SPEC® CFP2006 Result

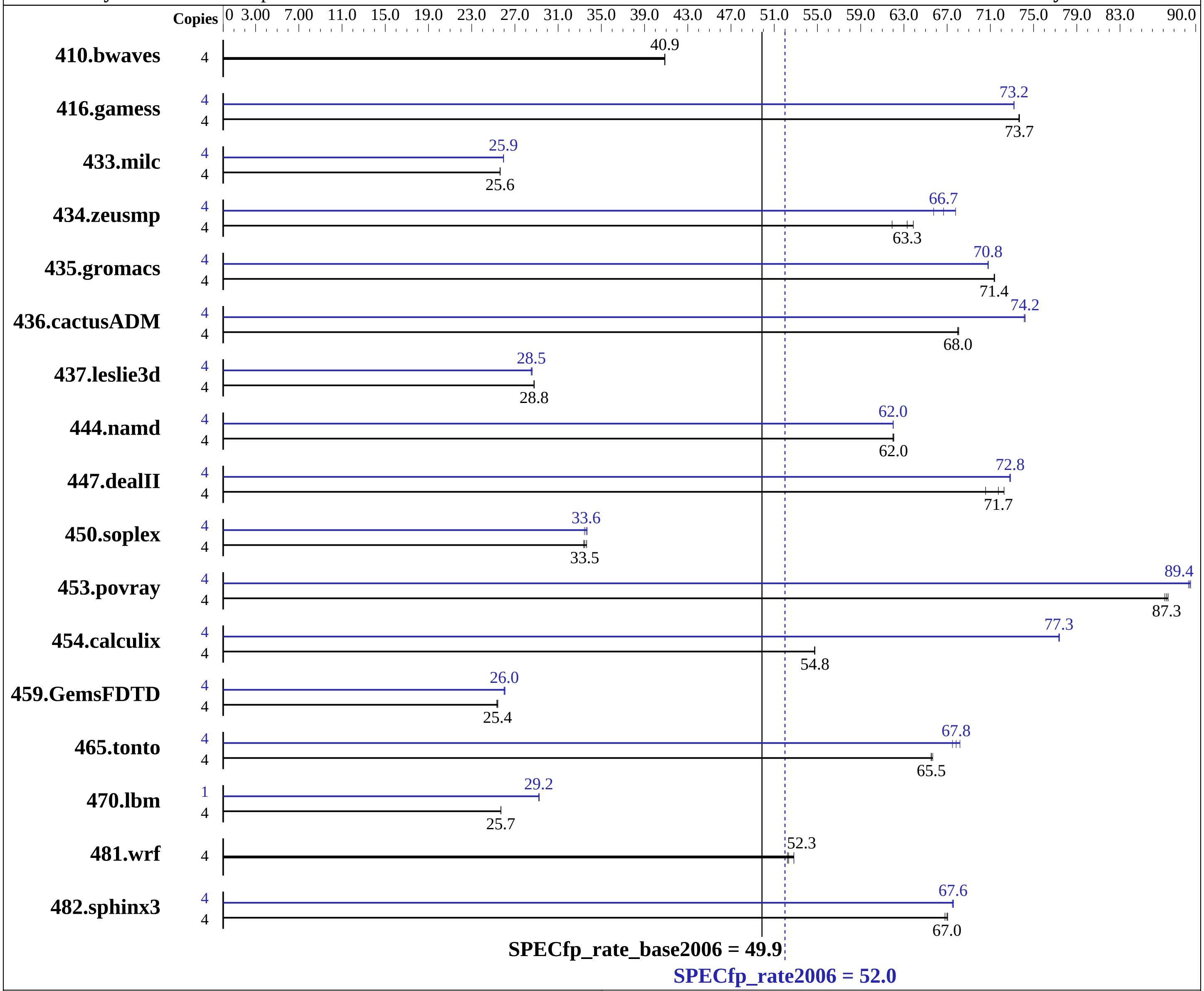
Intel Corporation

SPECfp®_rate2006 = 52.0

Asus P5E3 Deluxe (Intel Core 2 Extreme QX9650)

SPECfp_rate_base2006 = 49.9

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



Hardware

CPU Name:	Intel Core 2 Extreme QX9650
CPU Characteristics:	3.00 GHz 1333 MHz FSB
CPU MHz:	3000
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 Vista64 Ultimate
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 Corsair TWIN3X2048-1333C9DHX DDR3-1333 CL9)
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

	Base							Peak						
Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	1329	40.9	**1330**	**40.9**	1331	40.9	4	1329	40.9	**1330**	**40.9**	1331	40.9
416.gamess	4	1063	73.7	**1063**	**73.7**	1064	73.6	4	**1070**	**73.2**	1070	73.2	1070	73.2
433.milc	4	**1433**	**25.6**	1432	25.6	1434	25.6	4	**1416**	**25.9**	1416	25.9	1415	26.0
434.zeusmp	4	**575**	**63.3**	588	61.9	570	63.9	4	**546**	**66.7**	537	67.8	554	65.7
435.gromacs	4	400	71.3	400	71.4	**400**	**71.4**	4	**403**	**70.8**	404	70.8	403	70.8
436.cactusADM	4	**703**	**68.0**	702	68.1	703	68.0	4	644	74.2	645	74.1	**644**	**74.2**
437.leslie3d	4	1308	28.8	1306	28.8	**1306**	**28.8**	4	**1318**	**28.5**	1319	28.5	1314	28.6
444.namd	4	517	62.1	**517**	**62.0**	518	62.0	4	517	62.0	**517**	**62.0**	517	62.0
447.dealII	4	633	72.3	**638**	**71.7**	649	70.6	4	628	72.9	629	72.8	**628**	**72.8**
450.soplex	4	992	33.6	1000	33.4	**997**	**33.5**	4	**993**	**33.6**	990	33.7	998	33.4
453.povray	4	243	87.4	244	87.1	**244**	**87.3**	4	238	89.3	**238**	**89.4**	238	89.5
454.calculix	4	603	54.7	603	54.8	**603**	**54.8**	4	427	77.3	426	77.4	**427**	**77.3**
459.GemsFDTD	4	1677	25.3	**1671**	**25.4**	1669	25.4	4	**1631**	**26.0**	1633	26.0	1627	26.1
465.tonto	4	**601**	**65.5**	601	65.5	599	65.7	4	577	68.2	583	67.5	**580**	**67.8**
470.lbm	4	2138	25.7	2139	25.7	**2139**	**25.7**	1	**470**	**29.2**	471	29.2	470	29.3
481.wrf	4	**854**	**52.3**	846	52.8	856	52.2	4	**854**	**52.3**	846	52.8	856	52.2
482.sphinx3	4	**1164**	**67.0**	1163	67.1	1167	66.8	4	1155	67.5	1153	67.6	**1154**	**67.6**

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 11/2007:
http://www.asus.com/products.aspx?l1=3&l2=11&l3=572&l4=0&model=1872&modelmenu=1
The system bus runs at 1333 MHz
System was configured with Asus EN8800GTX discrete graphics card
Binaries were built on Windows Vista32
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
```

Continued on next page

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-ia32-intel64-linux-flags.20090714.09.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.09.xml