



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Intel Corporation

SPECfp®2006 = 45.9

Intel DH87MC Motherboard (Intel Celeron G1820)

SPECfp\_base2006 = 45.1

CPU2006 license: 13

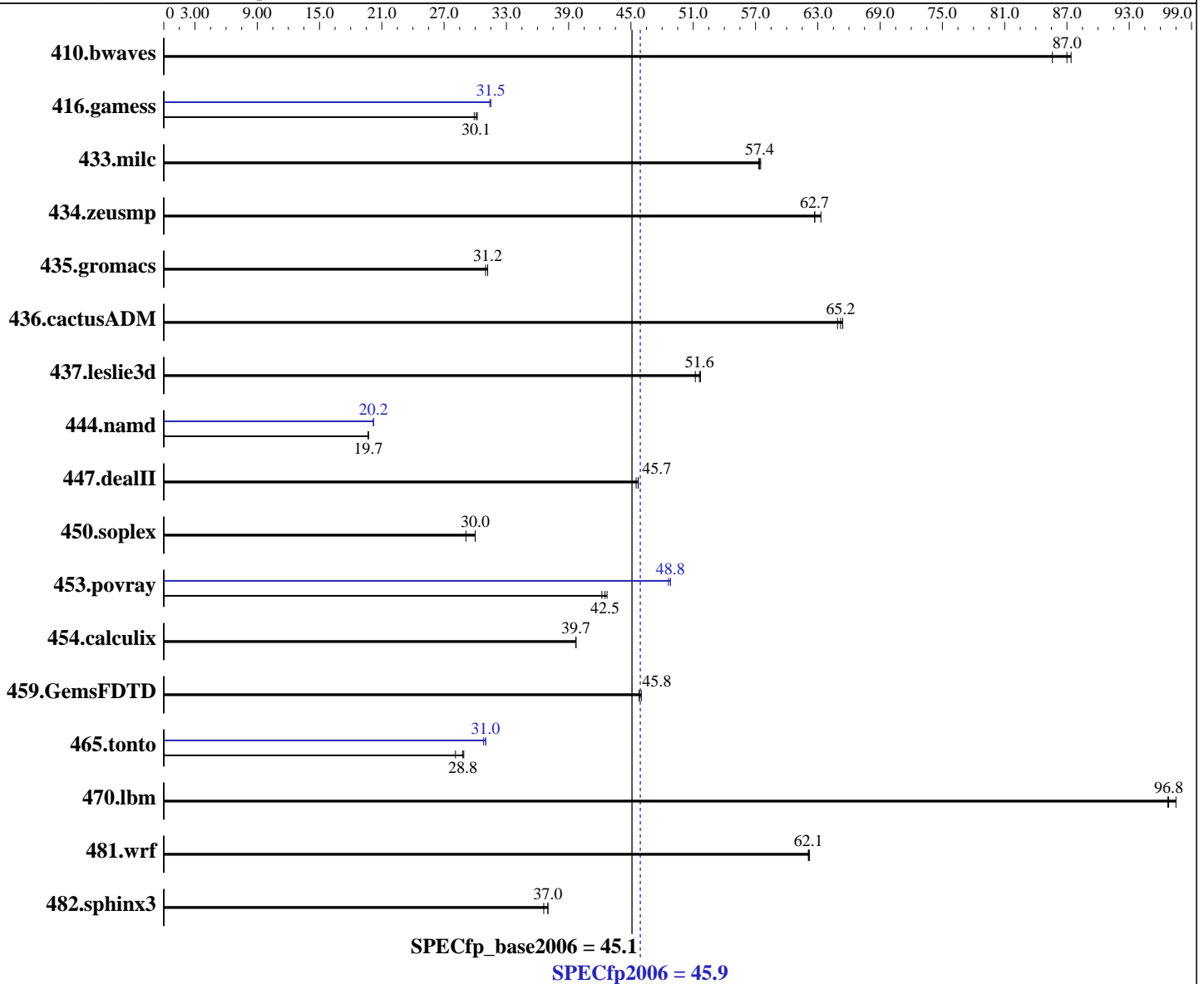
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Jun-2014

Hardware Availability: Dec-2013

Software Availability: Oct-2013



### Hardware

CPU Name: Intel Celeron G1820  
 CPU Characteristics:  
 CPU MHz: 2694  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip  
 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 8.1 Pro  
 6.3.9600 N/A Build 9600  
 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: Yes

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Intel Corporation

SPECfp2006 = **45.9**

Intel DH87MC Motherboard (Intel Celeron G1820)

SPECfp\_base2006 = **45.1**

CPU2006 license: 13

Test date: Jun-2014

Test sponsor: Intel Corporation

Hardware Availability: Dec-2013

Tested by: Intel Corporation

Software Availability: Oct-2013

L3 Cache: 2 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 8 GB (2 x 4 GB 2Rx4 PC3-12800U-11, running at 1333 MHz and CL9)  
 Disk Subsystem: 1 TB Seagate SATA HDD, 7200 RPM  
 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					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	156	87.4	159	85.6	<b>156</b>	<b>87.0</b>	156	87.4	159	85.6	<b>156</b>	<b>87.0</b>
416.gamess	<b>650</b>	<b>30.1</b>	654	29.9	649	30.2	<b>622</b>	<b>31.5</b>	624	31.4	622	31.5
433.milc	160	57.5	160	57.3	<b>160</b>	<b>57.4</b>	160	57.5	160	57.3	<b>160</b>	<b>57.4</b>
434.zeusmp	<b>145</b>	<b>62.7</b>	144	63.3	145	62.7	<b>145</b>	<b>62.7</b>	144	63.3	145	62.7
435.gromacs	229	31.2	230	31.0	<b>229</b>	<b>31.2</b>	229	31.2	230	31.0	<b>229</b>	<b>31.2</b>
436.cactusADM	<b>183</b>	<b>65.2</b>	184	64.9	183	65.4	<b>183</b>	<b>65.2</b>	184	64.9	183	65.4
437.leslie3d	184	51.2	182	51.7	<b>182</b>	<b>51.6</b>	184	51.2	182	51.7	<b>182</b>	<b>51.6</b>
444.namd	406	19.7	<b>406</b>	<b>19.7</b>	406	19.7	<b>396</b>	<b>20.2</b>	396	20.2	396	20.2
447.dealII	250	45.7	251	45.5	<b>250</b>	<b>45.7</b>	250	45.7	251	45.5	<b>250</b>	<b>45.7</b>
450.soplex	<b>278</b>	<b>30.0</b>	287	29.1	278	30.0	<b>278</b>	<b>30.0</b>	287	29.1	278	30.0
453.povray	125	42.7	<b>125</b>	<b>42.5</b>	126	42.2	109	48.6	<b>109</b>	<b>48.8</b>	109	48.8
454.calculix	208	39.7	208	39.7	<b>208</b>	<b>39.7</b>	208	39.7	208	39.7	<b>208</b>	<b>39.7</b>
459.GemsFDTD	<b>232</b>	<b>45.8</b>	232	45.8	231	46.0	<b>232</b>	<b>45.8</b>	232	45.8	231	46.0
465.tonto	351	28.1	341	28.9	<b>342</b>	<b>28.8</b>	319	30.8	<b>318</b>	<b>31.0</b>	317	31.0
470.lbm	141	97.5	142	96.7	<b>142</b>	<b>96.8</b>	141	97.5	142	96.7	<b>142</b>	<b>96.8</b>
481.wrf	180	62.1	<b>180</b>	<b>62.1</b>	180	62.2	180	62.1	<b>180</b>	<b>62.1</b>	180	62.2
482.sphinx3	527	37.0	532	36.6	<b>527</b>	<b>37.0</b>	527	37.0	532	36.6	<b>527</b>	<b>37.0</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)

## Platform Notes

Sysinfo program C:\SPEC14.0\Docs\sysinfo  
 \$Rev: 6775 \$ \$Date:: 2011-08-16 #\$ \8787f7622badcf24e01c368b1db4377c  
 running on Clt54BEF70B2EDF Fri Jun 27 23:37:07 2014

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp2006 = 45.9

Intel DH87MC Motherboard (Intel Celeron G1820)

SPECfp\_base2006 = 45.1

CPU2006 license: 13

Test date: Jun-2014

Test sponsor: Intel Corporation

Hardware Availability: Dec-2013

Tested by: Intel Corporation

Software Availability: Oct-2013

## Platform Notes (Continued)

<http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

Trying 'systeminfo'

OS Name : Microsoft Windows 8.1 Pro

OS Version : 6.3.9600 N/A Build 9600

System Manufacturer: INTEL\_

System Model : DH87MC\_\_

Processor(s) : 1 Processor(s) Installed.

[01]: Intel64 Family 6 Model 60 Stepping 3 GenuineIntel ~2694 Mhz

BIOS Version : Intel Corp. MCH8710H.86A.0047.2013.0606.1508, 6/6/2013

Total Physical Memory: 7,864 MB

Trying 'wmic cpu get /value'

DeviceID : CPU0

L2CacheSize : 512

L3CacheSize : 2048

MaxClockSpeed : 2694

Name : Intel(R) Celeron(R) CPU G1820 @ 2.70GHz

NumberOfCores : 2

NumberOfLogicalProcessors: 2

(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

OMP\_NUM\_THREADS set to number of processors cores

KMP\_AFFINITY set to granularity=fine,scatter

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

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc10 -Qstd=c99 ifort



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp2006 = 45.9

Intel DH87MC Motherboard (Intel Celeron G1820)

SPECfp\_base2006 = 45.1

CPU2006 license: 13

Test date: Jun-2014

Test sponsor: Intel Corporation

Hardware Availability: Dec-2013

Tested by: Intel Corporation

Software Availability: Oct-2013

## 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:

```

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch -Qauto-ilp32 /F1000000000

```

C++ benchmarks:

```

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch -Qcxx-features -Qauto-ilp32 /F1000000000 shlw64M.lib
-link /FORCE:MULTIPLE

```

Fortran benchmarks:

```

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

```

Benchmarks using both Fortran and C:

```

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch -Qauto-ilp32 /F1000000000

```

## Peak 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

SPECfp2006 = 45.9

Intel DH87MC Motherboard (Intel Celeron G1820)

SPECfp\_base2006 = 45.1

CPU2006 license: 13

Test date: Jun-2014

Test sponsor: Intel Corporation

Hardware Availability: Dec-2013

Tested by: Intel Corporation

Software Availability: Oct-2013

## Peak Compiler Invocation (Continued)

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: -QxSSE4.2(pass 2) -Qprof\_gen(pass 1) -Qprof\_use(pass 2)  
-Qipo -O3 -Qprec-div- -Oa -Qauto-ilp32 /F1000000000  
sh1w64M.lib -link /FORCE:MULTIPLE

447.dealIII: basepeak = yes

450.soplex: basepeak = yes

453.povray: -QxSSE4.2(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: -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: basepeak = yes

437.leslie3d: basepeak = yes

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp2006 = 45.9

Intel DH87MC Motherboard (Intel Celeron G1820)

SPECfp\_base2006 = 45.1

CPU2006 license: 13

Test date: Jun-2014

Test sponsor: Intel Corporation

Hardware Availability: Dec-2013

Tested by: Intel Corporation

Software Availability: Oct-2013

## Peak Optimization Flags (Continued)

459.GemsFDTD: basepeak = yes

465.tonto: -QxSSE4.2(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: 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 Wed Jul 30 10:54:16 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 29 July 2014.