



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.  
(Test Sponsor: Intel Corporation)

SPECfp®2006 = 25.6

Asus M4A89GTD-PRO (Phenom II X2 555)

SPECfp\_base2006 = 24.9

CPU2006 license: 13

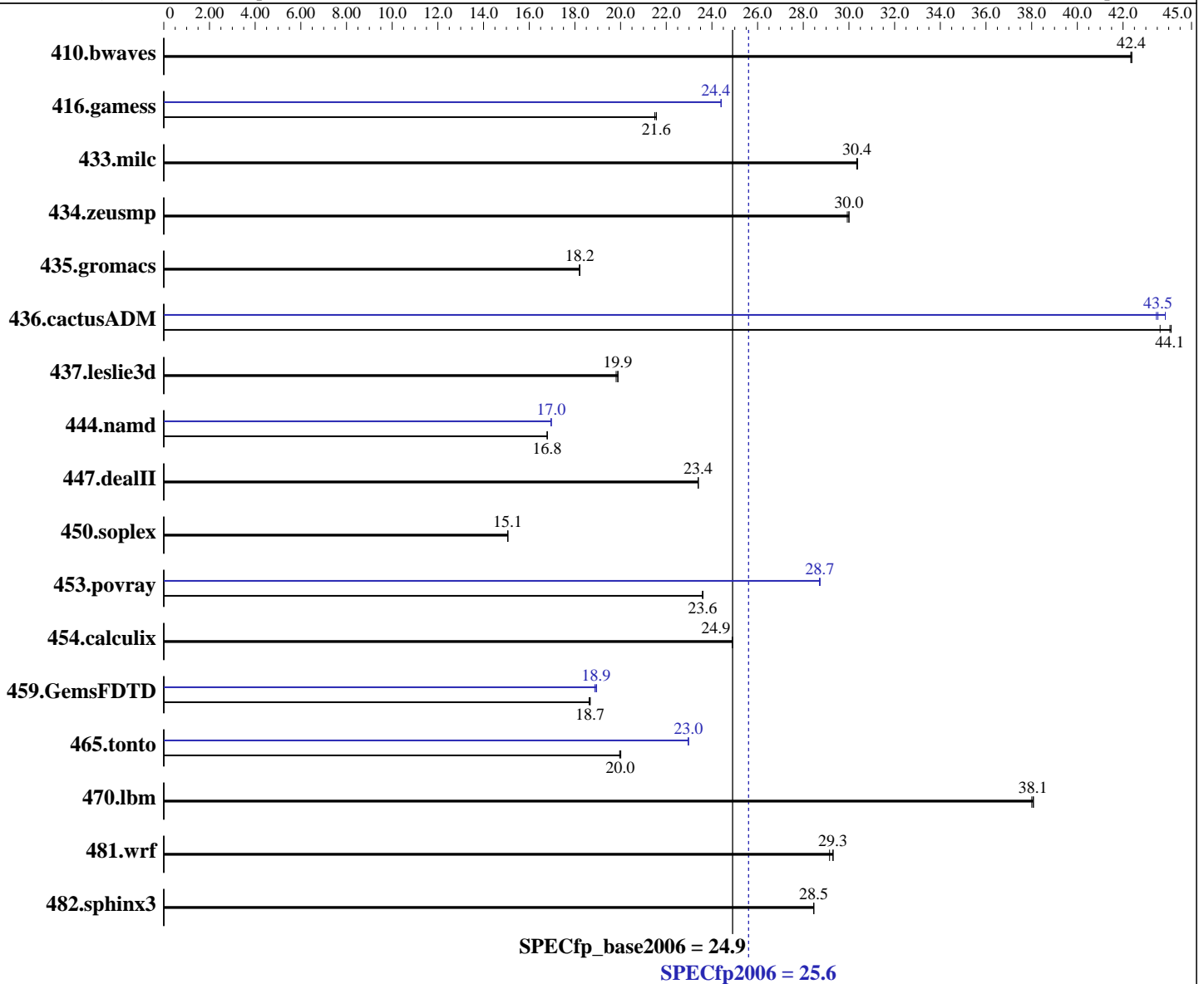
Test date: May-2011

Test sponsor: Intel Corporation

Hardware Availability: Apr-2010

Tested by: Intel Corporation

Software Availability: Apr-2011



### Hardware

CPU Name: AMD Phenom II X2 555  
 CPU Characteristics:  
 CPU MHz: 3200  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 2 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

Continued on next page

### 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: Yes  
 File System: NTFS

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.  
(Test Sponsor: Intel Corporation)

SPECfp2006 = 25.6

Asus M4A89GTD-PRO (Phenom II X2 555)

SPECfp\_base2006 = 24.9

CPU2006 license: 13

Test date: May-2011

Test sponsor: Intel Corporation

Hardware Availability: Apr-2010

Tested by: Intel Corporation

Software Availability: Apr-2011

L3 Cache: 6 MB I+D on chip per chip  
Other Cache: None  
Memory: 8 GB (2 x 4 GB 2Rx8 PC3-10600U-9)  
Disk Subsystem: Seagate 1 TB 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					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	<u>321</u>	<u>42.4</u>	321	42.4	321	42.3	<u>321</u>	<u>42.4</u>	321	42.4	321	42.3
416.gamess	<u>908</u>	<u>21.6</u>	908	21.6	911	21.5	802	24.4	<u>802</u>	<u>24.4</u>	802	24.4
433.milc	302	30.4	303	30.3	<u>302</u>	<u>30.4</u>	302	30.4	303	30.3	<u>302</u>	<u>30.4</u>
434.zeusmp	304	29.9	<u>303</u>	<u>30.0</u>	303	30.0	304	29.9	<u>303</u>	<u>30.0</u>	303	30.0
435.gromacs	392	18.2	392	18.2	<u>392</u>	<u>18.2</u>	392	18.2	392	18.2	<u>392</u>	<u>18.2</u>
436.cactusADM	271	44.1	274	43.6	<u>271</u>	<u>44.1</u>	275	43.5	<u>275</u>	<u>43.5</u>	272	43.9
437.leslie3d	<u>473</u>	<u>19.9</u>	473	19.9	475	19.8	<u>473</u>	<u>19.9</u>	473	19.9	475	19.8
444.namd	478	16.8	<u>478</u>	<u>16.8</u>	478	16.8	473	17.0	473	17.0	<u>473</u>	<u>17.0</u>
447.dealII	489	23.4	489	23.4	<u>489</u>	<u>23.4</u>	489	23.4	489	23.4	<u>489</u>	<u>23.4</u>
450.soplex	<u>554</u>	<u>15.1</u>	553	15.1	554	15.1	<u>554</u>	<u>15.1</u>	553	15.1	554	15.1
453.povray	<u>225</u>	<u>23.6</u>	226	23.6	225	23.6	185	28.7	<u>185</u>	<u>28.7</u>	185	28.7
454.calculix	331	24.9	<u>331</u>	<u>24.9</u>	331	24.9	331	24.9	<u>331</u>	<u>24.9</u>	331	24.9
459.GemsFDTD	570	18.6	<u>568</u>	<u>18.7</u>	568	18.7	562	18.9	560	19.0	<u>561</u>	<u>18.9</u>
465.tonto	492	20.0	<u>492</u>	<u>20.0</u>	493	20.0	428	23.0	429	23.0	<u>428</u>	<u>23.0</u>
470.lbm	<u>361</u>	<u>38.1</u>	361	38.1	362	38.0	<u>361</u>	<u>38.1</u>	361	38.1	362	38.0
481.wrf	381	29.3	383	29.2	<u>381</u>	<u>29.3</u>	381	29.3	383	29.2	<u>381</u>	<u>29.3</u>
482.sphinx3	685	28.5	685	28.5	<u>685</u>	<u>28.5</u>	685	28.5	685	28.5	<u>685</u>	<u>28.5</u>

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

## Base Compiler Invocation

C benchmarks:  
icl -Qvc9 -Qstd=c99

C++ benchmarks:  
icl -Qvc9

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.  
(Test Sponsor: Intel Corporation)

SPECfp2006 = 25.6

Asus M4A89GTD-PRO (Phenom II X2 555)

SPECfp\_base2006 = 24.9

CPU2006 license: 13

Test date: May-2011

Test sponsor: Intel Corporation

Hardware Availability: Apr-2010

Tested by: Intel Corporation

Software Availability: Apr-2011

## Base Compiler Invocation (Continued)

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 -Qparallel -Qansi-alias -Qopt-prefetch  
-Qauto-ilp32 /F1000000000

C++ benchmarks:

/arch:SSE3 -Qipo -O3 -Qparallel -Qansi-alias -Qopt-prefetch  
-Qcxx-features -Qauto-ilp32 -Qprec-div- /F1000000000 shlw64M.lib  
-link /FORCE:MULTIPLE

Fortran benchmarks:

/arch:SSE3 -Qipo -O3 -Qparallel -Qansi-alias -Qopt-prefetch  
/F1000000000

Benchmarks using both Fortran and C:

/arch:SSE3 -Qipo -O3 -Qparallel -Qansi-alias -Qopt-prefetch  
-Qauto-ilp32 /F1000000000



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.  
(Test Sponsor: Intel Corporation)

SPECfp2006 = 25.6

Asus M4A89GTD-PRO (Phenom II X2 555)

SPECfp\_base2006 = 24.9

CPU2006 license: 13

Test date: May-2011

Test sponsor: Intel Corporation

Hardware Availability: Apr-2010

Tested by: Intel Corporation

Software Availability: Apr-2011

## 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: basepeak = yes

C++ benchmarks:

444.namd: /arch:SSE3(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Oa -Qauto-ilp32 /F1000000000  
sh1W64M.lib -link /FORCE:MULTIPLE

447.dealII: basepeak = yes

450.soplex: basepeak = yes

453.povray: /arch:SSE3(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll4 -Qansi-alias -Qauto-ilp32  
/F1000000000 sh1W64M.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: /arch:SSE3(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll2 -Ob0 -Qansi-alias  
-Qscalar-rep- /F1000000000

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.  
(Test Sponsor: Intel Corporation)

SPECfp2006 = 25.6

Asus M4A89GTD-PRO (Phenom II X2 555)

SPECfp\_base2006 = 24.9

CPU2006 license: 13

Test date: May-2011

Test sponsor: Intel Corporation

Hardware Availability: Apr-2010

Tested by: Intel Corporation

Software Availability: Apr-2011

## Peak Optimization Flags (Continued)

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: /arch:SSE3(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll2 -Qopt-prefetch -Qparallel  
/F1000000000

465.tonto: /arch:SSE3(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qunroll4 -Qauto -Qinline-calloc  
/F1000000000

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: /arch:SSE3(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qopt-prefetch -Qparallel -Qunroll2  
-Qauto-ilp32 /F1000000000

454.calculix: basepeak = yes

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-revB.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-revB.xml>

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

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.1.

Report generated on Wed Jul 23 21:20:19 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 19 July 2011.