Intel Corporation

Intel DH77KC motherboard (Intel i7-3770K)

**SPEC® CFP2006 Result**

**SPECfp_rate2006 = 133**

**SPECfp_rate_base2006 = 130**

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name: Intel Core i7-3770K</td>
<td>Operating System: Microsoft Windows 8.1 Pro 6.3.9600 N/A Build 9600</td>
</tr>
<tr>
<td>CPU MHZ: 3500</td>
<td>Auto Parallel: No</td>
</tr>
<tr>
<td>FPU: Integrated</td>
<td></td>
</tr>
<tr>
<td>CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip, 2 threads/core</td>
<td></td>
</tr>
<tr>
<td>CPU(s) orderable: 1 chip</td>
<td></td>
</tr>
<tr>
<td>Primary Cache: 32 KB I + 32 KB D on chip per core</td>
<td></td>
</tr>
<tr>
<td>Secondary Cache: 256 KB I+D on chip per core</td>
<td></td>
</tr>
</tbody>
</table>

**Test date:** May-2014

**Hardware Availability:** May-2013

**Software Availability:** Oct-2013

---

<table>
<thead>
<tr>
<th>Software</th>
<th>Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test sponsor: Intel Corporation</td>
<td>Test date: May-2014</td>
</tr>
<tr>
<td>Tested by: Intel Corporation</td>
<td>Hardware Availability: May-2013</td>
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<table>
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<tr>
<th>SPECfp_rate_base2006 = 130</th>
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**Copies**

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Result</th>
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<tr>
<td>410.bwaves</td>
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<td>162</td>
</tr>
<tr>
<td>416.gamess</td>
<td>8</td>
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<td>433.zeusmp</td>
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<td>437.leslie3d</td>
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<td>459.GemsFDTD</td>
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<td>143</td>
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<td>482.sphinx3</td>
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**Continued on next page**
Intel Corporation
Intel DH77KC motherboard (Intel i7-3770K)

SPEC CFP2006 Result

SPECfp_rate2006 = 133
SPECfp_rate_base2006 = 130

CPU2006 license: 13
Test sponsor: Intel Corporation
Test date: May-2014
Hardware Availability: May-2013
Tested by: Intel Corporation
Software Availability: Oct-2013

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

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/

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
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</tbody>
</table>

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)

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.
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---

**Platform Notes**

Sysinfo program C:\SPEC14.0/Docs/sysinfo

$Rev: 6775 $ $Date:: 2011-08-16 #$ \8787f7622badcf24e01c368b1db4377c

running on IVB9600 Sat May 17 14:50:47 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
Total Physical Memory: 8,089 MB

Trying 'wmic cpu get /value'

DeviceID : CPU0
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**

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

Continued on next page
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Base Compiler Invocation (Continued)

Fortran benchmarks:
  ifort

Benchmarks using both Fortran and C:
  icl -Qvc10 -Qstd=c99 ifort

Base Portability Flags

-DSPEC_CPU_P64

Base Optimization Flags

C benchmarks:
  -QxAVX -Qipo -O3 -Qprec-div -Qansi-alias -Qopt-prefetch
  -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

C++ benchmarks:
  -QxAVX -Qipo -O3 -Qprec-div -Qansi-alias -Qopt-prefetch
  -Qcxx-features -Qauto-ilp32 /F1000000000 shlw64m.lib
  -link /FORCE:MULTIPLE

Fortran benchmarks:
  -QxAVX -Qipo -O3 -Qprec-div -Qansi-alias -Qopt-prefetch
  /F1000000000 -link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:
  -QxAVX -Qipo -O3 -Qprec-div -Qansi-alias -Qopt-prefetch
  -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE
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Peak Compiler Invocation

C benchmarks:
   icl -Qvc10 -Qstd=c99

C++ benchmarks:
   icl -Qvc10

Fortran benchmarks:
   ifort

Benchmarks using both Fortran and C:
   icl -Qvc10 -Qstd=c99 ifort

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
   433.milc: basepeak = yes
   470.lbm: basepeak = yes
   482.sphinx3: basepeak = yes

C++ benchmarks:
   444.namd: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div -Oa -Qauto-ilp32 /F10000000000 shlw64M.lib -link /FORCE:MULTIPLE
   447.dealII: basepeak = yes
   450.soplex: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qauto-ilp32 /F10000000000 shlw64M.lib -link /FORCE:MULTIPLE
   453.povray: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div -Qopt-prefetch -Qauto-ilp32 /F10000000000 shlw64M.lib -link /FORCE:MULTIPLE

Fortran benchmarks:
   410.bwaves: basepeak = yes
Intel Corporation

Intel DH77KC motherboard (Intel i7-3770K)

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Peak Optimization Flags (Continued)

416.gamess: basepeak = yes
434.zeusmp: basepeak = yes
437.leslie3d: basepeak = yes
459.GemsFDTD: basepeak = yes

465.tonto: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo
-03 -Qprec-div -Qunroll4 -Qauto /F1000000000
-link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes
436.cactusADM: basepeak = yes
454.calculix: basepeak = yes
481.wrf: basepeak = yes

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

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

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.2.
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