



# SPEC® CFP2006 Result

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## ASUSTeK Computer Inc.

### SPECfp®\_rate2006 = 82.3

### Asus P6T Deluxe (Intel Core i7-940)

### SPECfp\_rate\_base2006 = 79.2

CPU2006 license: 13

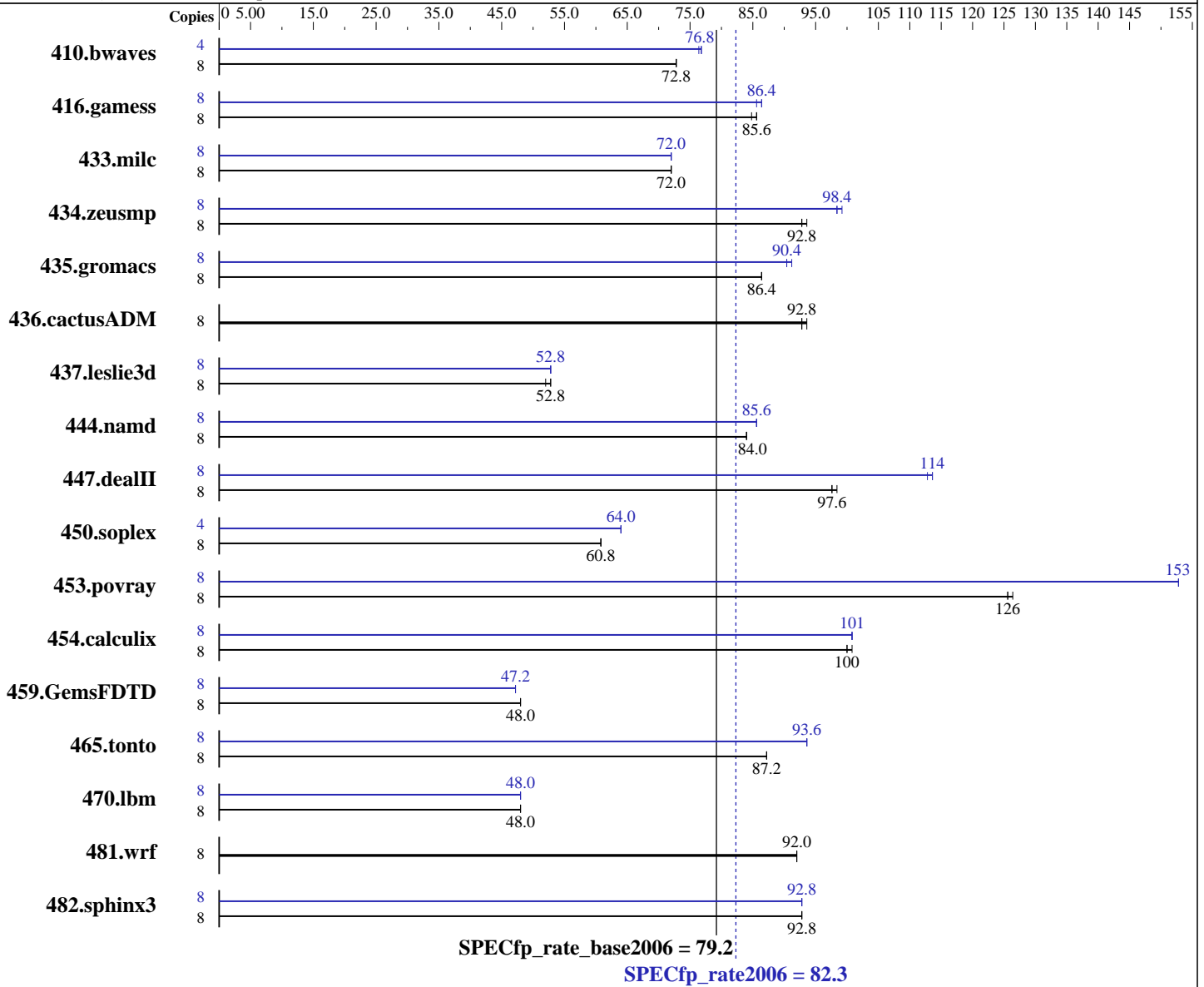
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Oct-2008

Hardware Availability: Nov-2008

Software Availability: Nov-2008



### Hardware

CPU Name: Intel Core i7-940  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.20 GHz  
 CPU MHz: 2933  
 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

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### Software

Operating System: Windows Vista Ultimate w/ SP1 (64-bit)  
 Compiler: Intel C++ Compiler Professional 11.0 for IA32  
 Build 20080930 Package ID: w\_cproc\_p\_11.0.054  
 Intel Visual Fortran Compiler Professional 11.0 for IA32  
 Build 20080930 Package ID: w\_cprof\_p\_11.0.054  
 Microsoft Visual Studio 2008 (for libraries)  
 Auto Parallel: No  
 File System: NTFS

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## Hardware (Continued)

L3 Cache: 8 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 12 GB (6 x 2GB Samsung M378B5673DZ1-CF8 DDR3-1066 CL7)  
 Disk Subsystem: 80 GB Intel X-25M SATA Solid-State Drive  
 Other Hardware: None

## Software (Continued)

System State: Default  
 Base Pointers: 32-bit  
 Peak Pointers: 32-bit  
 Other Software: SmartHeap Library Version 8.1 from <http://www.microquill.com/>

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	1487	72.8	<b>1486</b>	<b>72.8</b>	1486	72.8	4	709	76.8	<b>709</b>	<b>76.8</b>	710	76.4
416.gamess	8	<b>1827</b>	<b>85.6</b>	1839	84.8	1824	85.6	8	1830	85.6	1805	86.4	<b>1816</b>	<b>86.4</b>
433.milc	8	<b>1021</b>	<b>72.0</b>	1021	72.0	1022	72.0	8	<b>1023</b>	<b>72.0</b>	1022	72.0	1023	72.0
434.zeusmp	8	786	92.8	775	93.6	<b>783</b>	<b>92.8</b>	8	<b>740</b>	<b>98.4</b>	736	99.2	740	98.4
435.gromacs	8	659	86.4	<b>659</b>	<b>86.4</b>	660	86.4	8	<b>632</b>	<b>90.4</b>	628	91.2	632	90.4
436.cactusADM	8	<b>1028</b>	<b>92.8</b>	1025	93.6	1031	92.8	8	<b>1028</b>	<b>92.8</b>	1025	93.6	1031	92.8
437.leslie3d	8	1436	52.0	<b>1435</b>	<b>52.8</b>	1434	52.8	8	<b>1434</b>	<b>52.8</b>	1435	52.8	1433	52.8
444.namd	8	<b>766</b>	<b>84.0</b>	765	84.0	766	84.0	8	750	85.6	<b>749</b>	<b>85.6</b>	749	85.6
447.dealII	8	<b>935</b>	<b>97.6</b>	940	97.6	931	98.4	8	<b>808</b>	<b>114</b>	812	113	807	114
450.soplex	8	1095	60.8	1095	60.8	<b>1095</b>	<b>60.8</b>	4	<b>521</b>	<b>64.0</b>	521	64.0	521	64.0
453.povray	8	<b>338</b>	<b>126</b>	338	126	339	126	8	279	153	<b>279</b>	<b>153</b>	279	153
454.calculix	8	658	100	657	101	<b>658</b>	<b>100</b>	8	<b>653</b>	<b>101</b>	653	101	652	101
459.GemsFDTD	8	1774	48.0	<b>1771</b>	<b>48.0</b>	1769	48.0	8	1786	47.2	<b>1787</b>	<b>47.2</b>	1787	47.2
465.tonto	8	905	87.2	899	87.2	<b>901</b>	<b>87.2</b>	8	<b>844</b>	<b>93.6</b>	841	93.6	845	93.6
470.lbm	8	2303	48.0	<b>2303</b>	<b>48.0</b>	2303	48.0	8	2304	48.0	2303	48.0	<b>2303</b>	<b>48.0</b>
481.wrf	8	<b>972</b>	<b>92.0</b>	969	92.0	972	92.0	8	<b>972</b>	<b>92.0</b>	969	92.0	972	92.0
482.sphinx3	8	1687	92.8	<b>1687</b>	<b>92.8</b>	1687	92.8	8	<b>1685</b>	<b>92.8</b>	1685	92.8	1683	92.8

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.

## General Notes

Tested systems can be used with Shin-G ATX case,  
 PC Power and Cooling 1200W power supply  
 System was configured with nVidia GTX 280 discrete graphics card  
 Binaries were built on Windows Vista Ultimate (32-bit)



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## Compiler Invocation

C benchmarks:

icl -Qvc9 -Qc99

C++ benchmarks:

icl -Qvc9

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc9 -Qc99 ifort

## Portability Flags

436.cactusADM: -Qlowercase /assume:underscore  
444.namd: -TP  
447.dealII: -DDEAL\_II\_MEMBER\_VAR\_SPECIALIZATION\_BUG  
453.povray: -DSPEC\_CPU\_WINDOWS\_ICL  
454.calculix: -DSPEC\_CPU\_NOZMODIFIER -Qlowercase  
481.wrf: -DSPEC\_CPU\_WINDOWS\_ICL

## Base Optimization Flags

C benchmarks:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F1000000000

C++ benchmarks:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qcxx-features  
/F1000000000 shlw32m.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F1000000000

Benchmarks using both Fortran and C:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F1000000000

## Peak Optimization Flags

C benchmarks:

433.milc: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Oa /F1000000000

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## Peak Optimization Flags (Continued)

470.lbm: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch  
/F1000000000

482.sphinx3: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qunroll2 /F1000000000

C++ benchmarks:

444.namd: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Oa /F1000000000 shlw32m.lib  
-link /FORCE:MULTIPLE

447.dealII: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias  
-Qscalar-rep- /F1000000000 shlw32m.lib  
-link /FORCE:MULTIPLE

450.soplex: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- /F1000000000 shlw32m.lib  
-link /FORCE:MULTIPLE

453.povray: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll4 -Qansi-alias /F1000000000  
shlw32m.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

410.bwaves: -QxSSE4.2 -Qipo -O3 -Qprec-div- -Qopt-prefetch  
/F1000000000

416.gamess: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll2 -Ob0 -Qansi-alias  
-Qscalar-rep- /F1000000000

434.zeusmp: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- /F1000000000

437.leslie3d: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qopt-prefetch /F1000000000

459.GemsFDTD: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll2 -Ob0 -Qopt-prefetch  
/F1000000000

465.tonto: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll4 -Qauto /F1000000000

Benchmarks using both Fortran and C:

435.gromacs: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qopt-prefetch /F1000000000

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## Peak Optimization Flags (Continued)

436.cactusADM: basepeak = yes

454.calculix: -QxSSE4.2 -Qipo -O3 -Qprec-div- /F1000000000

481.wrf: basepeak = yes

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-win32-revA.html>

<http://www.spec.org/cpu2006/flags/Intel-Win32-Platform.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-win32-revA.xml>

<http://www.spec.org/cpu2006/flags/Intel-Win32-Platform.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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