SPEC® CFP2006 Result

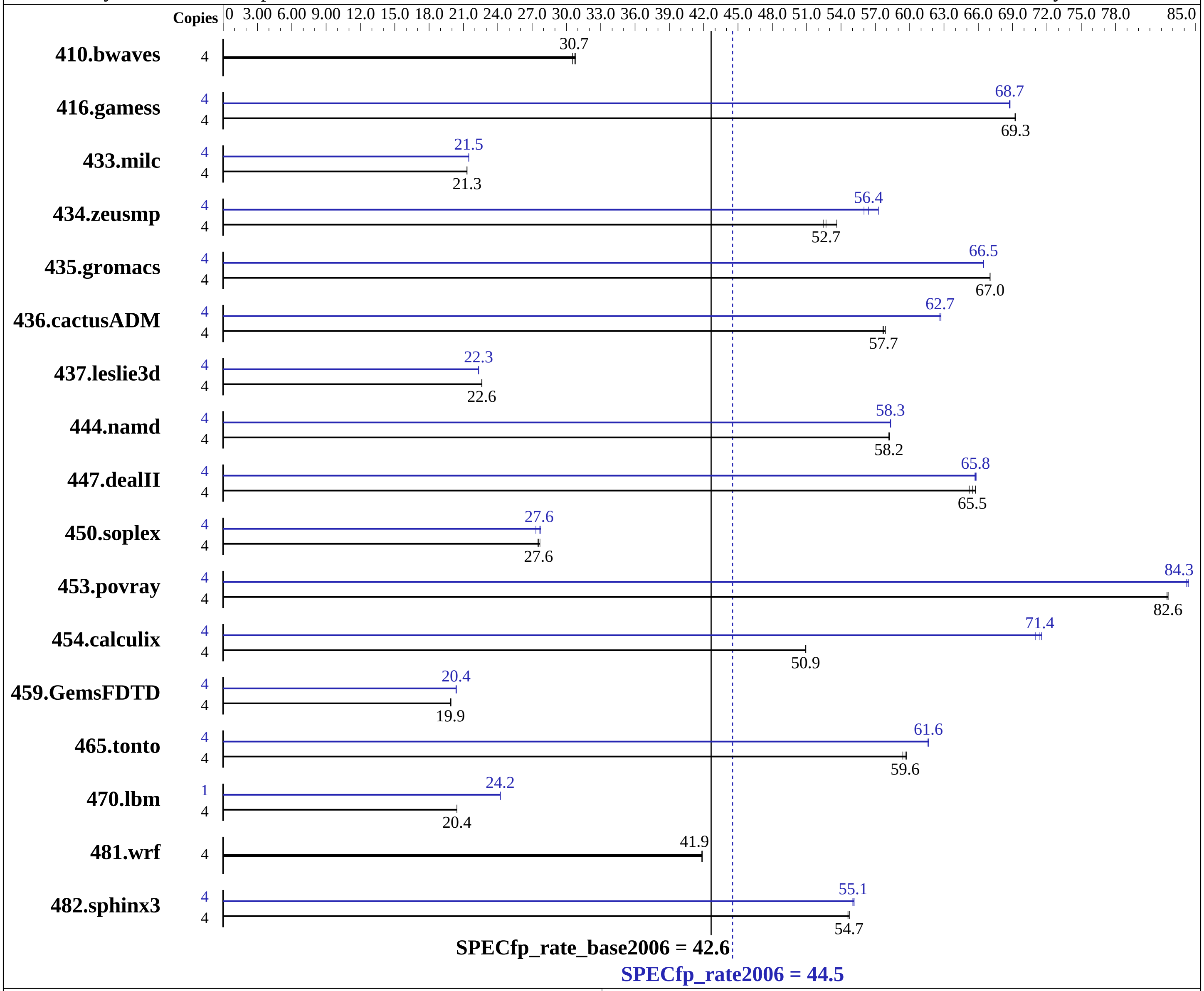
Intel Corporation

Intel Desktop Board DQ35JO (Intel Core 2 Duo Q9550)

SPECfp®_rate2006 = 44.5

SPECfp_rate_base2006 = 42.6

CPU2006 license:	13	**Test date:**	Feb-2008
Test sponsor:	Intel Corporation	**Hardware Availability:**	Mar-2008
Tested by:	Intel Corporation	**Software Availability:**	Nov-2007



Hardware

CPU Name:	Intel Core 2 Quad Q9550
CPU Characteristics:	2.83 GHz, 1333 FSB
CPU MHz:	2833
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:	12 MB I+D on chip per chip, 6 MB shared / 2 cores

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Software

Operating System:	Windows Vista Ultimate (64-bit)
Compiler:	Intel C++ Compiler for IA32 version 10.1 Build 20070913 Package ID: w_cc_p_10.1.011 Intel Fortran Compiler for IA32 version 10.1 Build 20070913 Package ID: w_fc_p_10.1.011 Microsoft Visual Studio 2005 SP1 (for libraries)
Auto Parallel:	No
File System:	NTFS
System State:	Default

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L3 Cache: None
Other Cache: None
Memory: 4 GB (4x1GB Micron DDR2-800 CL5)
Disk Subsystem: Seagate 320GB NCQ SATA, 16MB cache, 7200 RPM
Other Hardware: None

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	1780	30.5	**1772**	**30.7**	1765	30.8	4	1780	30.5	**1772**	**30.7**	1765	30.8
416.gamess	4	1132	69.2	1131	69.3	**1131**	**69.3**	4	1140	68.7	1139	68.8	**1139**	**68.7**
433.milc	4	1722	21.3	**1723**	**21.3**	1723	21.3	4	1711	21.5	**1710**	**21.5**	1710	21.5
434.zeusmp	4	**691**	**52.7**	693	52.5	679	53.6	4	**645**	**56.4**	636	57.3	650	56.0
435.gromacs	4	**426**	**67.0**	426	67.0	426	67.0	4	430	66.5	430	66.4	**430**	**66.5**
436.cactusADM	4	829	57.7	**828**	**57.7**	826	57.9	4	764	62.6	**763**	**62.7**	762	62.7
437.leslie3d	4	**1663**	**22.6**	1662	22.6	1663	22.6	4	**1684**	**22.3**	1683	22.3	1685	22.3
444.namd	4	551	58.2	**551**	**58.2**	551	58.2	4	550	58.3	550	58.4	**550**	**58.3**
447.dealII	4	702	65.2	696	65.8	**699**	**65.5**	4	**696**	**65.8**	695	65.8	696	65.7
450.soplex	4	1216	27.4	1205	27.7	**1210**	**27.6**	4	1202	27.8	1221	27.3	**1208**	**27.6**
453.povray	4	258	82.6	258	82.5	**258**	**82.6**	4	**252**	**84.3**	253	84.2	252	84.4
454.calculix	4	648	50.9	**648**	**50.9**	648	50.9	4	461	71.5	**462**	**71.4**	465	71.0
459.GemsFDTD	4	2139	19.8	2131	19.9	**2136**	**19.9**	4	**2084**	**20.4**	2086	20.3	2081	20.4
465.tonto	4	659	59.7	**660**	**59.6**	663	59.4	4	**639**	**61.6**	640	61.5	638	61.7
470.lbm	4	2689	20.4	**2689**	**20.4**	2689	20.4	1	567	24.2	**567**	**24.2**	567	24.2
481.wrf	4	1067	41.9	1068	41.8	**1067**	**41.9**	4	1067	41.9	1068	41.8	**1067**	**41.9**
482.sphinx3	4	1424	54.7	1428	54.6	**1425**	**54.7**	4	**1416**	**55.1**	1414	55.2	1418	55.0

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, Antec NeoPower 480W power supply
Product description located as of 03/2008:
http://www.intel.com/products/motherboard/DQ35JO/index.htm
The system bus runs at 1333 MHz
System was configured with Asus EN8800GTX discrete graphics card
Binaries were built on Windows Vista Ultimate (32-bit)
The following VS 2005 SP1 updates were applied: KB926601 and KB932232
The start command with the /affinity switch was used to bind processes to cores
```

Base Compiler Invocation

C benchmarks:
```
icl -Qvc8 -Qc99
```

C++ benchmarks:
```
icl -Qvc8
```

Fortran benchmarks:
```
ifort
```

Benchmarks using both Fortran and C:
```
icl -Qvc8 -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:
```
-fast /F1000000000
```

C++ benchmarks:
```
-fast -Qcxx_features /F1000000000 shlw32m.lib
           -link /FORCE:MULTIPLE
```

Fortran benchmarks:
```
-fast /F1000000000
```

Benchmarks using both Fortran and C:
```
-fast /F1000000000
```

Peak Compiler Invocation

C benchmarks:
```
icl -Qvc8 -Qc99
```

C++ benchmarks:
```
icl -Qvc8
```

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Peak Compiler Invocation (Continued)

Fortran benchmarks:
`ifort`

Benchmarks using both Fortran and C:
`icl -Qvc8 -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: `-fast -Qunroll2 -Oa /F1000000000`

470.lbm: `-fast -Qunroll2 -Qscalar-rep- -Qprefetch /F1000000000`

482.sphinx3: `-fast -Qunroll2 /F1000000000`

C++ benchmarks:

444.namd: `-fast -Oa -Qcxx_features /F1000000000 shlw32m.lib -link /FORCE:MULTIPLE`

447.dealII: `-fast -Qunroll2 -Qprefetch -Qcxx_features /F1000000000 shlw32m.lib -link /FORCE:MULTIPLE`

450.soplex: `-fast -Qcxx_features /F1000000000 shlw32m.lib -link /FORCE:MULTIPLE`

453.povray: `-fast -Qunroll4 -Qansi-alias -Qcxx_features /F1000000000 shlw32m.lib -link /FORCE:MULTIPLE`

Fortran benchmarks:

410.bwaves: `basepeak = yes`

416.gamess: `-fast -Qunroll2 -Ob0 -Qansi-alias -Qscalar-rep- /F1000000000`

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Peak Optimization Flags (Continued)

434.zeusmp: `-QxT -O2 -Qprec-div- -Qunroll0 -Qscalar-rep- /F1000000000`

437.leslie3d: `-fast -Qprefetch /F1000000000`

459.GemsFDTD: `-fast -Qunroll2 -Ob0 -Qprefetch /F1000000000`

465.tonto: `-fast -Qunroll4 -Qauto /F1000000000`

Benchmarks using both Fortran and C:

435.gromacs: `-fast -Oa -Qprefetch /F1000000000`

436.cactusADM: `-fast -Qunroll2 -Qprefetch /F1000000000`

454.calculix: `-fast -Qunroll-aggressive /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-ic10.1-win32-flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic10.1-win32-flags.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.0.
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