



SPEC® CFP2006 Result

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Dell Inc.

SPECfp®_rate2006 = 32.2

Dell Precision T3400 (Intel E8500, 3.16 GHz)

SPECfp_rate_base2006 = 30.5

CPU2006 license: 55

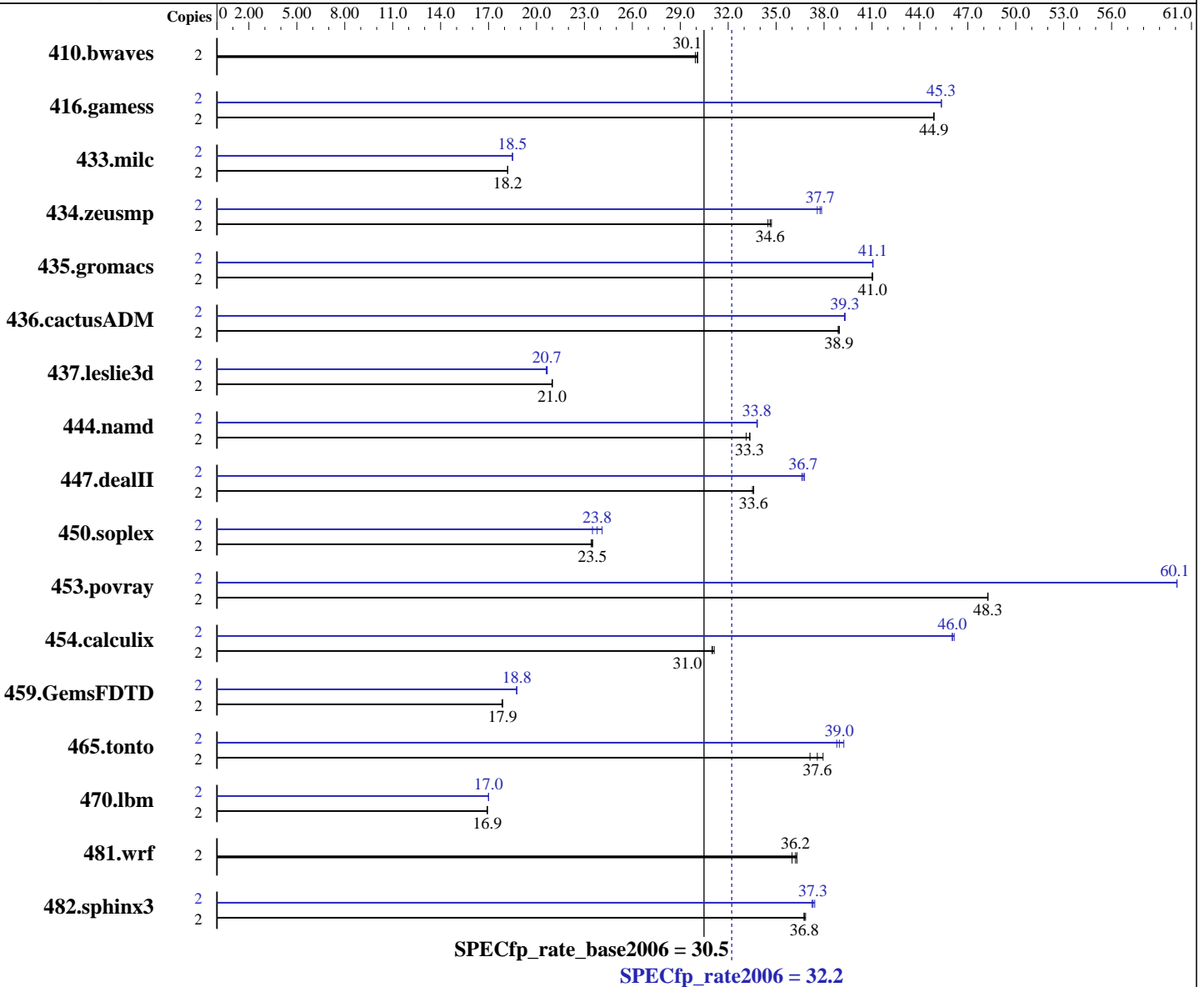
Test date: Dec-2007

Test sponsor: Dell Inc.

Hardware Availability: Jan-2008

Tested by: Dell Inc.

Software Availability: Nov-2007



Hardware

CPU Name: Intel Core 2 Duo E8500
 CPU Characteristics: 1333 MHz Bus Speed
 CPU MHz: 3166
 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: 6 MB I+D on chip per chip

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Software

Operating System: Windows XP Professional x64 Edition SP2
 Compiler: Intel C++ Compiler for Intel 64, Version 10.1
 Build 20070809 Package ID: w_cc_p_10.1.011
 Intel Visual Fortran Compiler for Intel 64,
 Version 10.0
 Build 20070809 Package ID: w_fc_p_10.1.011
 Microsoft Visual Studio 2005 SP1

Auto Parallel: No
 File System: NTFS

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L3 Cache: None
Other Cache: None
Memory: 4 GB (4x1 GB 800 MHz ECC CL6 DDR2)
Disk Subsystem: 1 x 80 GB SATA 7200 RPM
Other Hardware: None

System State: Default
Base Pointers: 32/64-bit
Peak Pointers: 32/64-bit
Other Software: MicroQuill SmartHeap Library 8.1 for x64

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	2	<u>904</u>	<u>30.1</u>	908	29.9	903	30.1	2	<u>904</u>	<u>30.1</u>	908	29.9	903	30.1
416.gamess	2	873	44.9	<u>873</u>	<u>44.9</u>	873	44.9	2	<u>864</u>	<u>45.3</u>	864	45.3	864	45.3
433.milc	2	1009	18.2	<u>1009</u>	<u>18.2</u>	1009	18.2	2	<u>992</u>	<u>18.5</u>	993	18.5	992	18.5
434.zeusmp	2	<u>526</u>	<u>34.6</u>	524	34.7	528	34.5	2	<u>482</u>	<u>37.7</u>	481	37.8	484	37.6
435.gromacs	2	348	41.0	348	41.0	<u>348</u>	<u>41.0</u>	2	348	41.0	<u>348</u>	<u>41.1</u>	348	41.1
436.cactusADM	2	615	38.9	<u>614</u>	<u>38.9</u>	613	39.0	2	609	39.3	<u>608</u>	<u>39.3</u>	608	39.3
437.leslie3d	2	<u>896</u>	<u>21.0</u>	896	21.0	895	21.0	2	912	20.6	<u>910</u>	<u>20.7</u>	909	20.7
444.namd	2	484	33.1	<u>481</u>	<u>33.3</u>	481	33.4	2	475	33.8	<u>475</u>	<u>33.8</u>	474	33.8
447.dealII	2	683	33.5	<u>681</u>	<u>33.6</u>	681	33.6	2	<u>624</u>	<u>36.7</u>	625	36.6	622	36.8
450.soplex	2	712	23.4	<u>710</u>	<u>23.5</u>	709	23.5	2	710	23.5	692	24.1	<u>701</u>	<u>23.8</u>
453.povray	2	<u>220</u>	<u>48.3</u>	220	48.3	221	48.2	2	177	60.1	177	60.1	<u>177</u>	<u>60.1</u>
454.calculix	2	532	31.0	<u>532</u>	<u>31.0</u>	530	31.1	2	<u>358</u>	<u>46.0</u>	358	46.1	359	46.0
459.GemsFDTD	2	1189	17.8	<u>1187</u>	<u>17.9</u>	1186	17.9	2	1131	18.8	<u>1131</u>	<u>18.8</u>	1131	18.8
465.tonto	2	<u>524</u>	<u>37.6</u>	530	37.1	519	37.9	2	507	38.8	502	39.2	<u>505</u>	<u>39.0</u>
470.lbm	2	<u>1624</u>	<u>16.9</u>	1624	16.9	1624	16.9	2	1617	17.0	1616	17.0	<u>1616</u>	<u>17.0</u>
481.wrf	2	621	36.0	<u>617</u>	<u>36.2</u>	615	36.3	2	621	36.0	<u>617</u>	<u>36.2</u>	615	36.3
482.sphinx3	2	<u>1060</u>	<u>36.8</u>	1061	36.7	1058	36.8	2	<u>1045</u>	<u>37.3</u>	1046	37.3	1042	37.4

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

General Notes

Binaries were built on Windows Vista Ultimate (64-bit)

Base Compiler Invocation

C benchmarks:
icl -Qstd=c99

C++ benchmarks:
icl

Fortran benchmarks:
ifort

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Base Compiler Invocation (Continued)

Benchmarks using both Fortran and C:
icl -Qstd=c99 ifort

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 -Qlowercase /assume:underscore
437.leslie3d: -DSPEC_CPU_P64
444.namd: -DSPEC_CPU_P64 /TP
447.dealII: -DSPEC_CPU_P64 -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
450.soplex: -DSPEC_CPU_P64
453.povray: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_P64 -DSPEC_CPU_NOZMODIFIER -Qlowercase
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:
-fast -Qauto-ilp32 /F1000000000 shlw64m.lib
-link /FORCE:MULTIPLE

C++ benchmarks:
-fast -Qauto-ilp32 -Qcxx_features /F1000000000 shlw64m.lib
-link /FORCE:MULTIPLE

Fortran benchmarks:
-fast -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:
-fast -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

```

Peak Compiler Invocation

C benchmarks:
icl -Qstd=c99

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Peak Compiler Invocation (Continued)

C++ benchmarks:
icl

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qstd=c99 ifort

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

433.milc: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Qunroll2 -Oa /F1000000000 shlw64m.lib
-link /FORCE:MULTIPLE

470.lbm: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Qunroll2 -Qscalar-rep- -Qprefetch /F1000000000
shlw64m.lib -link /FORCE:MULTIPLE

482.sphinx3: -fast -Qauto-ilp32 -Qunroll2 /F1000000000 shlw64m.lib
-link /FORCE:MULTIPLE

C++ benchmarks:

444.namd: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Oa -Qcxx_features /F1000000000 shlw64m.lib
-link /FORCE:MULTIPLE

447.dealII: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Qunroll2 -Qprefetch -Qcxx_features /F1000000000
shlw64m.lib -link /FORCE:MULTIPLE

450.soplex: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Qcxx_features /F1000000000 shlw64m.lib
-link /FORCE:MULTIPLE

453.povray: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Qunroll4 -Qansi-alias -Qcxx_features /F1000000000
shlw64m.lib -link /FORCE:MULTIPLE

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Peak Optimization Flags (Continued)

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Qunroll2 -Ob0 -Qansi-alias -Qscalar-rep- /F1000000000
-link /FORCE:MULTIPLE

434.zeusmp: -Qprof_gen(pass 1) -Qprof_use(pass 2) -QxT -O2 -Qprec-div-
-Qunroll10 -Qscalar-rep- /F1000000000
-link /FORCE:MULTIPLE

437.leslie3d: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Qprefetch /F1000000000 -link /FORCE:MULTIPLE

459.GemsFDTD: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Qunroll2 -Ob0 -Qprefetch /F1000000000
-link /FORCE:MULTIPLE

465.tonto: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Qunroll4 -Qauto /F1000000000
-link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:

435.gromacs: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Oa -Qprefetch /F1000000000
-link /FORCE:MULTIPLE

436.cactusADM: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto-ilp32
-Qunroll2 -Qprefetch /F1000000000
-link /FORCE:MULTIPLE

454.calculix: -fast -Qauto-ilp32 -Qunroll-aggressive /F1000000000
-link /FORCE:MULTIPLE

481.wrf: basepeak = yes

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/dell.ic10.1.windows.flags.20090714.01.html>

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

<http://www.spec.org/cpu2006/flags/dell.ic10.1.windows.flags.20090714.01.xml>



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