SPEC® CFP2006 Result

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Dell Inc.

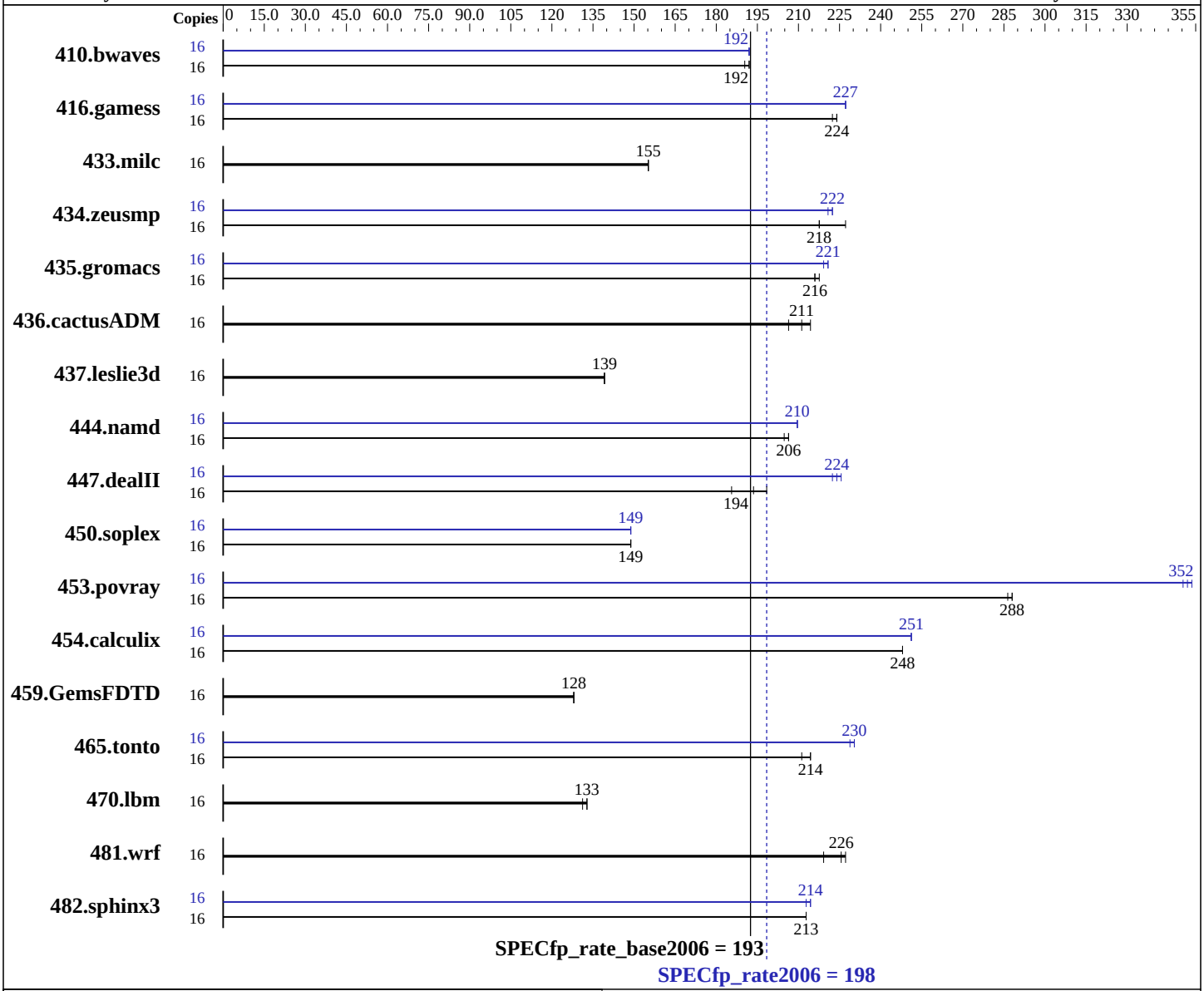
Dell Precision T7500 (Intel Xeon W5590, 3.33 GHz)

SPECfp®_rate2006 = 198

SPECfp_rate_base2006 = 193

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

Test date: Aug-2009
Hardware Availability: Aug-2009
Software Availability: Feb-2009



Hardware

CPU Name:	Intel Xeon W5590
CPU Characteristics:	Intel Turbo Boost Technology up to 3.60 GHz
CPU MHz:	3333
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

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Software

Operating System:	Windows Vista Business SP1 (64-bit)
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:	No
File System:	NTFS

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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	16	1145	190	1130	192	**1130**	**192**	16	1130	192	1130	192	**1130**	**192**
416.gamess	16	1407	222	**1402**	**224**	1400	224	16	**1380**	**227**	1384	227	1379	227
433.milc	16	944	155	945	155	**945**	**155**	16	944	155	945	155	**945**	**155**
434.zeusmp	16	669	218	**667**	**218**	642	227	16	656	222	658	221	**656**	**222**
435.gromacs	16	**528**	**216**	527	218	528	216	16	519	221	**519**	**221**	519	219
436.cactusADM	16	**903**	**211**	892	214	927	206	16	**903**	**211**	892	214	927	206
437.leslie3d	16	1080	139	1082	139	**1080**	**139**	16	1080	139	1082	139	**1080**	**139**
444.namd	16	**624**	**206**	624	206	624	205	16	611	210	612	210	**612**	**210**
447.dealII	16	988	186	923	198	**943**	**194**	16	811	226	824	222	**820**	**224**
450.soplex	16	897	149	**898**	**149**	898	149	16	895	149	**895**	**149**	895	149
453.povray	16	296	286	296	288	**296**	**288**	16	240	354	**242**	**352**	243	350
454.calculix	16	**533**	**248**	533	248	532	248	16	526	251	527	251	**527**	**251**
459.GemsFDTD	16	1321	128	1324	128	**1322**	**128**	16	1321	128	1324	128	**1322**	**128**
465.tonto	16	744	211	733	214	**734**	**214**	16	690	229	**683**	**230**	682	230
470.lbm	16	1671	131	**1664**	**133**	1655	133	16	1671	131	**1664**	**133**	1655	133
481.wrf	16	814	219	**790**	**226**	787	227	16	814	219	**790**	**226**	787	227
482.sphinx3	16	1463	213	1466	213	**1466**	**213**	16	1461	213	1459	214	**1460**	**214**

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.
```

Platform Notes

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

Base Compiler Invocation

C benchmarks:

```
icl -Qvc9 -Qstd=c99
```

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Base Compiler Invocation (Continued)

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- -Qopt-prefetch
/F512000000

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

Fortran benchmarks:
-QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div- -Qopt-prefetch
/F1000000000

Benchmarks using both Fortran and C:
-QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div- -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

447.dealII: -Qprof_gen(pass 1) -QxSSE4.2(pass 2) -Qauto-ilp32(pass 2) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll2 -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

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Peak Optimization Flags (Continued)

Fortran benchmarks:

410.bwaves: -QxSSE4.2 -Qauto-ilp32 -Qipo -O3 -Qprec-div- -Qopt-prefetch /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: -Qprof_gen(pass 1) -QxSSE4.2 -Qauto-ilp32 -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- /F1000000000

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

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: basepeak = yes

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

481.wrf: basepeak = yes

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

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