



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp[®]_rate2006 = 40.7

Intel DQ45CB motherboard (Intel Core 2 Quad Q8300)

SPECfp_rate_base2006 = 39.9

CPU2006 license: 13

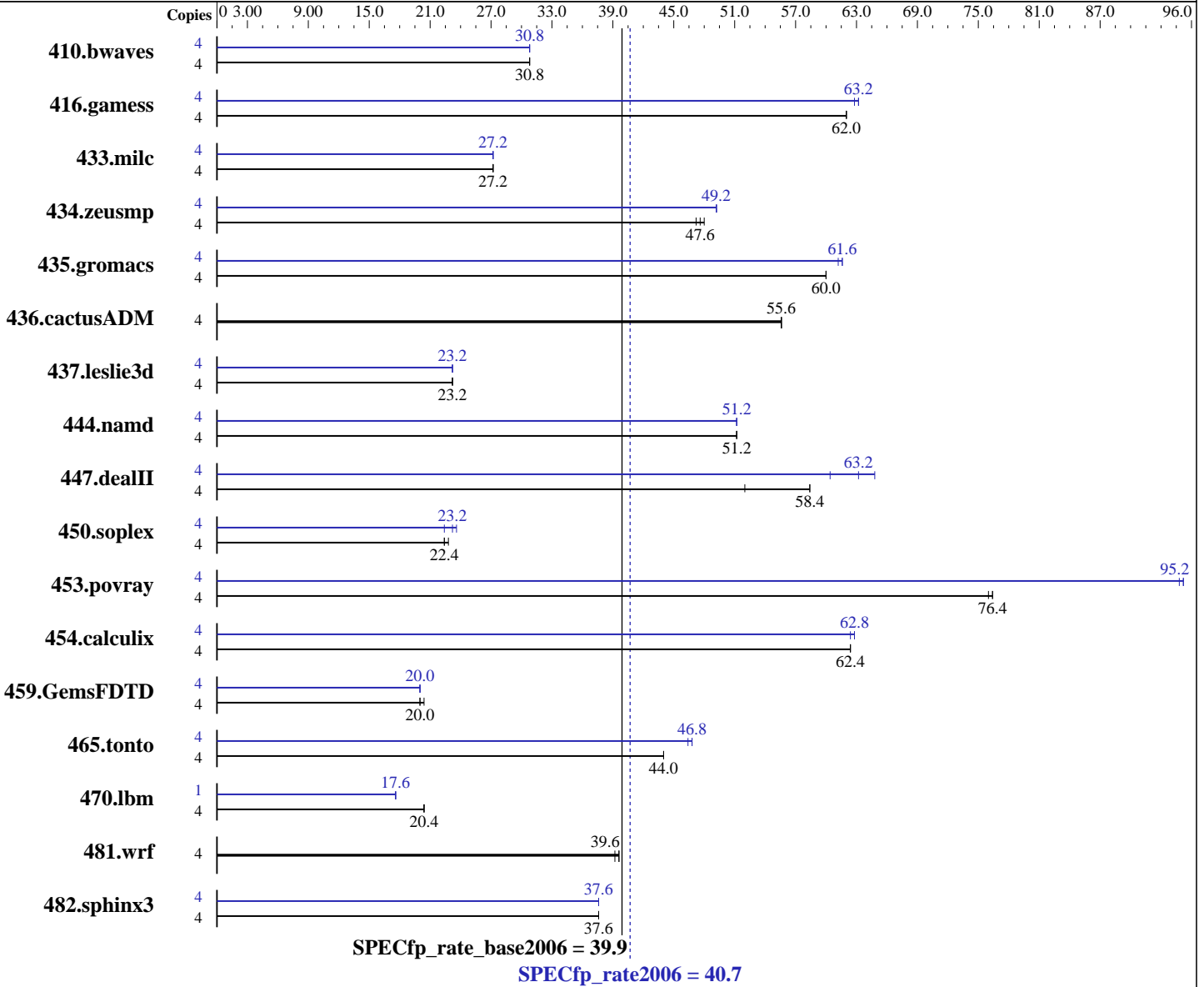
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Apr-2009

Hardware Availability: May-2009

Software Availability: Nov-2008



Hardware

CPU Name: Intel Core 2 Quad Q8300
 CPU Characteristics:
 CPU MHz: 2500
 FPU: Integrated
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip
 CPU(s) orderable: 1 chip
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 4 MB I+D on chip per chip, 2 MB shared / 2 cores

Continued on next page

Software

Operating System: Windows Vista Ultimate w/ SP1 (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



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp_rate2006 = 40.7

Intel DQ45CB motherboard (Intel Core 2 Quad Q8300)

SPECfp_rate_base2006 = 39.9

CPU2006 license: 13

Test date: Apr-2009

Test sponsor: Intel Corporation

Hardware Availability: May-2009

Tested by: Intel Corporation

Software Availability: Nov-2008

L3 Cache: None
 Other Cache: None
 Memory: 4 GB (4x1GB DDR2-800 CL5)
 Disk Subsystem: Seagate 320 GB 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 | 4 | 1763 | 30.8 | 1764 | 30.8 | 1764 | 30.8 | 4 | 1762 | 30.8 | 1763 | 30.8 | 1762 | 30.8 |
| 416.gamess | 4 | 1262 | 62.0 | 1262 | 62.0 | 1262 | 62.0 | 4 | 1242 | 63.2 | 1243 | 63.2 | 1245 | 62.8 |
| 433.milc | 4 | 1355 | 27.2 | 1356 | 27.2 | 1356 | 27.2 | 4 | 1351 | 27.2 | 1351 | 27.2 | 1353 | 27.2 |
| 434.zeusmp | 4 | 761 | 48.0 | 765 | 47.6 | 771 | 47.2 | 4 | 739 | 49.2 | 740 | 49.2 | 740 | 49.2 |
| 435.gromacs | 4 | 475 | 60.0 | 475 | 60.0 | 477 | 60.0 | 4 | 466 | 61.2 | 465 | 61.6 | 465 | 61.6 |
| 436.cactusADM | 4 | 861 | 55.6 | 861 | 55.6 | 862 | 55.6 | 4 | 861 | 55.6 | 861 | 55.6 | 862 | 55.6 |
| 437.leslie3d | 4 | 1632 | 23.2 | 1631 | 23.2 | 1632 | 23.2 | 4 | 1618 | 23.2 | 1619 | 23.2 | 1618 | 23.2 |
| 444.namd | 4 | 627 | 51.2 | 626 | 51.2 | 627 | 51.2 | 4 | 628 | 51.2 | 627 | 51.2 | 627 | 51.2 |
| 447.dealII | 4 | 877 | 52.0 | 784 | 58.4 | 782 | 58.4 | 4 | 759 | 60.4 | 725 | 63.2 | 706 | 64.8 |
| 450.soplex | 4 | 1468 | 22.8 | 1489 | 22.4 | 1481 | 22.4 | 4 | 1450 | 23.2 | 1418 | 23.6 | 1482 | 22.4 |
| 453.povray | 4 | 280 | 76.0 | 279 | 76.4 | 279 | 76.4 | 4 | 223 | 95.2 | 223 | 95.2 | 225 | 94.8 |
| 454.calculix | 4 | 528 | 62.4 | 530 | 62.4 | 530 | 62.4 | 4 | 527 | 62.8 | 527 | 62.8 | 527 | 62.4 |
| 459.GemsFDTD | 4 | 2103 | 20.0 | 2103 | 20.0 | 2100 | 20.4 | 4 | 2115 | 20.0 | 2118 | 20.0 | 2117 | 20.0 |
| 465.tonto | 4 | 894 | 44.0 | 893 | 44.0 | 896 | 44.0 | 4 | 845 | 46.4 | 840 | 46.8 | 840 | 46.8 |
| 470.lbm | 4 | 2675 | 20.4 | 2677 | 20.4 | 2676 | 20.4 | 1 | 780 | 17.6 | 780 | 17.6 | 780 | 17.6 |
| 481.wrf | 4 | 1131 | 39.6 | 1134 | 39.2 | 1134 | 39.6 | 4 | 1131 | 39.6 | 1134 | 39.2 | 1134 | 39.6 |
| 482.sphinx3 | 4 | 2079 | 37.6 | 2076 | 37.6 | 2078 | 37.6 | 4 | 2070 | 37.6 | 2068 | 37.6 | 2065 | 37.6 |

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.

General Notes

Tested systems can be used with Shin-G ATX case,
 Antec Truepower Trio power supply TP3-650
 Binaries were built on Windows Vista Ultimate (32-bit)

Base Compiler Invocation

C benchmarks:
 icl -Qvc9 -Qc99

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp_rate2006 = 40.7

Intel DQ45CB motherboard (Intel Core 2 Quad Q8300)

SPECfp_rate_base2006 = 39.9

CPU2006 license: 13

Test date: Apr-2009

Test sponsor: Intel Corporation

Hardware Availability: May-2009

Tested by: Intel Corporation

Software Availability: Nov-2008

Base Compiler Invocation (Continued)

C++ benchmarks:

icl -Qvc9

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.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

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

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp_rate2006 = 40.7

Intel DQ45CB motherboard (Intel Core 2 Quad Q8300)

SPECfp_rate_base2006 = 39.9

CPU2006 license: 13

Test date: Apr-2009

Test sponsor: Intel Corporation

Hardware Availability: May-2009

Tested by: Intel Corporation

Software Availability: Nov-2008

Peak Compiler Invocation (Continued)

Benchmarks using both Fortran and C:
icl -Qvc9 -Qc99 ifort

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:

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp_rate2006 = 40.7

Intel DQ45CB motherboard (Intel Core 2 Quad Q8300)

SPECfp_rate_base2006 = 39.9

CPU2006 license: 13

Test date: Apr-2009

Test sponsor: Intel Corporation

Hardware Availability: May-2009

Tested by: Intel Corporation

Software Availability: Nov-2008

Peak Optimization Flags (Continued)

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

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.20090710.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.20090710.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.

Tested with SPEC CPU2006 v1.1.

Report generated on Wed Jul 23 01:20:21 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 23 June 2009.