



# SPEC® CFP2006 Result

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Dell Inc.

**SPECfp®\_rate2006 = Not Run**

PowerEdge R410 (Intel Xeon E5502, 1.86 GHz)

**SPECfp\_rate\_base2006 = 49.8**

CPU2006 license: 55

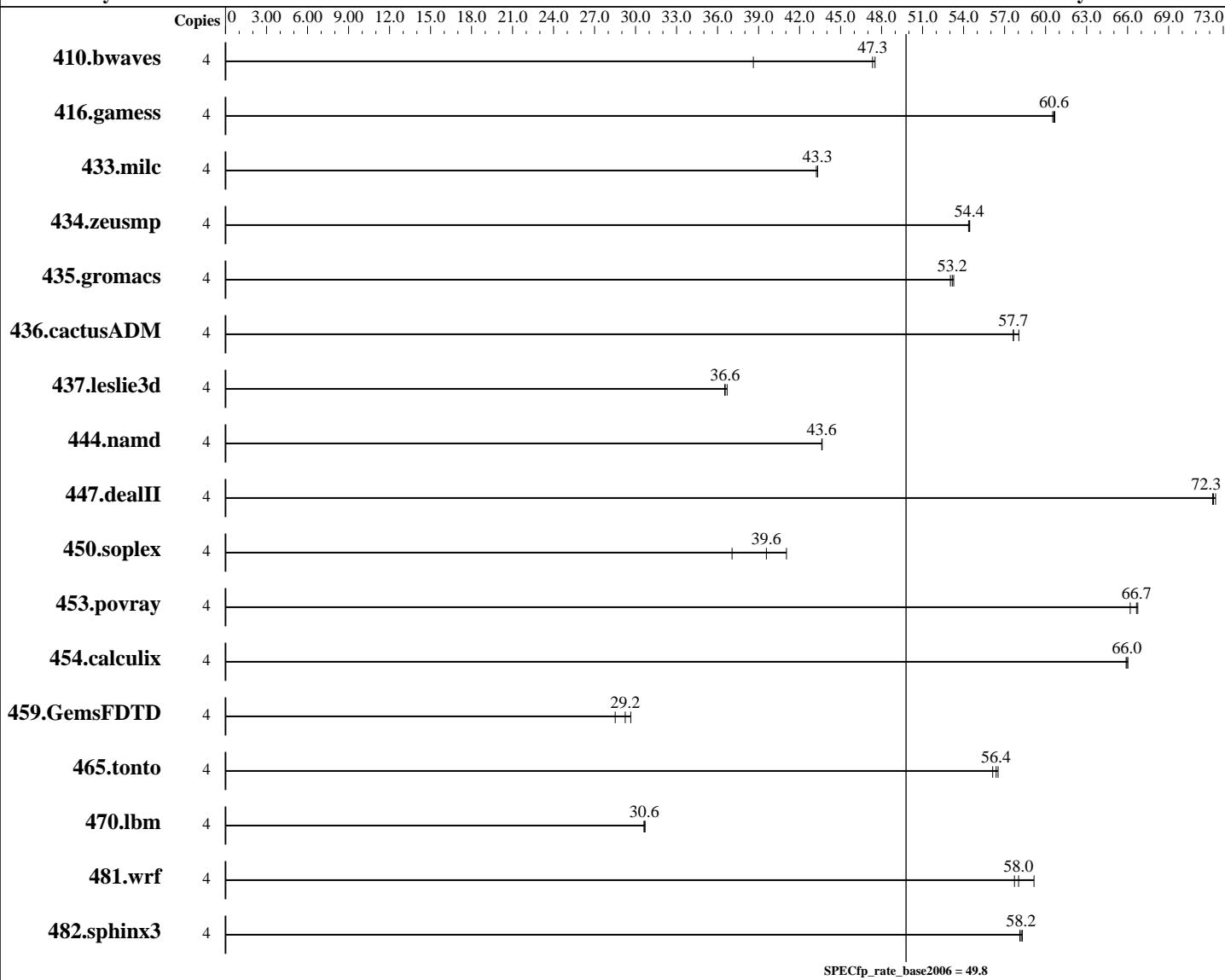
Test date: Sep-2009

Test sponsor: Dell Inc.

Hardware Availability: Jun-2009

Tested by: Dell Inc.

Software Availability: Feb-2009



## Hardware

CPU Name: Intel Xeon E5502  
 CPU Characteristics:  
 CPU MHz:  
 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: SUSE Linux Enterprise Server 10 (x86\_64) SP2, Kernel 2.6.16.60-0.21-smp  
 Compiler: Intel C++ and Fortran Compiler Professional 11.0 for Linux Build 20090131 Package ID: l\_cproc\_p\_11.0.080, l\_cprof\_p\_11.0.080  
 Auto Parallel: No  
 File System: ReiserFS  
 System State: Run level 3 (multi-user)

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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

Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	Binutils 2.18.50.0.7.20080502

## Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	1408	38.6	1144	47.5	<b>1148</b>	<b>47.3</b>									
416.gamess	4	1291	60.7	<b>1292</b>	<b>60.6</b>	1294	60.5									
433.milc	4	849	43.2	848	43.3	<b>848</b>	<b>43.3</b>									
434.zeusmp	4	669	54.4	670	54.4	<b>669</b>	<b>54.4</b>									
435.gromacs	4	536	53.3	<b>537</b>	<b>53.2</b>	539	53.0									
436.cactusADM	4	<b>829</b>	<b>57.7</b>	824	58.0	829	57.6									
437.leslie3d	4	<b>1029</b>	<b>36.6</b>	1029	36.5	1025	36.7									
444.namd	4	735	43.7	<b>735</b>	<b>43.6</b>	735	43.6									
447.dealII	4	634	72.2	632	72.4	<b>633</b>	<b>72.3</b>									
450.soplex	4	813	41.0	900	37.1	<b>843</b>	<b>39.6</b>									
453.povray	4	<b>319</b>	<b>66.7</b>	321	66.2	319	66.7									
454.calculix	4	501	65.9	<b>500</b>	<b>66.0</b>	500	66.0									
459.GemsFDTD	4	1432	29.6	1489	28.5	<b>1451</b>	<b>29.2</b>									
465.tonto	4	<b>698</b>	<b>56.4</b>	701	56.1	696	56.5									
470.lbm	4	1795	30.6	<b>1794</b>	<b>30.6</b>	1790	30.7									
481.wrf	4	755	59.2	774	57.7	<b>770</b>	<b>58.0</b>									
482.sphinx3	4	1341	58.1	<b>1339</b>	<b>58.2</b>	1337	58.3									

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

## Submit Notes

The config file option 'submit' was used.  
numactl was used to bind copies to the cores

## Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

## Base Compiler Invocation

C benchmarks:  
icc

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## Base Compiler Invocation (Continued)

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icc ifort

## Base Portability Flags

410.bwaves: -DSPEC\_CPU\_LP64  
416.games: -DSPEC\_CPU\_LP64  
433.milc: -DSPEC\_CPU\_LP64  
434.zeusmp: -DSPEC\_CPU\_LP64  
435.gromacs: -DSPEC\_CPU\_LP64 -nofor\_main  
436.cactusADM: -DSPEC\_CPU\_LP64 -nofor\_main  
437.leslie3d: -DSPEC\_CPU\_LP64  
444.namd: -DSPEC\_CPU\_LP64  
447.dealII: -DSPEC\_CPU\_LP64  
450.soplex: -DSPEC\_CPU\_LP64  
453.povray: -DSPEC\_CPU\_LP64  
454.calculix: -DSPEC\_CPU\_LP64 -nofor\_main  
459.GemsFDTD: -DSPEC\_CPU\_LP64  
465.tonto: -DSPEC\_CPU\_LP64  
470.lbm: -DSPEC\_CPU\_LP64  
481.wrf: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_CASE\_FLAG -DSPEC\_CPU\_LINUX  
482.sphinx3: -DSPEC\_CPU\_LP64

## Base Optimization Flags

C benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -static

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -static

Fortran benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -static

Benchmarks using both Fortran and C:

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-fp-linux64-revA.20090710.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-fp-linux64-revA.20090710.xml>

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For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.1.

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