



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp®2006 = 44.0

Dell Precision T7500 (Intel Xeon X5677, 3.47 GHz)

SPECfp\_base2006 = 41.8

CPU2006 license: 55

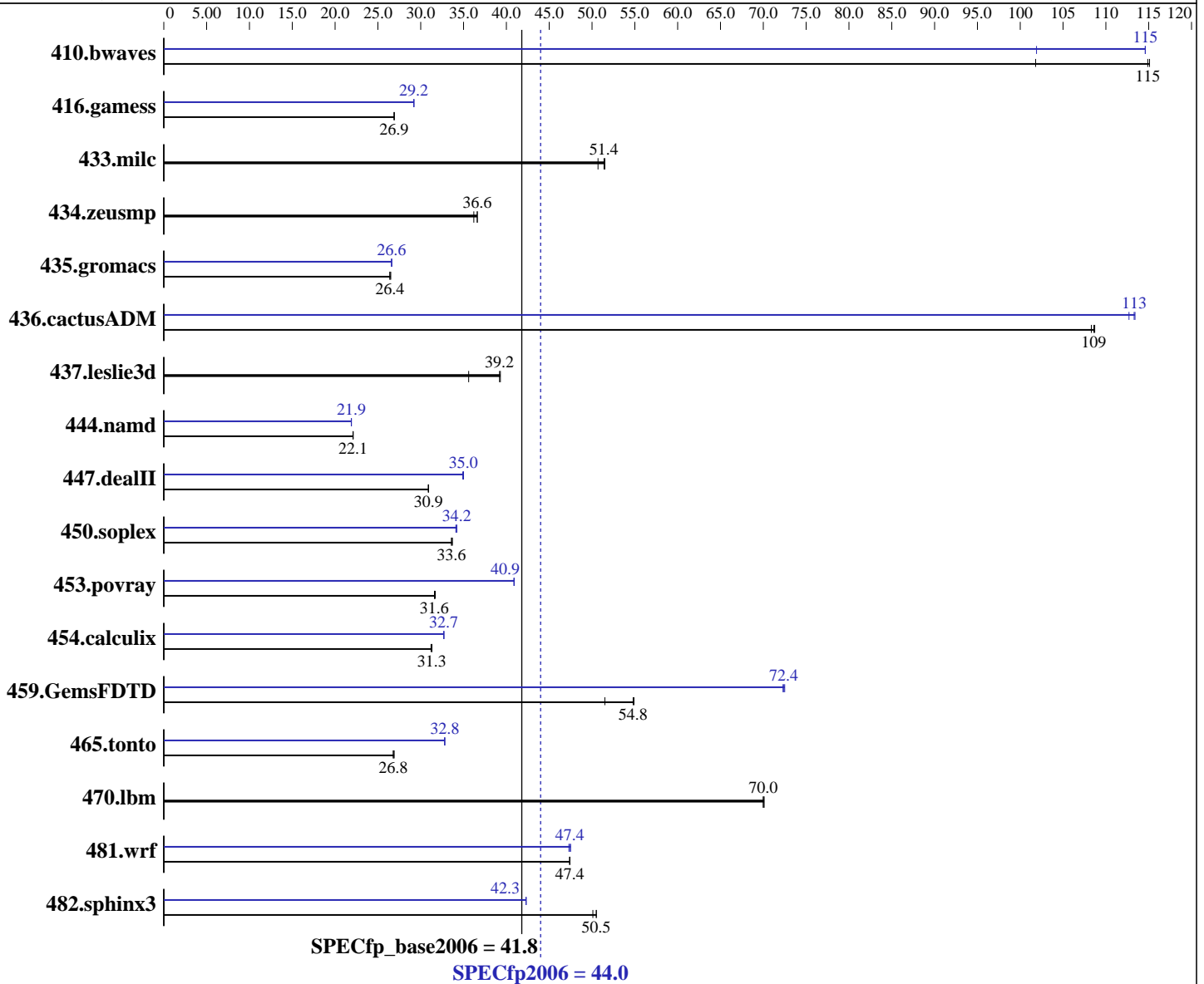
Test date: Feb-2010

Test sponsor: Dell Inc.

Hardware Availability: Mar-2010

Tested by: Dell Inc.

Software Availability: Dec-2009



### Hardware

CPU Name: Intel Xeon X5677  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.73 GHz  
 CPU MHz: 3466  
 FPU: Integrated  
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip, 2 threads/core  
 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: Windows 7 Professional (64-bit)  
 Compiler: Intel C++ Compiler Professional for Intel 64, Version 11.1  
 Build 20091130 Package ID: w\_cproc\_p\_11.1.054  
 Intel Visual Fortran Compiler Professional for Intel 64, Version 11.1  
 Build 20091130 Package ID: w\_cprof\_p\_11.1.054  
 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.

SPECfp2006 = 44.0

Dell Precision T7500 (Intel Xeon X5677, 3.47 GHz)

SPECfp\_base2006 = 41.8

CPU2006 license: 55

Test date: Feb-2010

Test sponsor: Dell Inc.

Hardware Availability: Mar-2010

Tested by: Dell Inc.

Software Availability: Dec-2009

L3 Cache: 12 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 48 GB (12x4 GB PC3-10600R)  
 Disk Subsystem: 1 x 160 GB SATA 7200 RPM  
 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	118	115	134	102	<u>118</u>	<u>115</u>	133	102	119	115	<u>119</u>	<u>115</u>
416.gamess	728	26.9	729	26.9	<u>729</u>	<u>26.9</u>	671	29.2	670	29.2	<u>671</u>	<u>29.2</u>
433.milc	<u>179</u>	<u>51.4</u>	178	51.5	181	50.7	<u>179</u>	<u>51.4</u>	178	51.5	181	50.7
434.zeusmp	248	36.6	<u>249</u>	<u>36.6</u>	251	36.2	248	36.6	<u>249</u>	<u>36.6</u>	251	36.2
435.gromacs	<u>270</u>	<u>26.4</u>	270	26.4	270	26.5	268	26.6	<u>268</u>	<u>26.6</u>	268	26.6
436.cactusADM	110	108	110	109	<u>110</u>	<u>109</u>	105	113	<u>106</u>	<u>113</u>	106	113
437.leslie3d	264	35.6	239	39.3	<u>240</u>	<u>39.2</u>	264	35.6	239	39.3	<u>240</u>	<u>39.2</u>
444.namd	363	22.1	<u>363</u>	<u>22.1</u>	363	22.1	366	21.9	365	21.9	<u>366</u>	<u>21.9</u>
447.dealII	370	30.9	<u>370</u>	<u>30.9</u>	371	30.9	327	35.0	<u>327</u>	<u>35.0</u>	327	34.9
450.soplex	<u>248</u>	<u>33.6</u>	248	33.7	249	33.6	245	34.1	244	34.2	<u>244</u>	<u>34.2</u>
453.povray	168	31.7	168	31.6	<u>168</u>	<u>31.6</u>	<u>130</u>	<u>40.9</u>	130	40.9	130	40.9
454.calculix	264	31.3	<u>264</u>	<u>31.3</u>	264	31.2	252	32.7	252	32.7	<u>252</u>	<u>32.7</u>
459.GemsFDTD	193	54.9	<u>194</u>	<u>54.8</u>	206	51.5	<u>147</u>	<u>72.4</u>	146	72.5	147	72.3
465.tonto	366	26.9	<u>367</u>	<u>26.8</u>	367	26.8	300	32.8	<u>300</u>	<u>32.8</u>	300	32.8
470.lbm	<u>196</u>	<u>70.0</u>	196	70.0	196	70.1	<u>196</u>	<u>70.0</u>	196	70.0	196	70.1
481.wrf	<u>236</u>	<u>47.4</u>	236	47.4	236	47.4	236	47.3	235	47.5	<u>236</u>	<u>47.4</u>
482.sphinx3	386	50.5	<u>386</u>	<u>50.5</u>	389	50.1	461	42.3	<u>461</u>	<u>42.3</u>	461	42.3

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

## Operating System Notes

OMP\_NUM\_THREADS=8 (number of cores)  
 KMP\_AFFINITY=granularity=fine,scatter

## Platform Notes

BIOS Settings  
 Memory Node Interleaving: NUMA  
 Hyper-Threading: ENABLE



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp2006 = 44.0

Dell Precision T7500 (Intel Xeon X5677, 3.47 GHz)

SPECfp\_base2006 = 41.8

CPU2006 license: 55

Test date: Feb-2010

Test sponsor: Dell Inc.

Hardware Availability: Mar-2010

Tested by: Dell Inc.

Software Availability: Dec-2009

## 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

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

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp2006 = 44.0

Dell Precision T7500 (Intel Xeon X5677, 3.47 GHz)

SPECfp\_base2006 = 41.8

CPU2006 license: 55

Test date: Feb-2010

Test sponsor: Dell Inc.

Hardware Availability: Mar-2010

Tested by: Dell Inc.

Software Availability: Dec-2009

## Base Optimization Flags (Continued)

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

## Peak Compiler Invocation

C benchmarks:

icl -Qvc9 -Qstd=c99

C++ benchmarks:

icl -Qvc9

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc9 -Qstd=c99 ifort

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

433.milc: basepeak = yes

470.lbm: basepeak = yes

482.sphinx3: -QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div- -Qunroll2  
/F512000000

C++ benchmarks:

444.namd: -Qprof\_gen(pass 1) -QxSSE4.2(pass 2) -Qauto-ilp32(pass 2)  
-Qprof\_use(pass 2) -Qipo -O3 -Qprec-div- -Oa /F512000000  
shlw64mt.lib -link /FORCE:MULTIPLE

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp2006 = 44.0

Dell Precision T7500 (Intel Xeon X5677, 3.47 GHz)

SPECfp\_base2006 = 41.8

CPU2006 license: 55

Test date: Feb-2010

Test sponsor: Dell Inc.

Hardware Availability: Mar-2010

Tested by: Dell Inc.

Software Availability: Dec-2009

## Peak Optimization Flags (Continued)

447.dealIII: -Qprof\_gen(pass 1) -QxSSE4.2(pass 2) -Qauto-ilp32(pass 2)  
-Qprof\_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll2  
-Qopt-prefetch -Qansi-alias -Qscalar-rep- /F512000000  
shlw64mt.lib -link /FORCE:MULTIPLE

450.soplex: -Qprof\_gen(pass 1) -QxSSE4.2 -Qauto-ilp32  
-Qprof\_use(pass 2) -Qipo -O3 -Qprec-div- /F512000000  
shlw64mt.lib -link /FORCE:MULTIPLE

453.povray: -Qprof\_gen(pass 1) -QxSSE4.2(pass 2) -Qauto-ilp32(pass 2)  
-Qprof\_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll4  
-Qansi-alias /F512000000 shlw64mt.lib  
-link /FORCE:MULTIPLE

### Fortran benchmarks:

410.bwaves: -QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div-  
-Qopt-prefetch -Qparallel /F1000000000

416.gamess: -Qprof\_gen(pass 1) -QxSSE4.2(pass 2) -Qauto-ilp32(pass 2)  
-Qprof\_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll2 -Ob0  
-Qansi-alias -Qscalar-rep- /F1000000000

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -Qprof\_gen(pass 1) -QxSSE4.2(pass 2) -Qauto-ilp32(pass 2)  
-Qprof\_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll2 -Ob0  
-Qopt-prefetch -Qparallel /F1000000000

465.tonto: -Qprof\_gen(pass 1) -QxSSE4.2(pass 2) -Qauto-ilp32(pass 2)  
-Qprof\_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll4 -Qauto  
/F1000000000

### Benchmarks using both Fortran and C:

435.gromacs: -Qprof\_gen(pass 1) -QxSSE4.2(pass 2) -Qauto-ilp32(pass 2)  
-Qprof\_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch  
/F1000000000

436.cactusADM: -Qprof\_gen(pass 1) -QxSSE4.2(pass 2) -Qauto-ilp32(pass 2)  
-Qprof\_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll2  
-Qopt-prefetch -Qparallel /F1000000000

454.calculix: -QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div- /F1000000000

481.wrf: -QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div-  
-Qopt-prefetch -Qparallel /F1000000000



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp2006 = 44.0

Dell Precision T7500 (Intel Xeon X5677, 3.47 GHz)

SPECfp\_base2006 = 41.8

CPU2006 license: 55

Test date: Feb-2010

Test sponsor: Dell Inc.

Hardware Availability: Mar-2010

Tested by: Dell Inc.

Software Availability: Dec-2009

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

<http://www.spec.org/cpu2006/flags/dell.flags.ic11.1.win.html>

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

<http://www.spec.org/cpu2006/flags/dell.flags.ic11.1.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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.1.  
Report generated on Wed Jul 23 05:19:53 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 30 March 2010.