



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Intel Corporation**

**SPECfp®\_rate2006 = 31.2**

**Lenovo T400 (Intel Core 2 Duo T9900)**

**SPECfp\_rate\_base2006 = 29.7**

CPU2006 license: 13

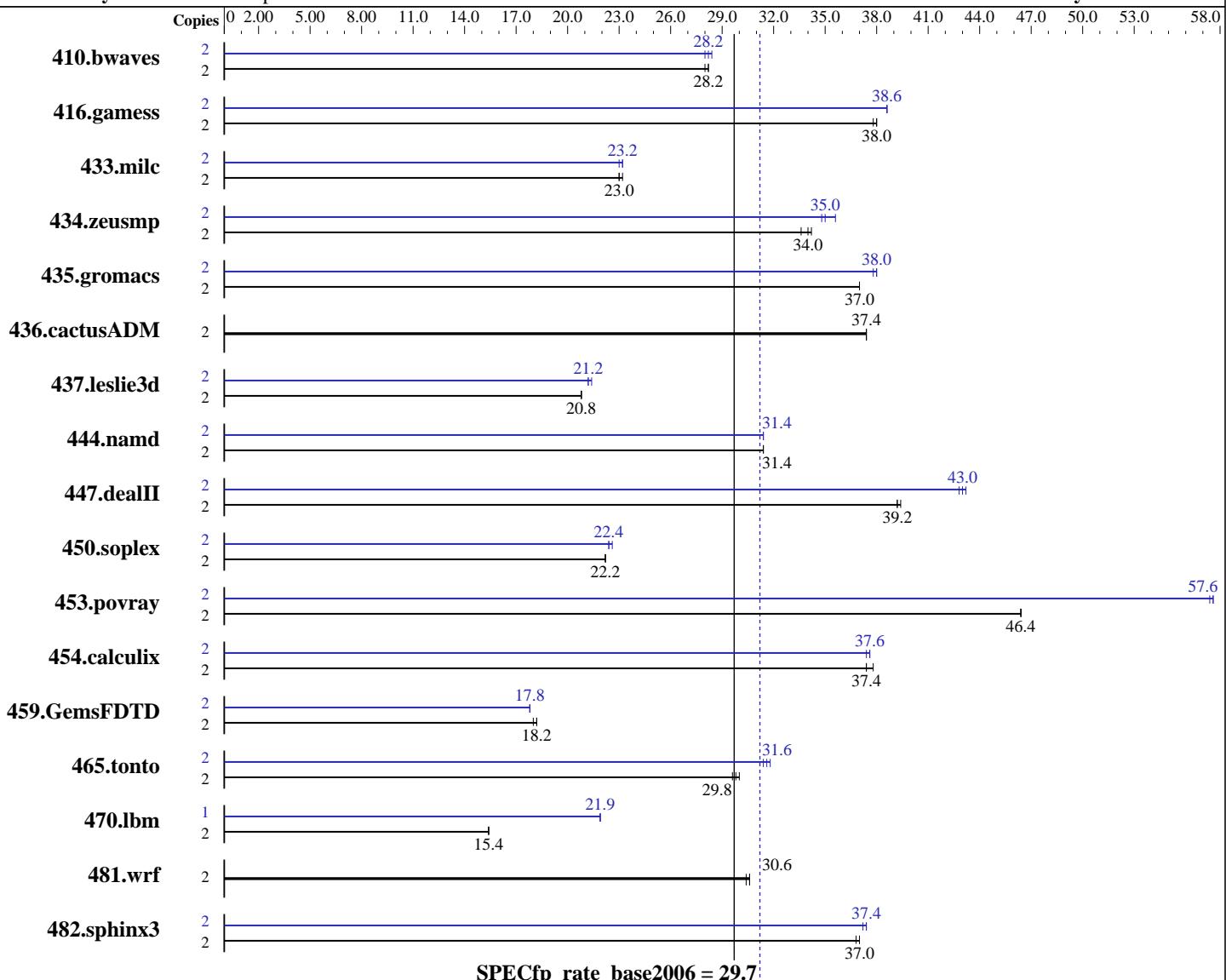
Test date: Mar-2009

Test sponsor: Intel Corporation

Hardware Availability: Mar-2009

Tested by: Intel Corporation

Software Availability: Nov-2008



**SPECfp\_rate\_base2006 = 29.7**

**SPECfp\_rate2006 = 31.2**

## Hardware

CPU Name: Intel Core 2 Duo T9900  
CPU Characteristics:  
CPU MHz:  
FPU:  
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: 6 MB I+D on chip per chip

## Software

Operating System: Windows XP Professional w/ SP2 (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

Continued on next page

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

**SPECfp\_rate2006 = 31.2**

Lenovo T400 (Intel Core 2 Duo T9900)

**SPECfp\_rate\_base2006 = 29.7**

CPU2006 license: 13

Test date: Mar-2009

Test sponsor: Intel Corporation

Hardware Availability: Mar-2009

Tested by: Intel Corporation

Software Availability: Nov-2008

L3 Cache: None  
 Other Cache: None  
 Memory: 2 GB (2x1GB Micron DDR3-1066 CL7)  
 Disk Subsystem: Hitachi HTS722020K9SA00 200GB SATA, 7200RPM  
 Other Hardware: None

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	2	968	28.0	963	28.2	<b>964</b>	<b>28.2</b>	2	969	28.0	960	28.4	<b>961</b>	<b>28.2</b>
416.gamess	2	1033	37.8	1033	38.0	<b>1033</b>	<b>38.0</b>	2	1017	38.6	1016	38.6	<b>1016</b>	<b>38.6</b>
433.milc	2	792	23.2	796	23.0	<b>795</b>	<b>23.0</b>	2	793	23.2	792	23.2	<b>798</b>	<b>23.0</b>
434.zeusmp	2	<b>535</b>	<b>34.0</b>	533	34.2	543	33.6	2	<b>520</b>	<b>35.0</b>	511	35.6	<b>523</b>	<b>34.8</b>
435.gromacs	2	386	37.0	386	37.0	<b>386</b>	<b>37.0</b>	2	<b>377</b>	<b>38.0</b>	377	37.8	<b>376</b>	<b>38.0</b>
436.cactusADM	2	638	37.4	639	37.4	<b>639</b>	<b>37.4</b>	2	638	37.4	639	37.4	<b>639</b>	<b>37.4</b>
437.leslie3d	2	902	20.8	<b>903</b>	<b>20.8</b>	903	20.8	2	887	21.2	877	21.4	<b>887</b>	<b>21.2</b>
444.namd	2	512	31.4	<b>512</b>	<b>31.4</b>	512	31.4	2	<b>512</b>	<b>31.4</b>	512	31.4	<b>512</b>	<b>31.4</b>
447.dealII	2	584	39.2	<b>583</b>	<b>39.2</b>	582	39.4	2	<b>534</b>	42.8	<b>533</b>	<b>43.0</b>	<b>529</b>	<b>43.2</b>
450.soplex	2	750	22.2	<b>750</b>	<b>22.2</b>	751	22.2	2	<b>744</b>	<b>22.4</b>	741	22.6	<b>746</b>	<b>22.4</b>
453.povray	2	229	46.4	<b>229</b>	<b>46.4</b>	230	46.4	2	185	57.6	<b>185</b>	<b>57.6</b>	<b>185</b>	<b>57.4</b>
454.calculix	2	437	37.8	442	37.4	<b>441</b>	<b>37.4</b>	2	438	37.6	<b>440</b>	<b>37.6</b>	<b>442</b>	<b>37.4</b>
459.GemsFDTD	2	1167	18.2	1179	18.0	<b>1170</b>	<b>18.2</b>	2	<b>1192</b>	<b>17.8</b>	1186	17.8	<b>1192</b>	<b>17.8</b>
465.tonto	2	665	29.6	<b>660</b>	<b>29.8</b>	655	30.0	2	<b>622</b>	<b>31.6</b>	627	31.4	<b>618</b>	<b>31.8</b>
470.lbm	2	1792	15.4	<b>1792</b>	<b>15.4</b>	1793	15.4	1	628	21.9	628	21.9	<b>628</b>	<b>21.9</b>
481.wrf	2	<b>731</b>	<b>30.6</b>	730	30.6	734	30.4	2	<b>731</b>	<b>30.6</b>	730	30.6	<b>734</b>	<b>30.4</b>
482.sphinx3	2	1051	37.0	<b>1056</b>	<b>37.0</b>	1060	36.8	2	<b>1046</b>	<b>37.2</b>	<b>1043</b>	<b>37.4</b>	1042	37.4

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

## General Notes

The system bus runs at 1066 MHz  
 Binaries were built on Windows Vista Ultimate (32-bit)

## Base Compiler Invocation

C benchmarks:  
 icl -Qvc9 -Qc99

C++ benchmarks:  
 icl -Qvc9

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

**SPECfp\_rate2006 = 31.2**

Lenovo T400 (Intel Core 2 Duo T9900)

**SPECfp\_rate\_base2006 = 29.7**

CPU2006 license: 13

Test date: Mar-2009

Test sponsor: Intel Corporation

Hardware Availability: Mar-2009

Tested by: Intel Corporation

Software Availability: Nov-2008

## Base Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc9 -Qc99 ifort

## Base Portability Flags

436.cactusADM: -Qlowercase /assume:underscore

444.namd: -TP

447.deallII: -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:

-QxSSE4.1 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F1000000000

C++ benchmarks:

-QxSSE4.1 -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qcxx-features  
/F1000000000 shlw32m.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

-QxSSE4.1 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F1000000000

Benchmarks using both Fortran and C:

-QxSSE4.1 -Qipo -O3 -Qprec-div- -Qopt-prefetch /F1000000000

## Peak Compiler Invocation

C benchmarks:

icl -Qvc9 -Qc99

C++ benchmarks:

icl -Qvc9

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc9 -Qc99 ifort



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Intel Corporation**

**SPECfp\_rate2006 = 31.2**

**Lenovo T400 (Intel Core 2 Duo T9900)**

**SPECfp\_rate\_base2006 = 29.7**

**CPU2006 license:** 13

**Test date:** Mar-2009

**Test sponsor:** Intel Corporation

**Hardware Availability:** Mar-2009

**Tested by:** Intel Corporation

**Software Availability:** Nov-2008

## Peak 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
```

## Peak Optimization Flags

C benchmarks:

```
433.milc: -QxSSE4.1(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
           -Qipo -O3 -Qprec-div- -Oa /F1000000000
470.lbm: -QxSSE4.1 -Qipo -O3 -Qprec-div- -Qopt-prefetch
           /F1000000000
482.sphinx3: -QxSSE4.1 -Qipo -O3 -Qprec-div- -Qunroll2 /F1000000000
```

C++ benchmarks:

```
444.namd: -QxSSE4.1(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
           -Qipo -O3 -Qprec-div- -Oa /F1000000000 shlw32m.lib
           -link /FORCE:MULTIPLE
447.dealII: -QxSSE4.1(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: -QxSSE4.1(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
           -Qipo -O3 -Qprec-div- /F1000000000 shlw32m.lib
           -link /FORCE:MULTIPLE
453.povray: -QxSSE4.1(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: -QxSSE4.1 -Qipo -O3 -Qprec-div- -Qopt-prefetch
           /F1000000000
416.gamess: -QxSSE4.1(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

Intel Corporation

**SPECfp\_rate2006 = 31.2**

Lenovo T400 (Intel Core 2 Duo T9900)

**SPECfp\_rate\_base2006 = 29.7**

**CPU2006 license:** 13

**Test date:** Mar-2009

**Test sponsor:** Intel Corporation

**Hardware Availability:** Mar-2009

**Tested by:** Intel Corporation

**Software Availability:** Nov-2008

## Peak Optimization Flags (Continued)

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

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

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

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

436.cactusADM: basepeak = yes

454.calculix: -QxSSE4.1 -Qipo -O3 -Qprec-div- /F1000000000

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-ic11.0-win32-revA.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-win32-revA.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 00:59:49 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 23 June 2009.