



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp®2006 = Not Run

PowerEdge R410 (Intel Xeon E5502, 1.86 GHz)

SPECfp\_base2006 = 18.0

CPU2006 license: 55

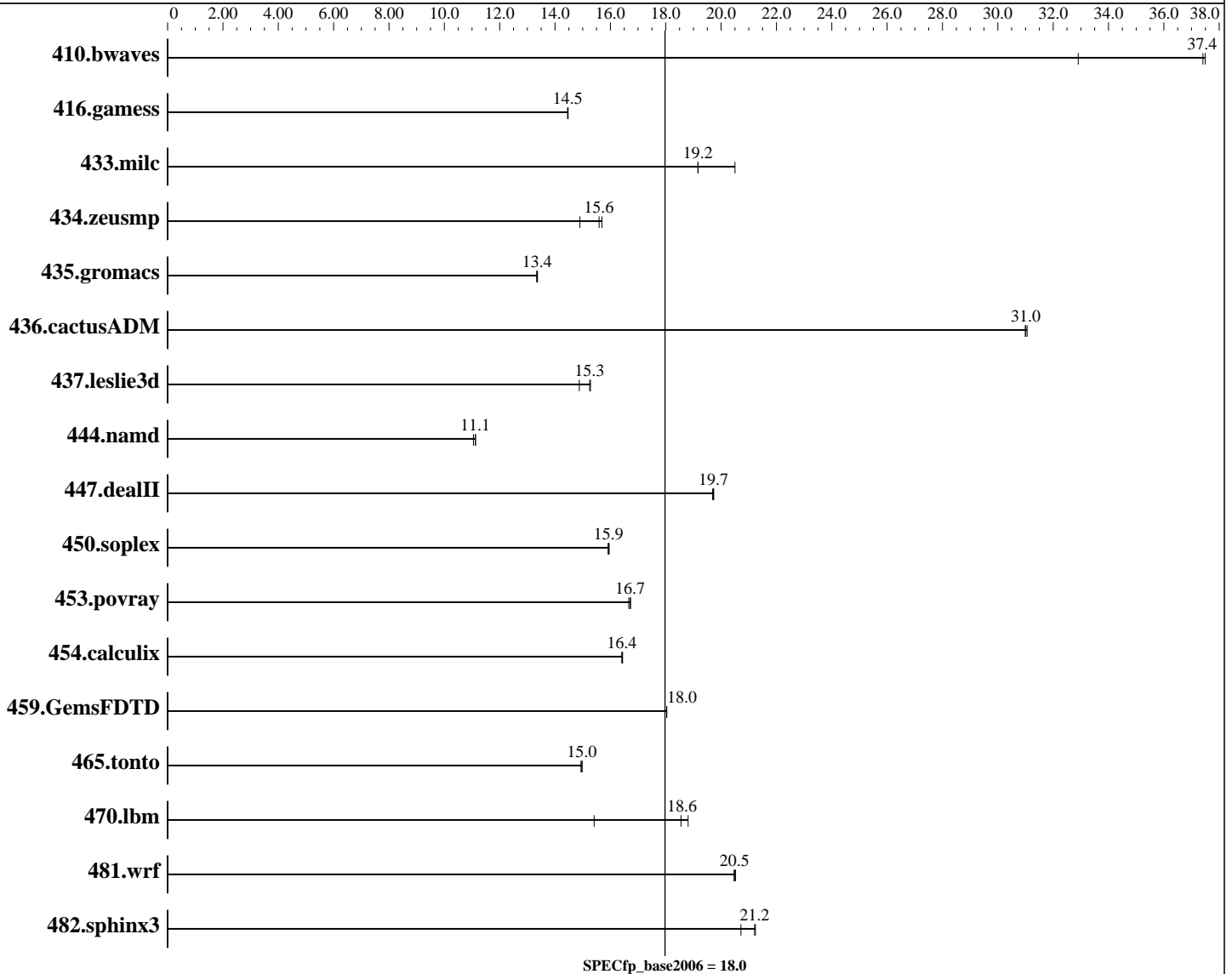
Test date: Sep-2009

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: 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: 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: Yes  
 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					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	413	32.9	<b><u>363</u></b>	<b><u>37.4</u></b>	362	37.5						
416.gamess	1354	14.5	1353	14.5	<b><u>1354</u></b>	<b><u>14.5</u></b>						
433.milc	448	20.5	479	19.2	<b><u>479</u></b>	<b><u>19.2</u></b>						
434.zeusmp	611	14.9	580	15.7	<b><u>584</u></b>	<b><u>15.6</u></b>						
435.gromacs	535	13.3	534	13.4	<b><u>535</u></b>	<b><u>13.4</u></b>						
436.cactusADM	<b><u>385</u></b>	<b><u>31.0</u></b>	386	31.0	385	31.1						
437.leslie3d	632	14.9	615	15.3	<b><u>616</u></b>	<b><u>15.3</u></b>						
444.namd	726	11.1	721	11.1	<b><u>721</u></b>	<b><u>11.1</u></b>						
447.dealII	580	19.7	<b><u>580</u></b>	<b><u>19.7</u></b>	581	19.7						
450.soplex	523	16.0	524	15.9	<b><u>523</u></b>	<b><u>15.9</u></b>						
453.povray	319	16.7	318	16.7	<b><u>318</u></b>	<b><u>16.7</u></b>						
454.calculix	502	16.4	503	16.4	<b><u>502</u></b>	<b><u>16.4</u></b>						
459.GemsFDTD	588	18.0	<b><u>588</u></b>	<b><u>18.0</u></b>	588	18.0						
465.tonto	<b><u>657</u></b>	<b><u>15.0</u></b>	659	14.9	657	15.0						
470.lbm	<b><u>741</u></b>	<b><u>18.6</u></b>	731	18.8	891	15.4						
481.wrf	546	20.5	<b><u>545</u></b>	<b><u>20.5</u></b>	544	20.5						
482.sphinx3	941	20.7	<b><u>919</u></b>	<b><u>21.2</u></b>	918	21.2						

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

## Operating System Notes

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

## General Notes

OMP\_NUM\_THREADS set to number of cores  
 KMP\_AFFINITY set to granularity=fine,scatter  
 KMP\_STACKSIZE set to 200M



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## Base Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icc ifort

## Base Portability Flags

410.bwaves: -DSPEC\_CPU\_LP64  
 416.gamess: -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 -parallel -opt-prefetch

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Fortran benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:

-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch



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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.20090805.01.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.20090805.01.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).

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