



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp[®]_rate2006 = 31.6

PowerEdge 860 (Intel Xeon X3210, 2.13 GHz)

SPECfp_rate_base2006 = 30.8

CPU2006 license: 55

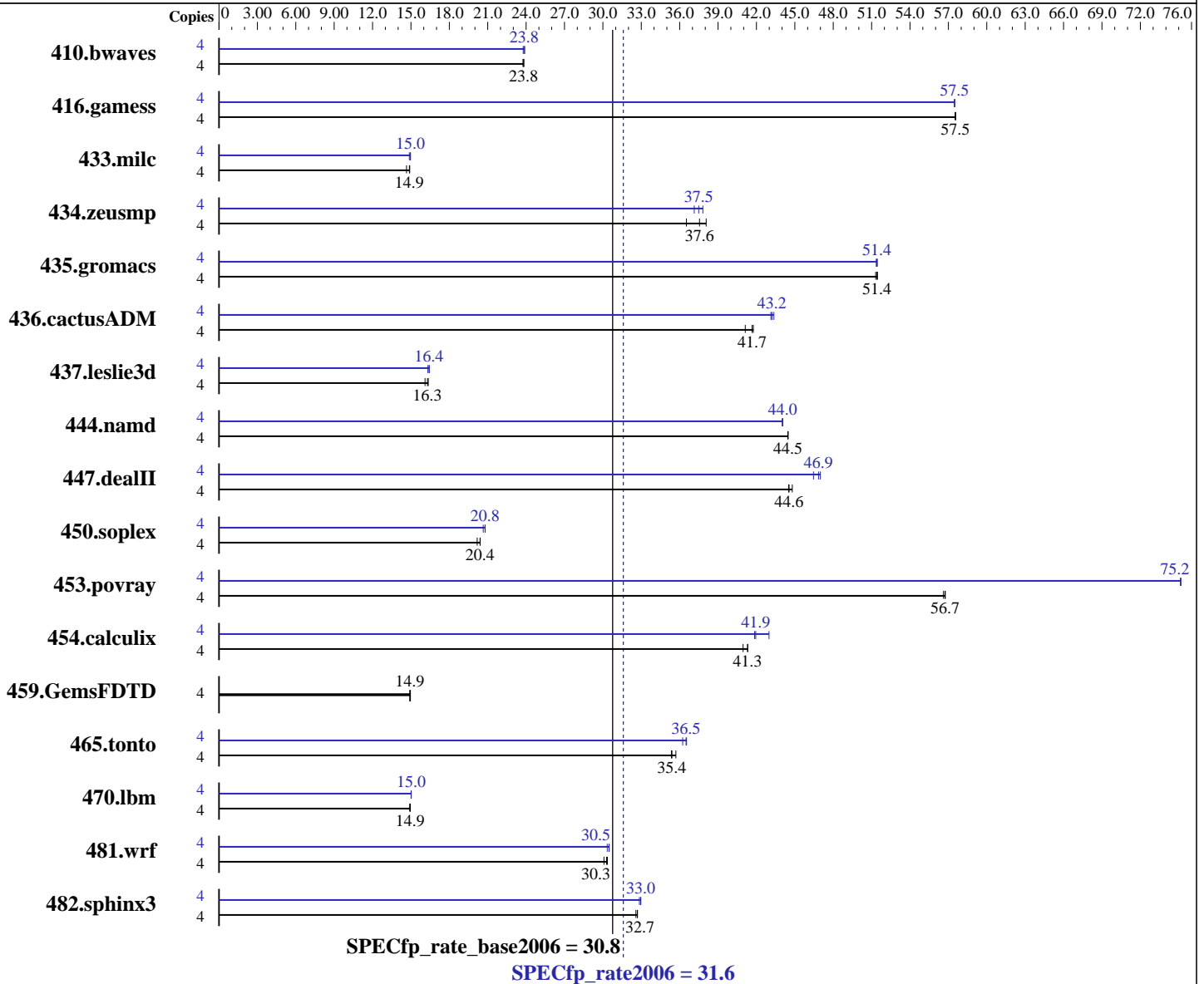
Test date: Jan-2007

Test sponsor: Dell Inc.

Hardware Availability: Jan-2007

Tested by: Dell Inc.

Software Availability: Oct-2006



Hardware

CPU Name: Intel Xeon X3210
 CPU Characteristics: 1066MHz system bus
 CPU MHz: 2133
 FPU: Integrated
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip
 CPU(s) orderable: 1 chip
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 8 MB I+D on chip per chip, 4 MB shared / 2 cores

Continued on next page

Software

Operating System: Windows Server 2003 Enterprise x64 Edition
 Compiler: Intel C++ Compiler 9.1 for EM64T (20060925Z)
 Intel FORTRAN Compiler 9.1 for EM64T (20060925Z)
 Microsoft Visual Studio 2005 (8.0.50727.42)
 Auto Parallel: No
 File System: NTFS
 System State: Default
 Base Pointers: 64-bit
 Peak Pointers: 32/64-bit

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp_rate2006 = 31.6

PowerEdge 860 (Intel Xeon X3210, 2.13 GHz)

SPECfp_rate_base2006 = 30.8

CPU2006 license: 55

Test date: Jan-2007

Test sponsor: Dell Inc.

Hardware Availability: Jan-2007

Tested by: Dell Inc.

Software Availability: Oct-2006

L3 Cache: None
Other Cache: None
Memory: 8 GB (4x2 GB 533MHz ECC DDR2 SDRAM)
Disk Subsystem: 1 x 73GB SAS 10000 RPM
Other Hardware: None

Other Software: MicroQuill SmartHeap Library 8.0

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	2282	23.8	<u>2283</u>	<u>23.8</u>	2289	23.8	4	2287	23.8	<u>2280</u>	<u>23.8</u>	2275	23.9
416.gamess	4	<u>1361</u>	<u>57.5</u>	1360	57.6	1361	57.5	4	1363	57.5	1362	57.5	<u>1363</u>	<u>57.5</u>
433.milc	4	2506	14.7	2464	14.9	<u>2468</u>	<u>14.9</u>	4	2469	14.9	<u>2455</u>	<u>15.0</u>	2454	15.0
434.zeusmp	4	996	36.5	956	38.1	<u>969</u>	<u>37.6</u>	4	<u>971</u>	<u>37.5</u>	980	37.1	963	37.8
435.gromacs	4	557	51.3	<u>555</u>	<u>51.4</u>	555	51.5	4	556	51.4	<u>556</u>	<u>51.4</u>	555	51.4
436.cactusADM	4	1162	41.1	1145	41.8	<u>1147</u>	<u>41.7</u>	4	<u>1106</u>	<u>43.2</u>	1102	43.4	1108	43.1
437.leslie3d	4	2335	16.1	2299	16.4	<u>2308</u>	<u>16.3</u>	4	2303	16.3	2288	16.4	<u>2290</u>	<u>16.4</u>
444.namd	4	722	44.5	721	44.5	<u>721</u>	<u>44.5</u>	4	729	44.0	728	44.1	<u>728</u>	<u>44.0</u>
447.dealII	4	1021	44.8	1028	44.5	<u>1027</u>	<u>44.6</u>	4	<u>977</u>	<u>46.9</u>	985	46.5	974	47.0
450.soplex	4	1653	20.2	1635	20.4	<u>1635</u>	<u>20.4</u>	4	1615	20.7	1604	20.8	<u>1605</u>	<u>20.8</u>
453.povray	4	376	56.6	<u>375</u>	<u>56.7</u>	375	56.8	4	<u>283</u>	<u>75.2</u>	283	75.2	283	75.1
454.calculix	4	799	41.3	806	41.0	<u>799</u>	<u>41.3</u>	4	768	43.0	<u>787</u>	<u>41.9</u>	788	41.9
459.GemsFDTD	4	2837	15.0	2845	14.9	<u>2844</u>	<u>14.9</u>	4	2837	15.0	2845	14.9	<u>2844</u>	<u>14.9</u>
465.tonto	4	<u>1112</u>	<u>35.4</u>	1102	35.7	1113	35.4	4	1086	36.2	<u>1078</u>	<u>36.5</u>	1077	36.5
470.lbm	4	3688	14.9	<u>3677</u>	<u>14.9</u>	3677	14.9	4	3658	15.0	<u>3659</u>	<u>15.0</u>	3662	15.0
481.wrf	4	1485	30.1	<u>1475</u>	<u>30.3</u>	1472	30.4	4	1473	30.3	1465	30.5	<u>1466</u>	<u>30.5</u>
482.sphinx3	4	2393	32.6	2384	32.7	<u>2384</u>	<u>32.7</u>	4	2373	32.9	2365	33.0	<u>2366</u>	<u>33.0</u>

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

General Notes

Adjacent Sector Prefetch disabled in BIOS, default enabled
Binaries were built on Windows XP Professional x64 Edition

Base Compiler Invocation

C benchmarks:
icl -Qc99

C++ benchmarks:
icl

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp_rate2006 = 31.6

PowerEdge 860 (Intel Xeon X3210, 2.13 GHz)

SPECfp_rate_base2006 = 30.8

CPU2006 license: 55

Test date: Jan-2007

Test sponsor: Dell Inc.

Hardware Availability: Jan-2007

Tested by: Dell Inc.

Software Availability: Oct-2006

Base Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qc99 ifort

Base Portability Flags

410.bwaves: -DSPEC_CPU_P64
 416.gamess: -DSPEC_CPU_P64
 433.milc: -D_Complex= -DSPEC_CPU_P64
 434.zeusmp: -DSPEC_CPU_P64
 435.gromacs: -D_Complex= -DSPEC_CPU_P64
 436.cactusADM: -D_Complex= -DSPEC_CPU_P64 -Qlowercase /assume:underscore
 437.leslie3d: -DSPEC_CPU_P64
 444.namd: -DSPEC_CPU_P64 /TP
 447.dealII: -D_Complex= -DSPEC_CPU_P64 -DBOOST_NO_INTRINSIC_WCHAR_T
 -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
 450.soplex: -DSPEC_CPU_P64
 453.povray: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
 454.calculix: -D_Complex= -DSPEC_CPU_P64 -DSPEC_CPU_NOZMODIFIER
 -Qlowercase
 459.GemsFDTD: -DSPEC_CPU_P64
 465.tonto: -DSPEC_CPU_P64
 470.lbm: -D_Complex= -DSPEC_CPU_P64
 481.wrf: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
 482.sphinx3: -D_Complex= -DSPEC_CPU_P64

Base Optimization Flags

C benchmarks:

-fast /F950000000 shlw64M.lib -link /FORCE:MULTIPLE

C++ benchmarks:

-fast -Qcxx_features /F950000000 shlw64M.lib
-link /FORCE:MULTIPLE

Fortran benchmarks:

-fast /F950000000 -link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:

-fast /F950000000 -link /FORCE:MULTIPLE



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp_rate2006 = 31.6

PowerEdge 860 (Intel Xeon X3210, 2.13 GHz)

SPECfp_rate_base2006 = 30.8

CPU2006 license: 55

Test date: Jan-2007

Test sponsor: Dell Inc.

Hardware Availability: Jan-2007

Tested by: Dell Inc.

Software Availability: Oct-2006

Peak Compiler Invocation

C benchmarks:
icl -Qc99

C++ benchmarks:
icl

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icl -Qc99 ifort

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
ONESTEP -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto_ilp32
/F950000000 shlW64M.lib -link /FORCE:MULTIPLE

C++ benchmarks:
ONESTEP -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto_ilp32
-Qcxx_features /F950000000 shlW64M.lib
-link /FORCE:MULTIPLE

Fortran benchmarks:

410.bwaves: ONESTEP -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast
-Qauto_ilp32 /F950000000 -link /FORCE:MULTIPLE

416.gamess: ONESTEP -fast -Qauto_ilp32 /F950000000
-link /FORCE:MULTIPLE

434.zeusmp: Same as 410.bwaves

437.leslie3d: Same as 410.bwaves

459.GemsFDTD: basepeak = yes

465.tonto: Same as 410.bwaves

Benchmarks using both Fortran and C:

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECfp_rate2006 = 31.6

PowerEdge 860 (Intel Xeon X3210, 2.13 GHz)

SPECfp_rate_base2006 = 30.8

CPU2006 license: 55

Test date: Jan-2007

Test sponsor: Dell Inc.

Hardware Availability: Jan-2007

Tested by: Dell Inc.

Software Availability: Oct-2006

Peak Optimization Flags (Continued)

435.gromacs: -fast -Qauto_ilp32 /F950000000
-link /FORCE:MULTIPLE

436.cactusADM: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qauto_ilp32
/F950000000 -link /FORCE:MULTIPLE

454.calculix: Same as 436.cactusADM

481.wrf: Same as 435.gromacs

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

<http://www.spec.org/cpu2006/flags/dell.cpu2006.ic91.x64.flags.html>

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

<http://www.spec.org/cpu2006/flags/dell.cpu2006.ic91.x64.flags.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 v1.0.
Report generated on Tue Jul 22 10:57:10 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 7 February 2007.