



SPEC[®] CFP2006 Result

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Dell Inc.

SPECfp[®]_rate2006 = Not Run

PowerEdge R410 (Intel Xeon E5502, 1.86 GHz)

SPECfp_rate_base2006 = 43.6

CPU2006 license: 55

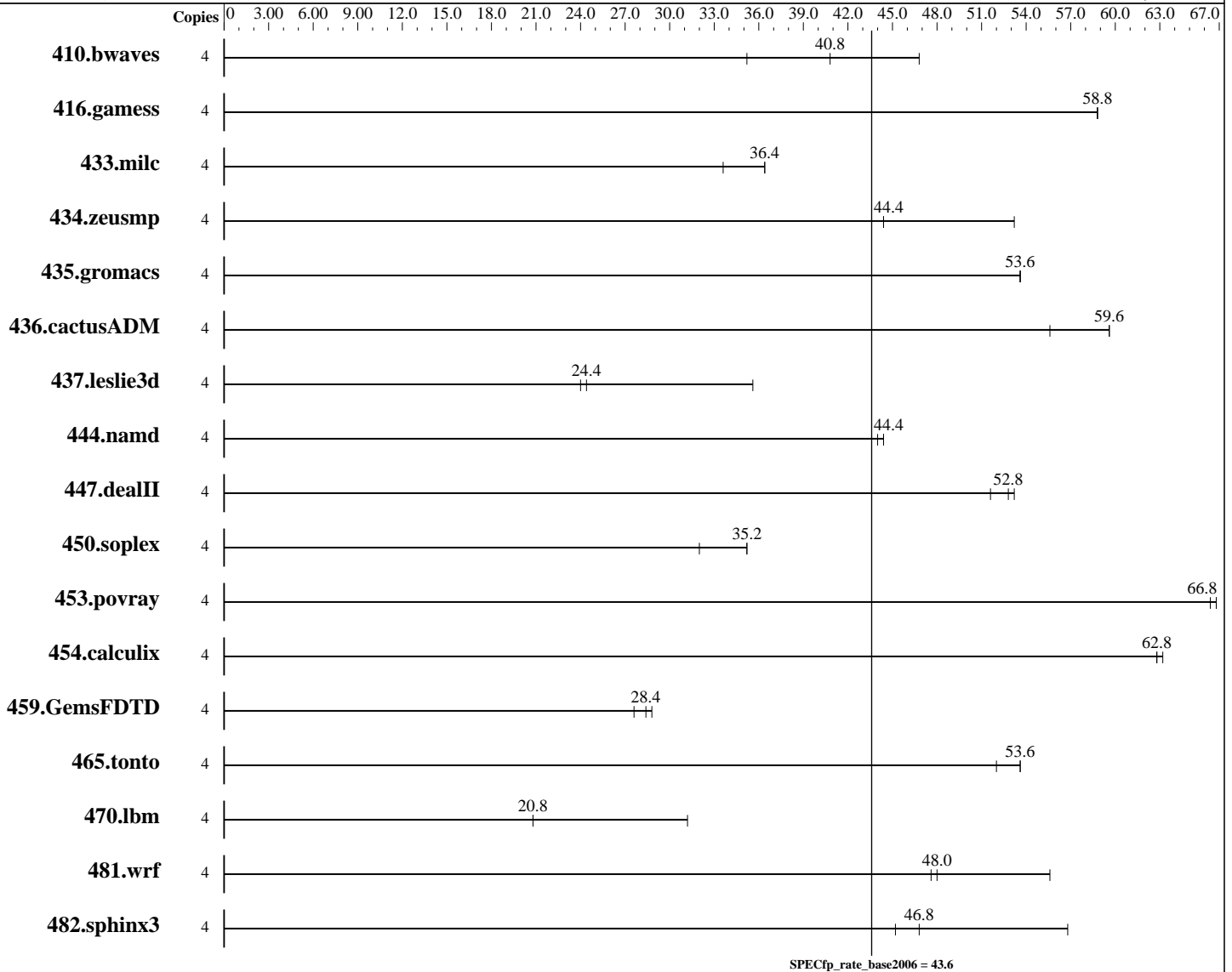
Test sponsor: Dell Inc.

Tested by: Dell Inc.

Test date: Sep-2009

Hardware Availability: Jun-2009

Software Availability: May-2009



Hardware

CPU Name: Intel Xeon E5502
 CPU Characteristics:
 CPU MHz: 1867
 FPU: Integrated
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip
 CPU(s) orderable: 1,2 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core

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Software

Operating System: Microsoft Windows Server 2008 Enterprise x64 Edition SP2
 Compiler: Intel C++ Compiler for Intel 64, Version 11.0 Build 20090131 Package ID: w_cproc_p_11.0.072
 Intel Visual Fortran Compiler for Intel 64, Version 11.0 Build 20090131 Package ID: w_cprof_p_11.0.072
 Microsoft Visual Studio 2008 SP1
 Auto Parallel: No
 File System: NTFS

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L3 Cache: 4 MB I+D on chip per chip
 Other Cache: None
 Memory: 4 GB (2 x 2 GB DDR3-1066 DR RDIMM downclocked to 800 MHz)
 Disk Subsystem: 1 x 73 GB 15000 RPM SAS
 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	4	1544	35.2	<u>1328</u>	<u>40.8</u>	1159	46.8									
416.gamess	4	1333	58.8	<u>1333</u>	<u>58.8</u>	1333	58.8									
433.milc	4	<u>1009</u>	<u>36.4</u>	1007	36.4	1092	33.6									
434.zeusmp	4	683	53.2	<u>819</u>	<u>44.4</u>	820	44.4									
435.gromacs	4	532	53.6	<u>532</u>	<u>53.6</u>	533	53.6									
436.cactusADM	4	862	55.6	801	59.6	<u>803</u>	<u>59.6</u>									
437.leslie3d	4	1062	35.6	1559	24.0	<u>1541</u>	<u>24.4</u>									
444.namd	4	726	44.0	<u>725</u>	<u>44.4</u>	725	44.4									
447.dealII	4	862	53.2	886	51.6	<u>867</u>	<u>52.8</u>									
450.soplex	4	1037	32.0	<u>953</u>	<u>35.2</u>	950	35.2									
453.povray	4	320	66.4	<u>318</u>	<u>66.8</u>	318	66.8									
454.calculix	4	<u>524</u>	<u>62.8</u>	524	63.2	525	62.8									
459.GemsFDTD	4	1532	27.6	1471	28.8	<u>1501</u>	<u>28.4</u>									
465.tonto	4	758	52.0	<u>736</u>	<u>53.6</u>	735	53.6									
470.lbm	4	1772	31.2	<u>2641</u>	<u>20.8</u>	2644	20.8									
481.wrf	4	806	55.6	941	47.6	<u>929</u>	<u>48.0</u>									
482.sphinx3	4	1723	45.2	<u>1661</u>	<u>46.8</u>	1370	56.8									

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 Business (64-bit)

Base Compiler Invocation

C benchmarks:
icl -Qvc9 -Qstd=c99

C++ benchmarks:
icl -Qvc9

Fortran benchmarks:
ifort

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Base Compiler Invocation (Continued)

Benchmarks using both Fortran and C:

```
icl -Qvc9 -Qstd=c99 ifort
```

Base Portability Flags

```

410.bwaves: -DSPEC_CPU_P64 /assume:underscore
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:

```
-QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div- -Qopt-prefetch
/F512000000
```

C++ benchmarks:

```
-QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div- -Qopt-prefetch
-Qcxx_features /F512000000 shlw64mt.lib
-link /FORCE:MULTIPLE
```

Fortran benchmarks:

```
-QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div- -Qopt-prefetch
/F1000000000
```

Benchmarks using both Fortran and C:

```
-QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div- -Qopt-prefetch
/F1000000000
```

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

<http://www.spec.org/cpu2006/flags/dell.flags.ic11.0.win.html>



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

<http://www.spec.org/cpu2006/flags/dell.flags.ic11.0.win.xml>

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For other inquiries, please contact webmaster@spec.org.

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