SPEC® CFP2006 Result
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Dell Inc.

$SPECfp^®\_rate2006 =$ 27.1

Dell Precision M6300 (Intel X9000, 2.80 GHz)

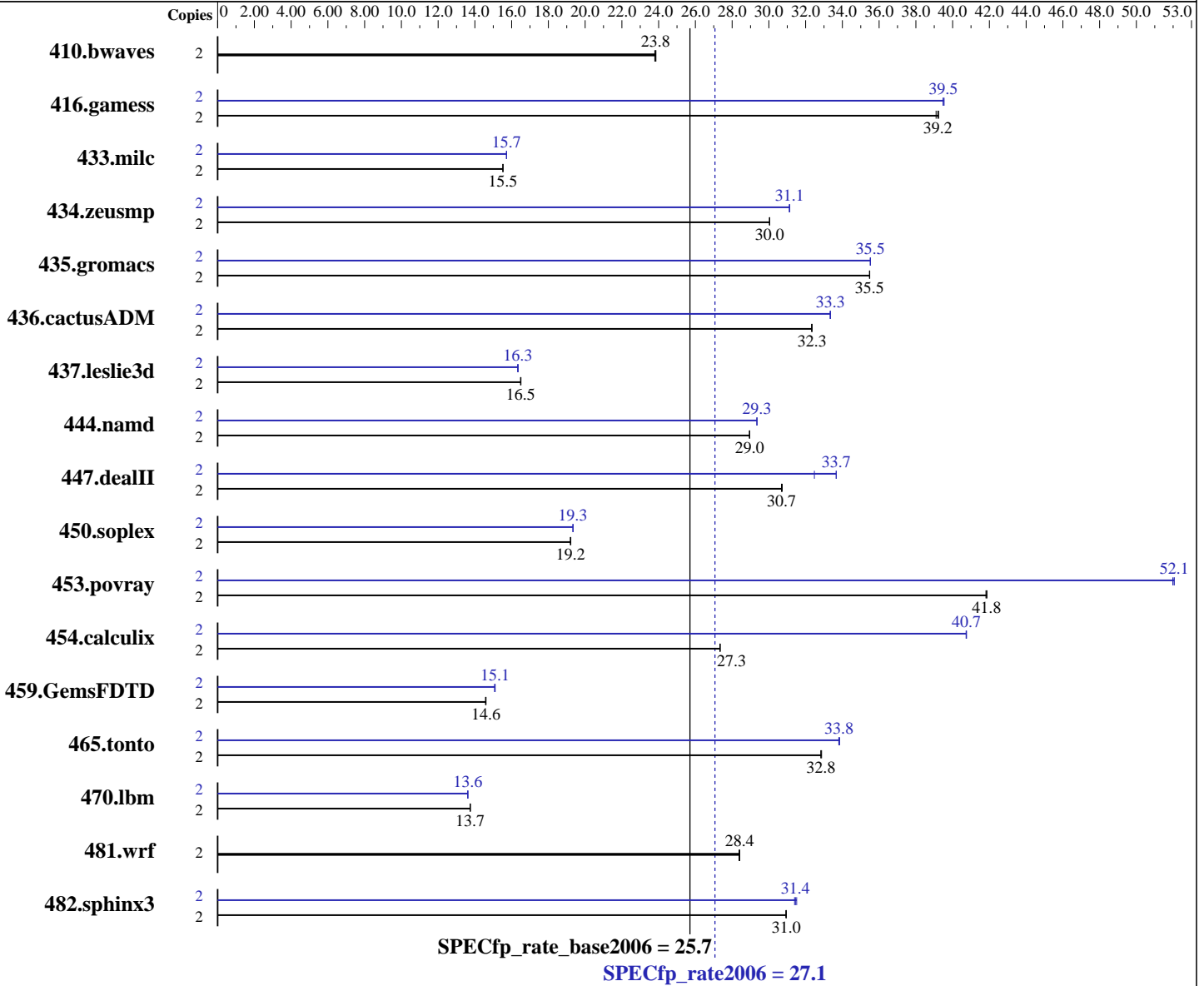$SPECfp\_rate\_base2006 =$ 25.7

CPU2006 license: 55
Test sponsor: Dell Inc.
Tested by: Dell Inc.

Test date: Dec-2007
Hardware Availability: Jan-2008
Software Availability: Nov-2007

Benchmark	Copies	Base	Peak
410.bwaves	2	23.8	
416.gamess	2	39.2	39.5
433.milc	2	15.5	15.7
434.zeusmp	2	30.0	31.1
435.gromacs	2	35.5	35.5
436.cactusADM	2	32.3	33.3
437.leslie3d	2	16.5	16.3
444.namd	2	29.0	29.3
447.dealII	2	30.7	33.7
450.soplex	2	19.2	19.3
453.povray	2	41.8	52.1
454.calculix	2	27.3	40.7
459.GemsFDTD	2	14.6	15.1
465.tonto	2	32.8	33.8
470.lbm	2	13.7	13.6
481.wrf	2	28.4	
482.sphinx3	2	31.0	31.4

SPECfp_rate_base2006 = 25.7
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Hardware

CPU Name: Intel Core 2 Extreme X9000
CPU Characteristics: 800 MHz Bus Speed
CPU MHz: 2800
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

Continued on next page

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	System State:	Default
Other Cache:	None	Base Pointers:	32/64-bit
Memory:	4 GB (2x2 GB 667 MHz CL5 DDR2)	Peak Pointers:	32/64-bit
Disk Subsystem:	1 x 120GB SATA 7200 RPM	Other Software:	MicroQuill SmartHeap Library 8.1 for x64
Other Hardware:	None		

Results Table

	Base							Peak						
Benchmark	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
410.bwaves	2	1142	23.8	**1140**	**23.8**	1139	23.9	2	1142	23.8	**1140**	**23.8**	1139	23.9
416.gamess	2	1002	39.1	**999**	**39.2**	998	39.2	2	990	39.5	992	39.5	**992**	**39.5**
433.milc	2	1183	15.5	**1182**	**15.5**	1182	15.5	2	**1168**	**15.7**	1168	15.7	1168	15.7
434.zeusmp	2	606	30.0	**606**	**30.0**	606	30.0	2	**585**	**31.1**	585	31.1	585	31.1
435.gromacs	2	403	35.5	**402**	**35.5**	402	35.5	2	402	35.5	402	35.5	**402**	**35.5**
436.cactusADM	2	739	32.3	**739**	**32.3**	739	32.3	2	717	33.4	**717**	**33.3**	717	33.3
437.leslie3d	2	1140	16.5	1139	16.5	**1140**	**16.5**	2	1151	16.3	1149	16.4	**1151**	**16.3**
444.namd	2	554	28.9	**554**	**29.0**	554	29.0	2	**547**	**29.3**	547	29.3	546	29.4
447.dealII	2	746	30.7	745	30.7	**746**	**30.7**	2	705	32.5	680	33.7	**680**	**33.7**
450.soplex	2	869	19.2	**869**	**19.2**	868	19.2	2	862	19.3	863	19.3	**863**	**19.3**
453.povray	2	**254**	**41.8**	254	41.8	254	41.9	2	204	52.1	**204**	**52.1**	205	52.0
454.calculix	2	604	27.3	603	27.3	**603**	**27.3**	2	405	40.7	405	40.8	**405**	**40.7**
459.GemsFDTD	2	1456	14.6	1453	14.6	**1453**	**14.6**	2	1408	15.1	**1405**	**15.1**	1405	15.1
465.tonto	2	599	32.9	**599**	**32.8**	599	32.8	2	581	33.9	582	33.8	**582**	**33.8**
470.lbm	2	**1999**	**13.7**	1999	13.7	1999	13.7	2	**2018**	**13.6**	2018	13.6	2018	13.6
481.wrf	2	787	28.4	**786**	**28.4**	786	28.4	2	787	28.4	**786**	**28.4**	786	28.4
482.sphinx3	2	1259	31.0	**1259**	**31.0**	1261	30.9	2	1242	31.4	1237	31.5	**1240**	**31.4**

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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Test date: Dec-2007
Hardware Availability: Jan-2008
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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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CPU2006 license: 55		**Test date:**	Dec-2007
Test sponsor:	Dell Inc.	**Hardware Availability:**	Jan-2008
Tested by:	Dell Inc.	**Software Availability:**	Nov-2007

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-
            -Qunroll0 -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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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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