



SPEC® CINT2006 Result

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Intel Corporation

SPECint®2006 = 38.7

Intel DX58SO2 Motherboard (Intel Core i7-960)

SPECint_base2006 = 36.3

CPU2006 license: 13

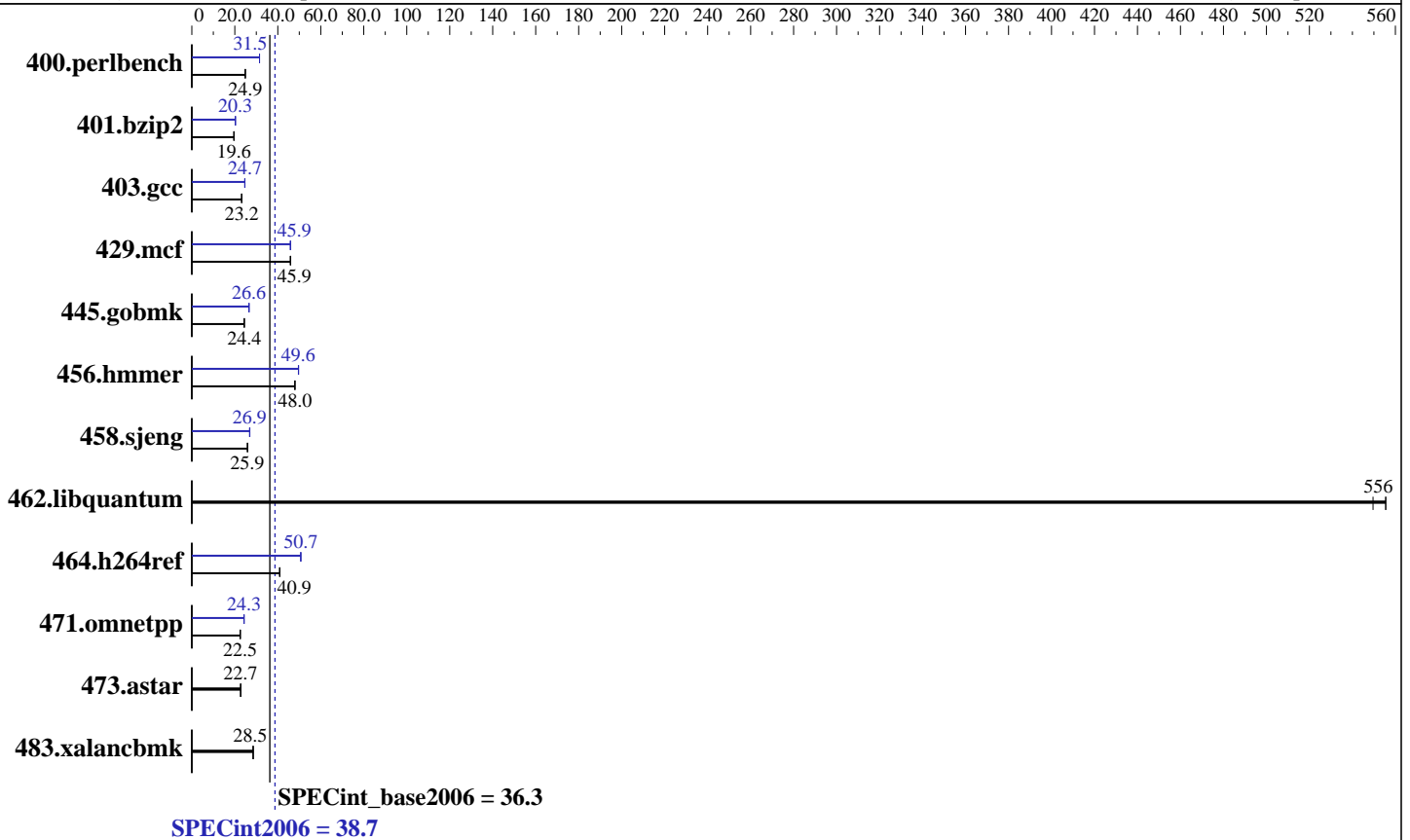
Test date: Jul-2011

Test sponsor: Intel Corporation

Hardware Availability: Mar-2011

Tested by: Intel Corporation

Software Availability: Apr-2011



Hardware

CPU Name: Intel Core i7-960
 CPU Characteristics: Intel Turbo Boost Technology up to 3.46 GHz
 CPU MHz: 3200
 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: 12 GB (3 x 4 GB 2Rx8 PC3-8600U-9)
 Disk Subsystem: Seagate 1 TB SATA, 7200 RPM
 Other Hardware: None

Software

Operating System: Windows 7 Ultimate (64-bit)
 Compiler: Intel C++ Compiler XE for Intel64
 Version 12.0.3.163 Build 20110217
 Microsoft Visual Studio 2008 Professional SP1
 (for libraries)
 Auto Parallel: Yes
 File System: NTFS
 System State: Default
 Base Pointers: 32/64-bit
 Peak Pointers: 32/64-bit
 Other Software: SmartHeap Library Version 9.01 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 | 393 | 24.9 | <u>393</u> | <u>24.9</u> | 394 | 24.8 | <u>310</u> | <u>31.5</u> | 310 | 31.5 | 310 | 31.5 |
| 401.bzip2 | 492 | 19.6 | <u>493</u> | <u>19.6</u> | 493 | 19.6 | <u>476</u> | <u>20.3</u> | 476 | 20.3 | 477 | 20.2 |
| 403.gcc | 347 | 23.2 | <u>348</u> | <u>23.2</u> | 348 | 23.2 | <u>327</u> | <u>24.7</u> | 326 | 24.7 | 328 | 24.6 |
| 429.mcf | 198 | 46.0 | 199 | 45.8 | <u>199</u> | <u>45.9</u> | <u>199</u> | <u>45.9</u> | 198 | 46.0 | 199 | 45.8 |
| 445.gobmk | 429 | 24.4 | 430 | 24.4 | <u>429</u> | <u>24.4</u> | <u>394</u> | <u>26.6</u> | 394 | 26.6 | 395 | 26.6 |
| 456.hmmer | 195 | 47.9 | 194 | 48.0 | <u>194</u> | <u>48.0</u> | 188 | 49.7 | <u>188</u> | <u>49.6</u> | 188 | 49.6 |
| 458.sjeng | <u>467</u> | <u>25.9</u> | 467 | 25.9 | 467 | 25.9 | 449 | 27.0 | <u>449</u> | <u>26.9</u> | 449 | 26.9 |
| 462.libquantum | 37.7 | 550 | 37.3 | 556 | <u>37.3</u> | <u>556</u> | 37.7 | 550 | 37.3 | 556 | <u>37.3</u> | <u>556</u> |
| 464.h264ref | 541 | 40.9 | 542 | 40.9 | <u>541</u> | <u>40.9</u> | 436 | 50.7 | 437 | 50.7 | <u>437</u> | <u>50.7</u> |
| 471.omnetpp | 277 | 22.6 | <u>277</u> | <u>22.5</u> | 277 | 22.5 | 257 | 24.3 | 258 | 24.3 | <u>257</u> | <u>24.3</u> |
| 473.astar | 309 | 22.8 | <u>309</u> | <u>22.7</u> | 309 | 22.7 | 309 | 22.8 | <u>309</u> | <u>22.7</u> | 309 | 22.7 |
| 483.xalancbmk | 242 | 28.6 | <u>242</u> | <u>28.5</u> | 242 | 28.5 | 242 | 28.6 | <u>242</u> | <u>28.5</u> | 242 | 28.5 |

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

General Notes

Tested systems can be used with Shin-G ATX case,
 PC Power and Cooling 1200W power supply
 OMP_NUM_THREADS set to number of processors cores
 KMP_AFFINITY set to granularity=fine,scatter
 System was configured with an ATI HD5770 discrete graphics card

Base Compiler Invocation

C benchmarks:

icl -Qvc9 -Qstd=c99

C++ benchmarks:

icl -Qvc9

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

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Base Portability Flags (Continued)

```

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

```

Base Optimization Flags

C benchmarks:

```

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qparallel
-Qauto-ilp32 /F512000000

```

C++ benchmarks:

```

-QxSSE4.2 -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 -Qvc9 -Qstd=c99

```

C++ benchmarks:

```

icl -Qvc9

```

Peak Portability Flags

Same as Base Portability Flags

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

403.gcc: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qauto-ilp32 /F512000000

429.mcf: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch
-Qauto-ilp32 /F512000000

445.gobmk: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O2 -Qprec-div- -Qansi-alias -Qauto-ilp32
/F512000000

456.hmmr: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias
-Qauto-ilp32 /F512000000

458.sjeng: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll4 -Qauto-ilp32 /F512000000

462.libquantum: basepeak = yes

464.h264ref: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias
-Qauto-ilp32 /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 -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



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

<http://www.spec.org/cpu2006/flags/Intel-ic12-winx64-revB.20110808.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12-winx64-revB.20110808.xml>

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

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