



# 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 = 18.6

CPU2006 license: 55

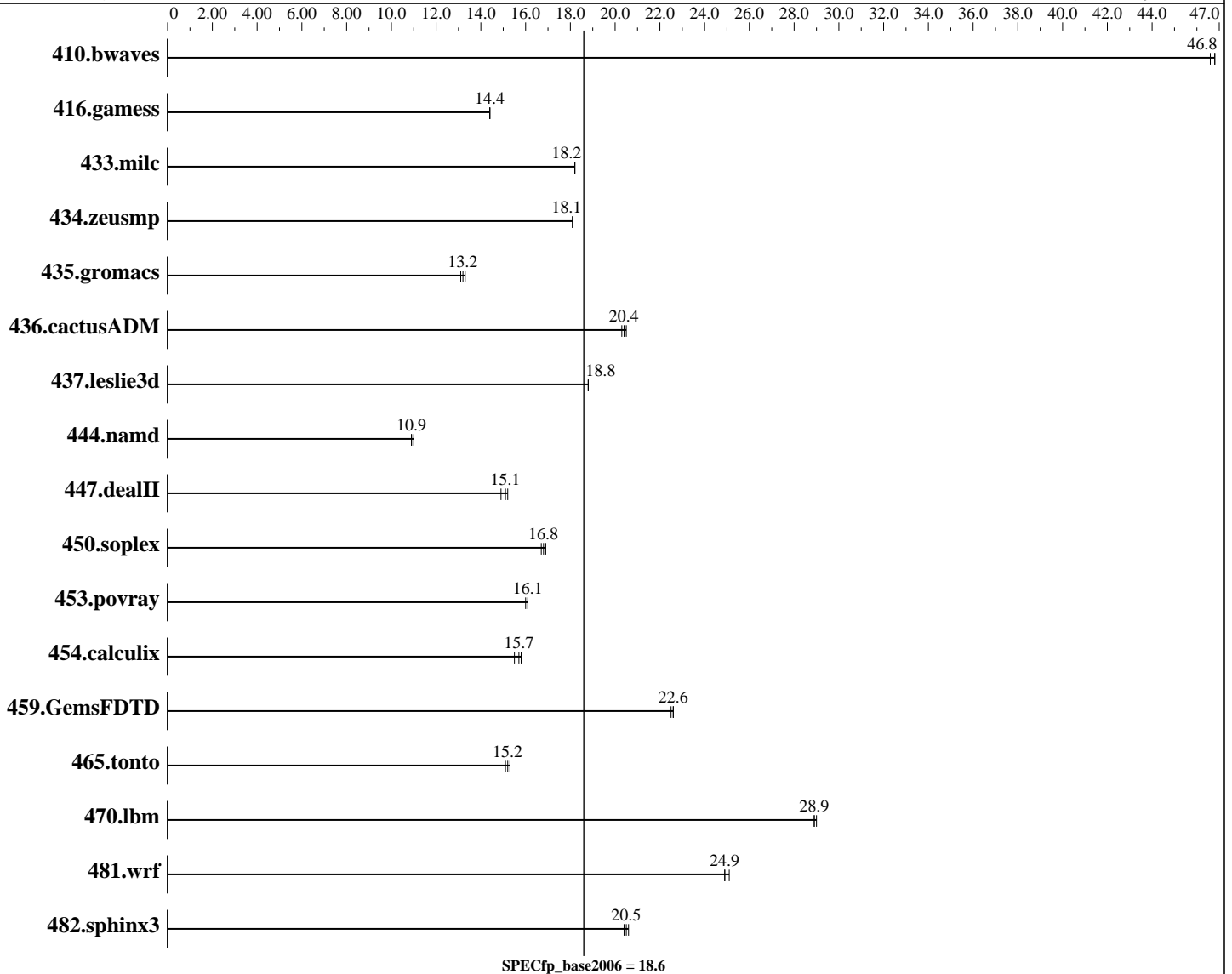
Test date: Sep-2009

Test sponsor: Dell Inc.

Hardware Availability: Jun-2009

Tested by: Dell Inc.

Software Availability: May-2009



### Hardware

CPU Name: Intel Xeon E5502  
 CPU Characteristics:  
 CPU MHz: 1867  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 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: Yes  
 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					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	292	46.6	290	46.8	<b><u>291</u></b>	<b><u>46.8</u></b>						
416.gamess	1361	14.4	<b><u>1363</u></b>	<b><u>14.4</u></b>	1364	14.4						
433.milc	505	18.2	504	18.2	<b><u>505</u></b>	<b><u>18.2</u></b>						
434.zeusmp	504	18.1	502	18.1	<b><u>502</u></b>	<b><u>18.1</u></b>						
435.gromacs	544	13.1	<b><u>541</u></b>	<b><u>13.2</u></b>	538	13.3						
436.cactusADM	<b><u>585</u></b>	<b><u>20.4</u></b>	582	20.5	588	20.3						
437.leslie3d	500	18.8	<b><u>500</u></b>	<b><u>18.8</u></b>	500	18.8						
444.namd	<b><u>734</u></b>	<b><u>10.9</u></b>	736	10.9	729	11.0						
447.dealII	752	15.2	<b><u>757</u></b>	<b><u>15.1</u></b>	768	14.9						
450.soplex	495	16.9	<b><u>496</u></b>	<b><u>16.8</u></b>	499	16.7						
453.povray	<b><u>330</u></b>	<b><u>16.1</u></b>	330	16.1	332	16.0						
454.calculix	523	15.8	<b><u>524</u></b>	<b><u>15.7</u></b>	531	15.5						
459.GemsFDTD	<b><u>471</u></b>	<b><u>22.6</u></b>	469	22.6	471	22.5						
465.tonto	<b><u>647</u></b>	<b><u>15.2</u></b>	645	15.3	651	15.1						
470.lbm	474	29.0	<b><u>475</u></b>	<b><u>28.9</u></b>	476	28.9						
481.wrf	<b><u>449</u></b>	<b><u>24.9</u></b>	449	24.9	446	25.1						
482.sphinx3	948	20.6	<b><u>952</u></b>	<b><u>20.5</u></b>	957	20.4						

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 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- -Qparallel
-Qopt-prefetch /F512000000
```

C++ benchmarks:

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

Fortran benchmarks:

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

Benchmarks using both Fortran and C:

```
-QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div- -Qparallel
-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](mailto:webmaster@spec.org).

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