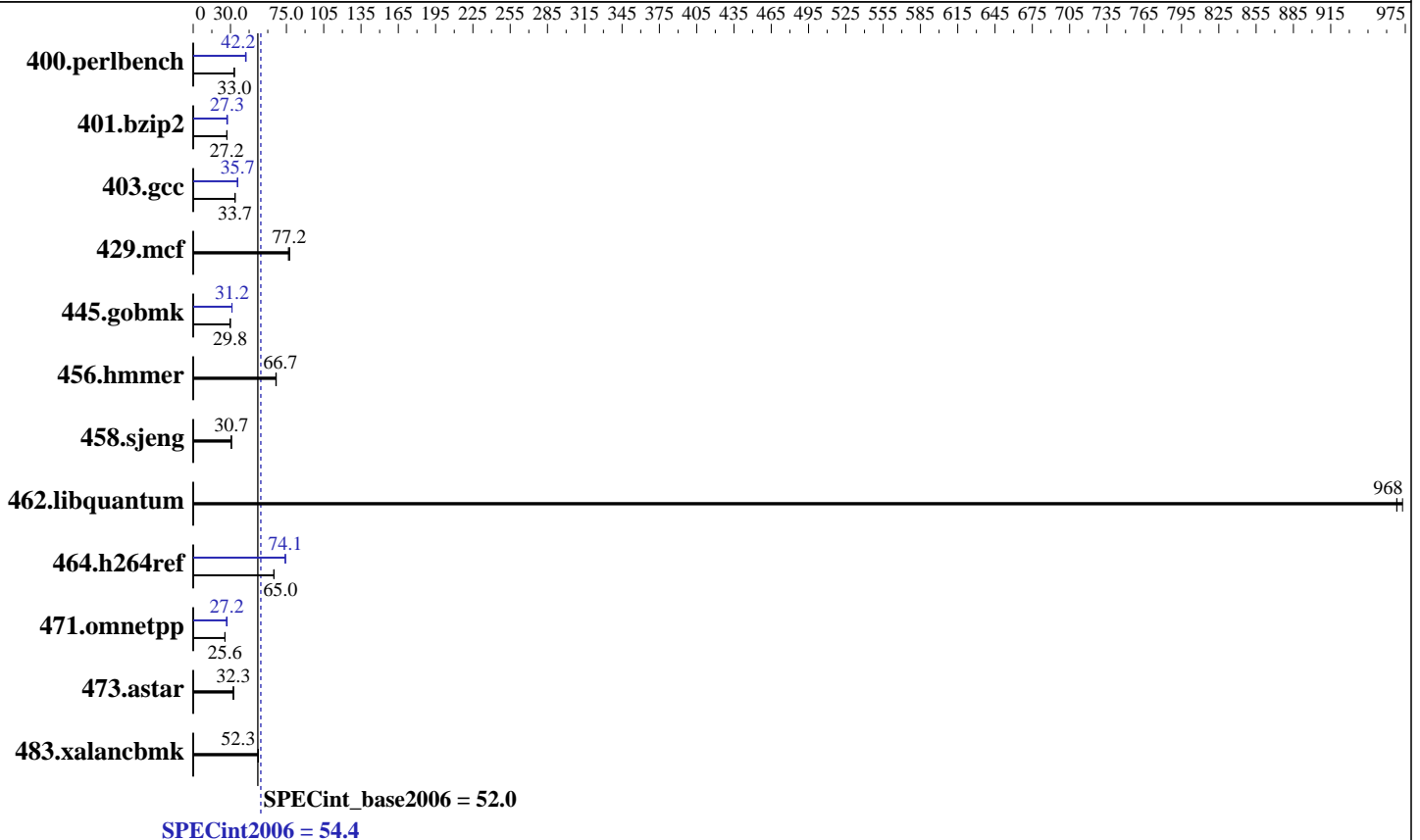
Test date: May-2014

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: 180 GB Intel SSD 530
 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 | <u>296</u> | <u>33.0</u> | 296 | 33.0 | 295 | 33.1 | <u>232</u> | <u>42.2</u> | 232 | 42.1 | 230 | 42.6 |
| 401.bzip2 | <u>355</u> | <u>27.2</u> | 355 | 27.2 | 357 | 27.0 | 349 | 27.6 | <u>353</u> | <u>27.3</u> | 356 | 27.1 |
| 403.gcc | 239 | 33.6 | <u>239</u> | <u>33.7</u> | 239 | 33.7 | 225 | 35.7 | <u>225</u> | <u>35.7</u> | 225 | 35.7 |
| 429.mcf | <u>118</u> | <u>77.2</u> | 119 | 76.6 | 118 | 77.6 | <u>118</u> | <u>77.2</u> | 119 | 76.6 | 118 | 77.6 |
| 445.gobmk | 352 | 29.8 | <u>352</u> | <u>29.8</u> | 352 | 29.8 | 336 | 31.2 | <u>336</u> | <u>31.2</u> | 336 | 31.2 |
| 456.hammer | 140 | 66.5 | 140 | 66.8 | <u>140</u> | <u>66.7</u> | 140 | 66.5 | 140 | 66.8 | <u>140</u> | <u>66.7</u> |
| 458.sjeng | <u>394</u> | <u>30.7</u> | 394 | 30.7 | 394 | 30.7 | <u>394</u> | <u>30.7</u> | 394 | 30.7 | 394 | 30.7 |
| 462.libquantum | 21.3 | 973 | <u>21.4</u> | <u>968</u> | 21.4 | 968 | 21.3 | 973 | <u>21.4</u> | <u>968</u> | 21.4 | 968 |
| 464.h264ref | <u>340</u> | <u>65.0</u> | 340 | 65.0 | 341 | 64.9 | 298 | 74.2 | <u>299</u> | <u>74.1</u> | 299 | 74.1 |
| 471.omnetpp | 244 | 25.6 | <u>244</u> | <u>25.6</u> | 245 | 25.5 | <u>230</u> | <u>27.2</u> | 234 | 26.7 | 229 | 27.3 |
| 473.astar | 217 | 32.4 | <u>218</u> | <u>32.3</u> | 218 | 32.3 | 217 | 32.4 | <u>218</u> | <u>32.3</u> | 218 | 32.3 |
| 483.xalancbmk | <u>132</u> | <u>52.3</u> | 132 | 52.4 | 132 | 52.3 | <u>132</u> | <u>52.3</u> | 132 | 52.4 | 132 | 52.3 |

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 Fri May 16 18:21:45 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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