



# SPEC® CINT2006 Result

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ASUSTeK Computer Inc.  
(Test Sponsor: Intel Corporation)

SPECint®2006 = 22.3

ASUS Sabertooth 990FX (AMD FX-8150)

SPECint\_base2006 = 20.8

CPU2006 license: 13

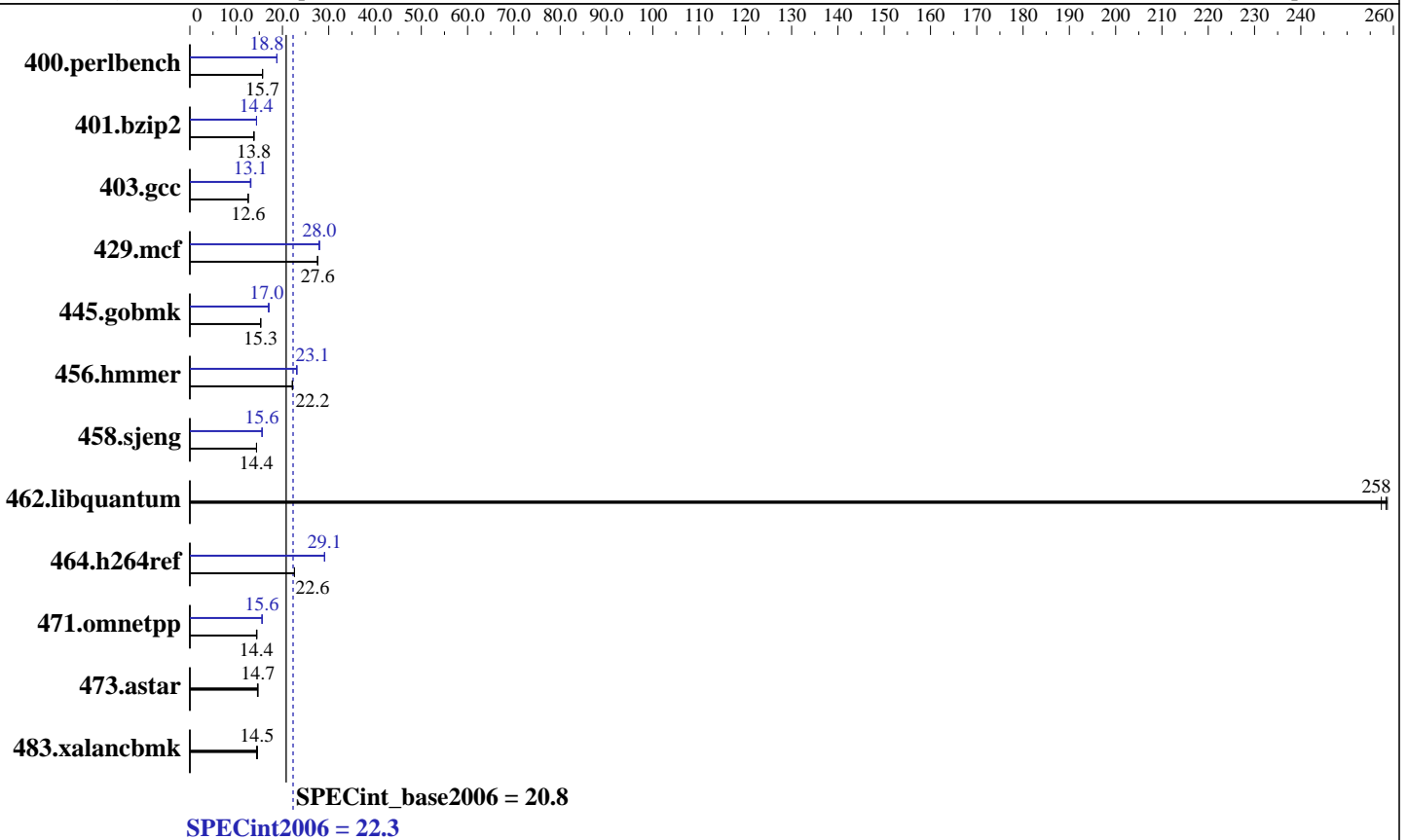
Test date: Oct-2011

Test sponsor: Intel Corporation

Hardware Availability: Nov-2011

Tested by: Intel Corporation

Software Availability: Apr-2011



## Hardware

CPU Name: AMD FX-8150  
 CPU Characteristics: AMD Turbo CORE technology up to 4.20 GHz  
 CPU MHz: 3600  
 FPU: Integrated  
 CPU(s) enabled: 8 cores, 1 chip, 8 cores/chip  
 CPU(s) orderable: 1 chip  
 Primary Cache: 256 KB I on chip per chip,  
 64 KB I shared / 2 cores;  
 16 KB D on chip per core  
 Secondary Cache: 8 MB I+D on chip per chip, 2 MB shared / 2 cores  
 L3 Cache: 8 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 8 GB (2 x 4 GB 2Rx4 PC3-10600U-9)  
 Disk Subsystem: Intel 160GB 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: 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	<b>624</b>	<b>15.7</b>	623	15.7	624	15.7	519	18.8	<b>520</b>	<b>18.8</b>	520	18.8
401.bzip2	<b>697</b>	<b>13.8</b>	697	13.9	698	13.8	671	14.4	670	14.4	<b>670</b>	<b>14.4</b>
403.gcc	<b>638</b>	<b>12.6</b>	637	12.6	640	12.6	<b>613</b>	<b>13.1</b>	609	13.2	614	13.1
429.mcf	331	27.6	331	27.6	<b>331</b>	<b>27.6</b>	326	28.0	<b>326</b>	<b>28.0</b>	327	27.9
445.gobmk	<b>687</b>	<b>15.3</b>	687	15.3	687	15.3	616	17.0	615	17.1	<b>615</b>	<b>17.0</b>
456.hmmer	422	22.1	420	22.2	<b>420</b>	<b>22.2</b>	405	23.1	404	23.1	<b>405</b>	<b>23.1</b>
458.sjeng	<b>838</b>	<b>14.4</b>	838	14.4	838	14.4	775	15.6	774	15.6	<b>774</b>	<b>15.6</b>
462.libquantum	<b>80.2</b>	<b>258</b>	80.1	259	80.5	257	<b>80.2</b>	<b>258</b>	80.1	259	80.5	257
464.h264ref	980	22.6	981	22.6	<b>981</b>	<b>22.6</b>	<b>761</b>	<b>29.1</b>	761	29.1	761	29.1
471.omnetpp	432	14.5	<b>433</b>	<b>14.4</b>	435	14.4	401	15.6	<b>400</b>	<b>15.6</b>	400	15.6
473.astar	479	14.6	477	14.7	<b>477</b>	<b>14.7</b>	479	14.6	477	14.7	<b>477</b>	<b>14.7</b>
483.xalancbmk	<b>477</b>	<b>14.5</b>	478	14.4	474	14.6	<b>477</b>	<b>14.5</b>	478	14.4	474	14.6

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

## 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

## General Notes

OMP\_NUM\_THREADS set to number of processors cores  
KMP\_AFFINITY set to granularity=fine,scatter

## 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

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## Base Portability Flags (Continued)

```

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

```

## Base Optimization Flags

C benchmarks:

```

/arch:SSE3 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qparallel
-Qauto-ilp32 /F512000000

```

C++ benchmarks:

```

/arch:SSE3 -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



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## Peak Optimization Flags

C benchmarks:

```

400.perlbench: /arch:SSE3(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: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
           -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qansi-alias
           -Qauto-ilp32 /F512000000

403.gcc: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
         -Qipo -O3 -Qprec-div- -Qauto-ilp32 /F512000000

429.mcf: /arch:SSE3 -Qipo -O3 -Qprec-div- -Qopt-prefetch
         -Qauto-ilp32 /F512000000

445.gobmk: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
           -Qipo -O2 -Qprec-div- -Qansi-alias -Qauto-ilp32
           /F512000000

456.hmmer: /arch:SSE3 -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias
           -Qauto-ilp32 /F512000000

458.sjeng: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
           -Qipo -O3 -Qprec-div- -Qunroll14 -Qauto-ilp32 /F512000000

462.libquantum: basepeak = yes

464.h264ref: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
             -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias
             -Qauto-ilp32 /F512000000

```

C++ benchmarks:

```

471.omnetpp: /arch:SSE3(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:

Continued on next page



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## Peak Other Flags (Continued)

403.gcc: -Dalloca=\_alloca

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic12-winx64-revC.20111012.html>  
<http://www.spec.org/cpu2006/flags/Intel-Windows-Platform-Settings-revC.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12-winx64-revC.20111012.xml>  
<http://www.spec.org/cpu2006/flags/Intel-Windows-Platform-Settings-revC.xml>

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For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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