



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Intel Corporation

### SPECfp®\_rate2006 = 87.2

### Intel DQ87PG Motherboard (Intel Core i3-4130)

### SPECfp\_rate\_base2006 = 86.1

CPU2006 license: 13

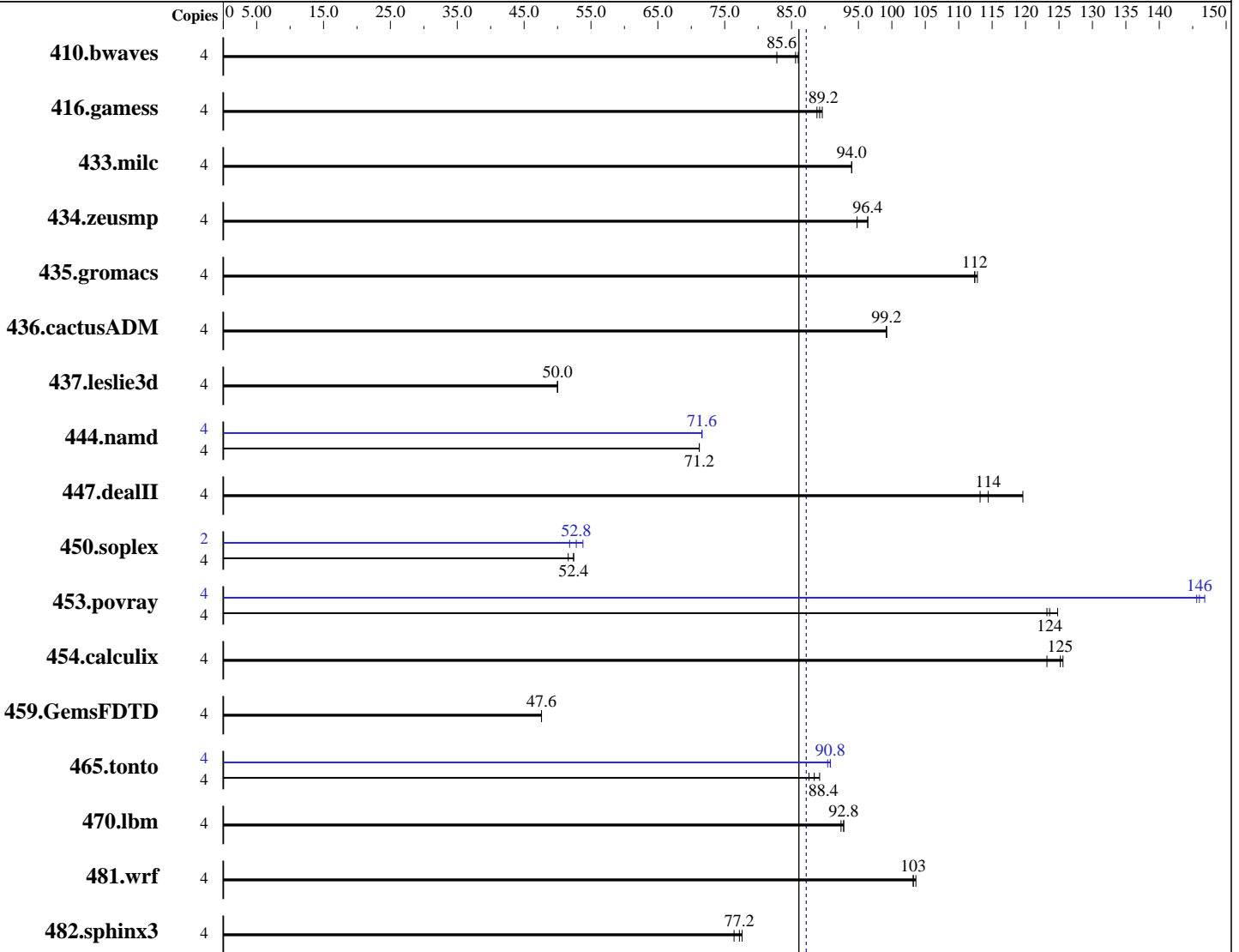
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Oct-2014

Hardware Availability: May-2014

Software Availability: Oct-2013



SPECfp\_rate\_base2006 = 86.1

SPECfp\_rate2006 = 87.2

### Hardware

CPU Name: Intel Core i3-4150  
 CPU Characteristics:  
 CPU MHz: 3500  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 2 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

Continued on next page

### Software

Operating System: Microsoft Windows 7 Enterprise 6.1.7601 Service Pack 1 Build 7601  
 Compiler: C/C++: Version 14.0.1.139 of Intel C++ Studio XE for Windows;  
 Fortran: Version 14.0.1.139 of Intel Fortran Studio XE for Windows;  
 Libraries: Version 16.00.30319.01 of Microsoft Visual Studio 2010 Professional SP1  
 Auto Parallel: No

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Intel Corporation

SPECfp\_rate2006 = **87.2**

Intel DQ87PG Motherboard (Intel Core i3-4130)

SPECfp\_rate\_base2006 = **86.1**

CPU2006 license: 13

Test date: Oct-2014

Test sponsor: Intel Corporation

Hardware Availability: May-2014

Tested by: Intel Corporation

Software Availability: Oct-2013

L3 Cache: 3 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 4 GB (2 x 2 GB 2Rx4 PC3-12800U-11)  
 Disk Subsystem: 40 GB Intel SSD SA2CT040G3  
 Other Hardware: None

File System: NTFS  
 System State: Default  
 Base Pointers: 32/64-bit  
 Peak Pointers: 32/64-bit  
 Other Software: SmartHeap Library Version 10.0 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	658	82.8	<b>634</b>	<b>85.6</b>	632	86.0	4	658	82.8	<b>634</b>	<b>85.6</b>	632	86.0
416.gamess	4	875	89.6	<b>879</b>	<b>89.2</b>	880	88.8	4	875	89.6	<b>879</b>	<b>89.2</b>	880	88.8
433.milc	4	<b>390</b>	<b>94.0</b>	391	94.0	390	94.0	4	<b>390</b>	<b>94.0</b>	391	94.0	390	94.0
434.zeusmp	4	384	94.8	378	96.4	<b>378</b>	<b>96.4</b>	4	384	94.8	378	96.4	<b>378</b>	<b>96.4</b>
435.gromacs	4	254	112	254	113	<b>254</b>	<b>112</b>	4	254	112	254	113	<b>254</b>	<b>112</b>
436.cactusADM	4	482	99.2	481	99.2	<b>482</b>	<b>99.2</b>	4	482	99.2	481	99.2	<b>482</b>	<b>99.2</b>
437.leslie3d	4	<b>750</b>	<b>50.0</b>	754	50.0	750	50.0	4	<b>750</b>	<b>50.0</b>	754	50.0	750	50.0
444.namd	4	450	71.2	451	71.2	<b>450</b>	<b>71.2</b>	4	<b>447</b>	<b>71.6</b>	447	71.6	448	71.6
447.dealII	4	<b>401</b>	<b>114</b>	383	120	404	113	4	<b>401</b>	<b>114</b>	383	120	404	113
450.soplex	4	646	51.6	<b>637</b>	<b>52.4</b>	634	52.4	2	322	51.8	311	53.8	<b>316</b>	<b>52.8</b>
453.povray	4	173	123	170	125	<b>172</b>	<b>124</b>	4	146	146	<b>146</b>	<b>146</b>	145	147
454.calculix	4	263	126	<b>263</b>	<b>125</b>	268	123	4	263	126	<b>263</b>	<b>125</b>	268	123
459.GemsFDTD	4	<b>890</b>	<b>47.6</b>	894	47.6	890	47.6	4	<b>890</b>	<b>47.6</b>	894	47.6	890	47.6
465.tonto	4	<b>445</b>	<b>88.4</b>	449	87.6	442	89.2	4	<b>433</b>	<b>90.8</b>	435	90.4	433	90.8
470.lbm	4	591	92.8	<b>593</b>	<b>92.8</b>	595	92.4	4	591	92.8	<b>593</b>	<b>92.8</b>	595	92.4
481.wrf	4	<b>432</b>	<b>103</b>	432	104	433	103	4	<b>432</b>	<b>103</b>	432	104	433	103
482.sphinx3	4	1023	76.4	1007	77.6	<b>1009</b>	<b>77.2</b>	4	1023	76.4	1007	77.6	<b>1009</b>	<b>77.2</b>

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

## Compiler Invocation Notes

To compile these binaries, the Intel Compiler 14.0 was set up to generate 64-bit binaries with the command:  
 "ipsxe-comp-vars.bat intel64 vs2010" (shortcut provided in the Intel(r) Parallel Studio XE 2013 program folder)

## Submit Notes

Processes were bound to specific processors using the start command with the /affinity switch. The config file option 'submit' was used to generate the affinity mask for each process.



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp\_rate2006 = 87.2

Intel DQ87PG Motherboard (Intel Core i3-4130)

SPECfp\_rate\_base2006 = 86.1

CPU2006 license: 13

Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Oct-2014

Hardware Availability: May-2014

Software Availability: Oct-2013

## Platform Notes

Sysinfo program C:\SPEC14.0/Docs/sysinfo  
\$Rev: 6775 \$ \$Date:: 2011-08-16 #\$ \8787f7622badcf24e01c368b1db4377c  
running on Clt7C05070FB2EF Tue Oct 21 09:53:36 2014

This section contains SUT (System Under Test) info as seen by  
some common utilities. To remove or add to this section, see:  
<http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

Trying 'systeminfo'

OS Name : Microsoft Windows 7 Enterprise  
OS Version : 6.1.7601 Service Pack 1 Build 7601  
System Manufacturer: INTEL\_  
System Model : DQ87PG\_\_  
Processor(s) : 1 Processor(s) Installed.  
 [01]: Intel64 Family 6 Model 60 Stepping 3 GenuineIntel ~3500 Mhz  
BIOS Version : Intel(R) Corp. PGQ8710H.86A.0148.2014.0804.1451, 8/4/2014  
Total Physical Memory: 3,909 MB

Trying 'wmic cpu get /value'

DeviceID : CPU0  
L2CacheSize : 512  
L3CacheSize : 3072  
MaxClockSpeed : 3500  
Name : Intel(R) Core(TM) i3-4150 CPU @ 3.50GHz  
NumberOfCores : 2  
NumberOfLogicalProcessors: 4

(End of data from sysinfo program)

## Component Notes

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

## General Notes

Binaries compiled on a system with 1x Intel Core i7-860 CPU  
+ 8GB memory using Windows 7 Enterprise 64-bit

## Base Compiler Invocation

C benchmarks:

icl -Qvc10 -Qstd=c99

C++ benchmarks:

icl -Qvc10

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp\_rate2006 = 87.2

Intel DQ87PG Motherboard (Intel Core i3-4130)

SPECfp\_rate\_base2006 = 86.1

CPU2006 license: 13

Test date: Oct-2014

Test sponsor: Intel Corporation

Hardware Availability: May-2014

Tested by: Intel Corporation

Software Availability: Oct-2013

## Base Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc10 -Qstd=c99 ifort

## Base Portability Flags

410.bwaves: -DSPEC\_CPU\_P64  
 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  
 -Qoption,cpp,--ms\_incompat\_treatment\_of\_commas\_in\_macros  
 450.soplex: -DSPEC\_CPU\_P64  
 453.povray: -DSPEC\_CPU\_P64 -DSPEC\_CPU\_NEED\_INVHYP -DNEED\_INVHYP  
 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:

-QxCORE-AVX2 -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch  
-Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

C++ benchmarks:

-QxCORE-AVX2 -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch  
-Qcxx-features -Qauto-ilp32 /F1000000000 shlw64M.lib  
-link /FORCE:MULTIPLE

Fortran benchmarks:

-QxCORE-AVX2 -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch  
/F1000000000 -link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:

-QxCORE-AVX2 -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch  
-Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp\_rate2006 = 87.2

Intel DQ87PG Motherboard (Intel Core i3-4130)

SPECfp\_rate\_base2006 = 86.1

CPU2006 license: 13

Test date: Oct-2014

Test sponsor: Intel Corporation

Hardware Availability: May-2014

Tested by: Intel Corporation

Software Availability: Oct-2013

## Peak Compiler Invocation

C benchmarks:

icl -Qvc10 -Qstd=c99

C++ benchmarks:

icl -Qvc10

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc10 -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: -QxCORE-AVX2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Oa -Qauto-ilp32 /F1000000000  
shlW64M.lib -link /FORCE:MULTIPLE

447.dealIII: basepeak = yes

450.soplex: -QxCORE-AVX2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qauto-ilp32 /F1000000000 shlW64M.lib  
-link /FORCE:MULTIPLE

453.povray: -QxCORE-AVX2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Qopt-prefetch -Qauto-ilp32  
/F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

410.bwaves: basepeak = yes

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp\_rate2006 = 87.2

Intel DQ87PG Motherboard (Intel Core i3-4130)

SPECfp\_rate\_base2006 = 86.1

CPU2006 license: 13

Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Oct-2014

Hardware Availability: May-2014

Software Availability: Oct-2013

## Peak Optimization Flags (Continued)

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: -QxCORE-AVX2(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: basepeak = yes

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

481.wrf: basepeak = yes

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

<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-windows.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-windows.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 v1.2.  
Report generated on Tue Nov 18 16:33:38 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 18 November 2014.