Intel Corporation

Intel DX79SI motherboard (Intel Core i7-3960X Extreme Edition)

SPECint_rate2006 = 267
SPECint_rate_base2006 = 252

Hardware

CPU Name: Intel Core i7-3960X Extreme Edition
CPU Characteristics: Intel Turbo Boost Technology up to 3.90 GHz
CPU MHz: 3300
FPU: Integrated
CPU(s) enabled: 6 cores, 1 chip, 6 cores/chip, 2 threads/core
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 256 KB I+D on chip per core
L3 Cache: None
Other Cache: None
Memory: 16 GB (4 x 4 GB 2Rx8 PC3-12800U-11)
Disk Subsystem: Intel 160 GB SSD
Other Hardware: None

Software

Operating System: Windows 7 Ultimate SP1 (64-bit)
Compiler: C/C++: Version 12.0.3.176 of Intel C++ Studio XE for Windows;
Libraries: Version 15.00.30729.01 of Microsoft Visual Studio 2008 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 9.01 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>
<th>Ratio</th>
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<tr>
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<td>429.mcf</td>
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<td>325</td>
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<tr>
<td>456.hmmer</td>
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<td>462.libquantum</td>
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<td>473.astar</td>
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<td>367</td>
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</tr>
</tbody>
</table>

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
System was configured with an ATI HD 6990 discrete graphics card

**Base Compiler Invocation**
C benchmarks:
```bash
icl -Qvc9 -Qstd=c99
```
C++ benchmarks:
```bash
icl -Qvc9
```

**Base Portability Flags**
```bash
403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DW2N32 -DSPEC_CPU_NO_INTTYPES
483.xalancbmk: -Qoption,cpp,--no_wchar_t_keyword
```
Intel Corporation
Intel DX79SI motherboard (Intel Core i7-3960X Extreme Edition)

SPECint_rate2006 = 267
SPECint_rate_base2006 = 252

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation

Test date: Oct-2011
Hardware Availability: Nov-2011
Software Availability: Apr-2011

Base Optimization Flags

C benchmarks:
- QxAVX -Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000

C++ benchmarks:
- QxAVX -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.hmmer: 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.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
Intel Corporation
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Intel Corporation

SPEC CINT2006 Result
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Tested by: Intel Corporation

Test date: Oct-2011
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Software Availability: Apr-2011

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/F512000000
shlw32M.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/F512000000

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

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

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

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

458.sjeng: -Qauto-ilp32 -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div -Qopt-prefetch/F512000000

shlw32M.lib -Qunroll4 /F512000000

462.libquantum: -Qauto-ilp32 -QxSSE4.2 -Qipo -O3 -Qprec-div -Qopt-prefetch /F512000000

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

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

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