# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

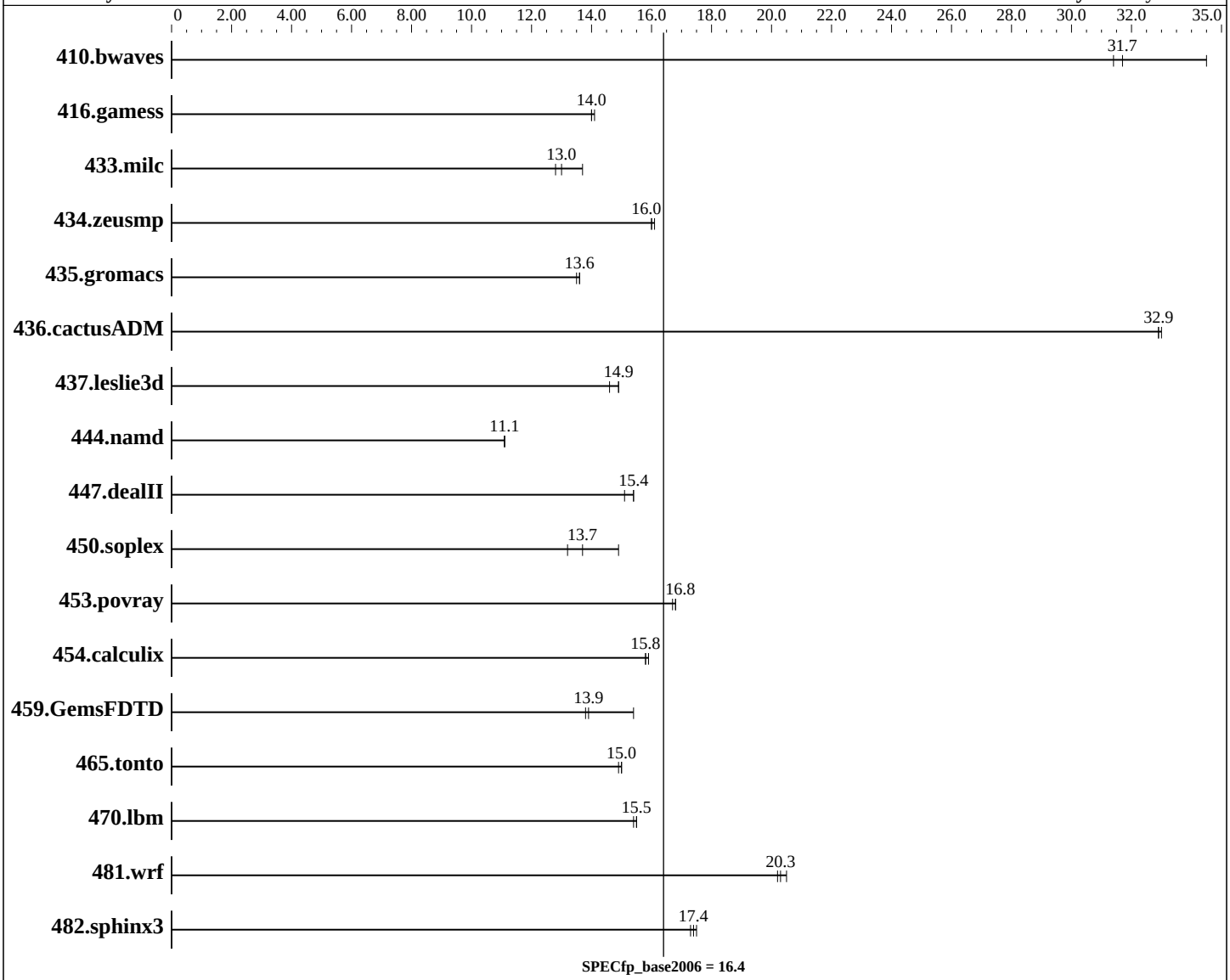
PowerEdge R410 (Intel Xeon E5502, 1.86 GHz)

SPECfp®2006 = Not Run

SPECfp_base2006 = 16.4

**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 |

Continued on next page

## 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<br>Intel Visual Fortran Compiler for Intel 64, Version 11.0 Build 20090131 Package ID: w_cprof_p_11.0.072<br>Microsoft Visual Studio 2008 SP1 |
| Auto Parallel: | Yes |
| File System: | NTFS |

Continued on next page

# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Dell Inc.

PowerEdge R410 (Intel Xeon E5502, 1.86 GHz)

SPECfp2006 = Not Run

SPECfp_base2006 = 16.4

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

**Test date:** Sep-2009
**Hardware Availability:** Jun-2009
**Software Availability:** May-2009

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 | **428** | **31.7** | 394 | 34.5 | 432 | 31.4 | | | | | | |
| 416.gamess | 1394 | 14.1 | 1395 | 14.0 | **1394** | **14.0** | | | | | | |
| 433.milc | 719 | 12.8 | 670 | 13.7 | **708** | **13.0** | | | | | | |
| 434.zeusmp | 565 | 16.1 | **570** | **16.0** | 570 | 16.0 | | | | | | |
| 435.gromacs | 529 | 13.5 | 527 | 13.6 | **527** | **13.6** | | | | | | |
| 436.cactusADM | **363** | **32.9** | 362 | 33.0 | 363 | 32.9 | | | | | | |
| 437.leslie3d | 645 | 14.6 | 631 | 14.9 | **632** | **14.9** | | | | | | |
| 444.namd | **724** | **11.1** | 725 | 11.1 | 724 | 11.1 | | | | | | |
| 447.dealII | 755 | 15.1 | 742 | 15.4 | **742** | **15.4** | | | | | | |
| 450.soplex | **607** | **13.7** | 559 | 14.9 | 630 | 13.2 | | | | | | |
| 453.povray | 318 | 16.7 | **317** | **16.8** | 317 | 16.8 | | | | | | |
| 454.calculix | **521** | **15.8** | 520 | 15.9 | 522 | 15.8 | | | | | | |
| 459.GemsFDTD | **765** | **13.9** | 689 | 15.4 | 768 | 13.8 | | | | | | |
| 465.tonto | 656 | 15.0 | 659 | 14.9 | **656** | **15.0** | | | | | | |
| 470.lbm | 889 | 15.5 | **889** | **15.5** | 890 | 15.4 | | | | | | |
| 481.wrf | 545 | 20.5 | 554 | 20.2 | **550** | **20.3** | | | | | | |
| 482.sphinx3 | 1112 | 17.5 | **1118** | **17.4** | 1124 | 17.3 | | | | | | |

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
```

Continued on next page

## 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

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`


SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.


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

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 03:00:25 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 29 September 2009.