



SPEC® CFP2006 Result

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ASUSTeK Computer Inc.
(Test Sponsor: Intel Corporation)

SPECfp®_rate2006 = 58.8

ASUSTek M4A89GTD PRO/USB3 (Athlon II X4 635)

SPECfp_rate_base2006 = 58.2

CPU2006 license: 13

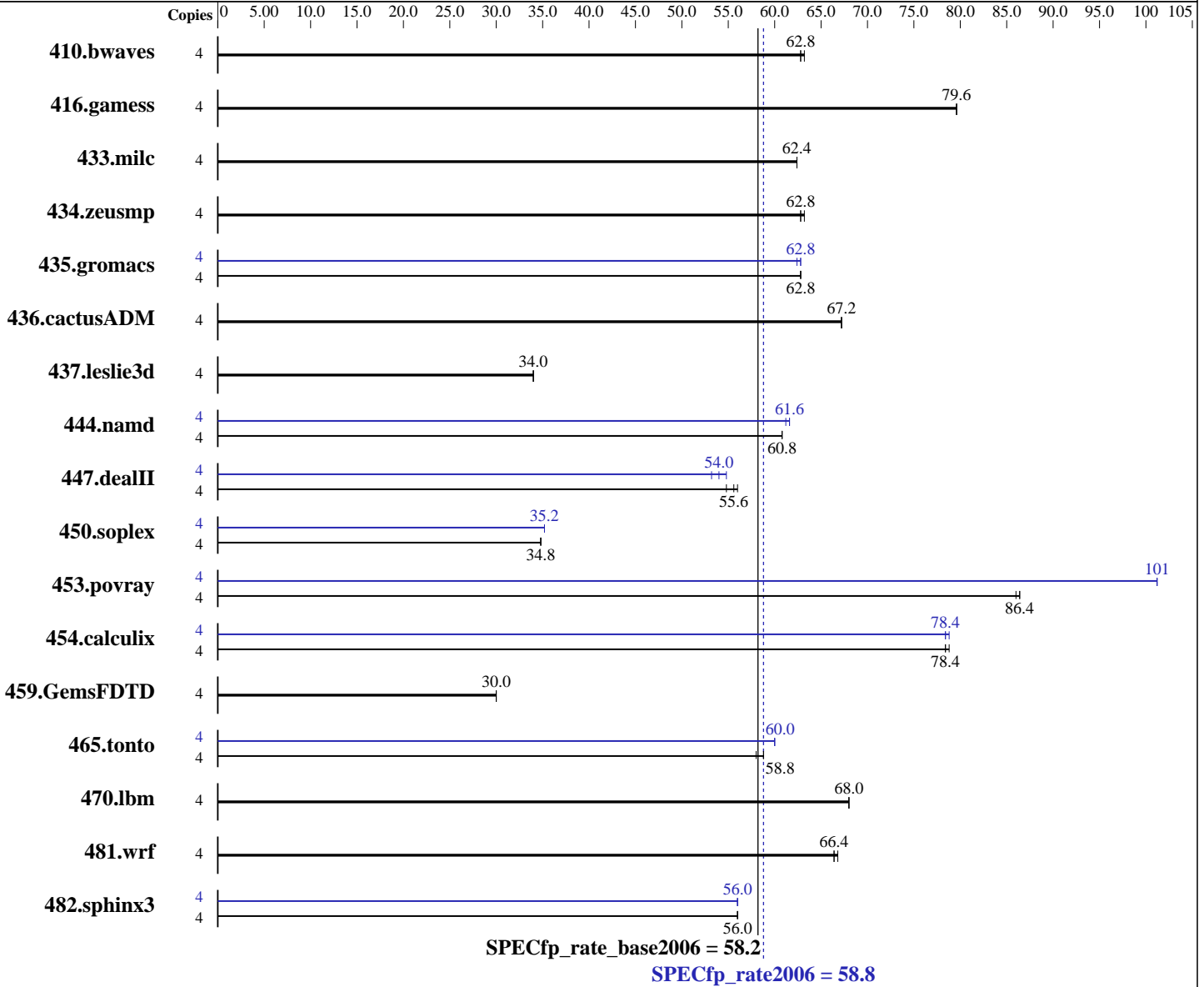
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Jun-2011

Hardware Availability: Feb-2011

Software Availability: Apr-2011



Hardware

CPU Name: AMD Athlon II X4 635
 CPU Characteristics:
 CPU MHz: 2900
 FPU: Integrated
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip
 CPU(s) orderable: 1 chip
 Primary Cache: 64 KB I + 64 KB D on chip per core
 Secondary Cache: 512 KB I+D on chip per core

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Software

Operating System: Windows 7 Ultimate (64-bit)
 Compiler: Intel C++ Compiler XE for Intel 64
 Version 12.0.3.176 Build 20110309
 Intel Visual Fortran Compiler XE for Intel 64
 Version 12.0.3.176 Build 20110309
 Microsoft Visual Studio 2008 Professional SP1
 (for libraries)
 Auto Parallel: No
 File System: NTFS

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L3 Cache: None
Other Cache: None
Memory: 4 GB (2 x 2 GB 2Rx4 PC3-10600U-9)
Disk Subsystem: 1 TB Seagate SATA, 7200 RPM
Other Hardware: None

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/>

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	863	62.8	859	63.2	868	62.8	4	863	62.8	859	63.2	868	62.8
416.gamess	4	985	79.6	985	79.6	985	79.6	4	985	79.6	985	79.6	985	79.6
433.milc	4	589	62.4	590	62.4	590	62.4	4	589	62.4	590	62.4	590	62.4
434.zeusmp	4	578	63.2	580	62.8	579	62.8	4	578	63.2	580	62.8	579	62.8
435.gromacs	4	454	62.8	456	62.8	455	62.8	4	456	62.8	456	62.8	456	62.4
436.cactusADM	4	710	67.2	711	67.2	710	67.2	4	710	67.2	711	67.2	710	67.2
437.leslie3d	4	1100	34.0	1101	34.0	1101	34.0	4	1100	34.0	1101	34.0	1101	34.0
444.namd	4	529	60.8	529	60.8	529	60.8	4	522	61.6	523	61.2	522	61.6
447.dealII	4	815	56.0	834	54.8	822	55.6	4	833	54.8	862	53.2	850	54.0
450.soplex	4	959	34.8	961	34.8	961	34.8	4	945	35.2	945	35.2	944	35.2
453.povray	4	247	86.4	247	86.0	247	86.4	4	210	101	210	101	210	101
454.calculix	4	419	78.8	422	78.4	421	78.4	4	421	78.4	420	78.8	421	78.4
459.GemsFDTD	4	1411	30.0	1412	30.0	1413	30.0	4	1411	30.0	1412	30.0	1413	30.0
465.tonto	4	669	58.8	678	58.0	668	58.8	4	656	60.0	658	60.0	656	60.0
470.lbm	4	808	68.0	807	68.0	808	68.0	4	808	68.0	807	68.0	808	68.0
481.wrf	4	672	66.4	669	66.8	672	66.4	4	672	66.4	669	66.8	672	66.4
482.sphinx3	4	1396	56.0	1394	56.0	1394	56.0	4	1396	56.0	1396	56.0	1396	56.0

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

General Notes

Tested systems can be used with Shin-G ATX case,
PC Power and Cooling 1200W power supply

Base Compiler Invocation

C benchmarks:
icl -Qvc9 -Qstd=c99

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Base Compiler Invocation (Continued)

C++ benchmarks:
icl -Qvc9

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qvc9 -Qstd=c99 ifort

Base Portability Flags

410.bwaves: -DSPEC_CPU_P64 -names:lowercase
416.gamess: -DSPEC_CPU_P64
433.milc: -DSPEC_CPU_P64
434.zeusmp: -DSPEC_CPU_P64
435.gromacs: -DSPEC_CPU_P64
436.cactusADM: -DSPEC_CPU_P64 -names:lowercase /assume:underscore
437.leslie3d: -DSPEC_CPU_P64
444.namd: -DSPEC_CPU_P64 /TP
447.dealII: -DSPEC_CPU_P64 -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
450.soplex: -DSPEC_CPU_P64
453.povray: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_P64 -DSPEC_CPU_NOZMODIFIER -names:lowercase
459.GemsFDTD: -DSPEC_CPU_P64
465.tonto: -DSPEC_CPU_P64
470.lbm: -DSPEC_CPU_P64
481.wrf: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
482.sphinx3: -DSPEC_CPU_P64

Base Optimization Flags

C benchmarks:
/arch:SSE3 -Qipo -O3 -Qprec-div- -Qansi-alias -Qauto-ilp32
/F1000000000 -link /FORCE:MULTIPLE

C++ benchmarks:
/arch:SSE3 -Qipo -O3 -Qprec-div- -Qansi-alias -Qcxx-features
-Qauto-ilp32 /F1000000000 shlw64M.lib -link /FORCE:MULTIPLE

Fortran benchmarks:
/arch:SSE3 -Qipo -O3 -Qprec-div- -Qansi-alias /F1000000000
-link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:
/arch:SSE3 -Qipo -O3 -Qprec-div- -Qansi-alias -Qauto-ilp32
/F1000000000 -link /FORCE:MULTIPLE



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Peak Compiler Invocation

C benchmarks:
icl -Qvc9 -Qstd=c99
C++ benchmarks:
icl -Qvc9
Fortran benchmarks:
ifort
Benchmarks using both Fortran and C:
icl -Qvc9 -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: /arch:SSE3 -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias
-Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE
C++ benchmarks:
444.namd: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Oa -Qauto-ilp32 /F1000000000
shlW64M.lib -link /FORCE:MULTIPLE
447.dealII: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias
-Qscalar-rep- -Qauto-ilp32 /F1000000000 shlW64M.lib
-link /FORCE:MULTIPLE
450.soplex: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qauto-ilp32 /F1000000000 shlW64M.lib
-link /FORCE:MULTIPLE
453.povray: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qopt-prefetch -Qauto-ilp32
/F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

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Peak Optimization Flags (Continued)

Fortran benchmarks:

- 410.bwaves: basepeak = yes
- 416.gamess: basepeak = yes
- 434.zeusmp: basepeak = yes
- 437.leslie3d: basepeak = yes
- 459.GemsFDTD: basepeak = yes
- 465.tonto: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll4 -Qauto /F1000000000
-link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:

- 435.gromacs: /arch:SSE3(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qopt-prefetch -Qauto-ilp32
/F1000000000 -link /FORCE:MULTIPLE
- 436.cactusADM: basepeak = yes
- 454.calculix: /arch:SSE3 -Qipo -O3 -Qprec-div- -Qauto-ilp32
/F1000000000 -link /FORCE:MULTIPLE
- 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-ic12-winx64-revC.html>
<http://www.spec.org/cpu2006/flags/Intel-Windows-Platform-Settings.20110719.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12-winx64-revC.xml>
<http://www.spec.org/cpu2006/flags/Intel-Windows-Platform-Settings.20110719.xml>

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

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