



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECfp[®]2006 = **24.0**

IBM System x iDataPlex dx360 (Intel Xeon L5240)

SPECfp_base2006 = **23.0**

CPU2006 license: 11

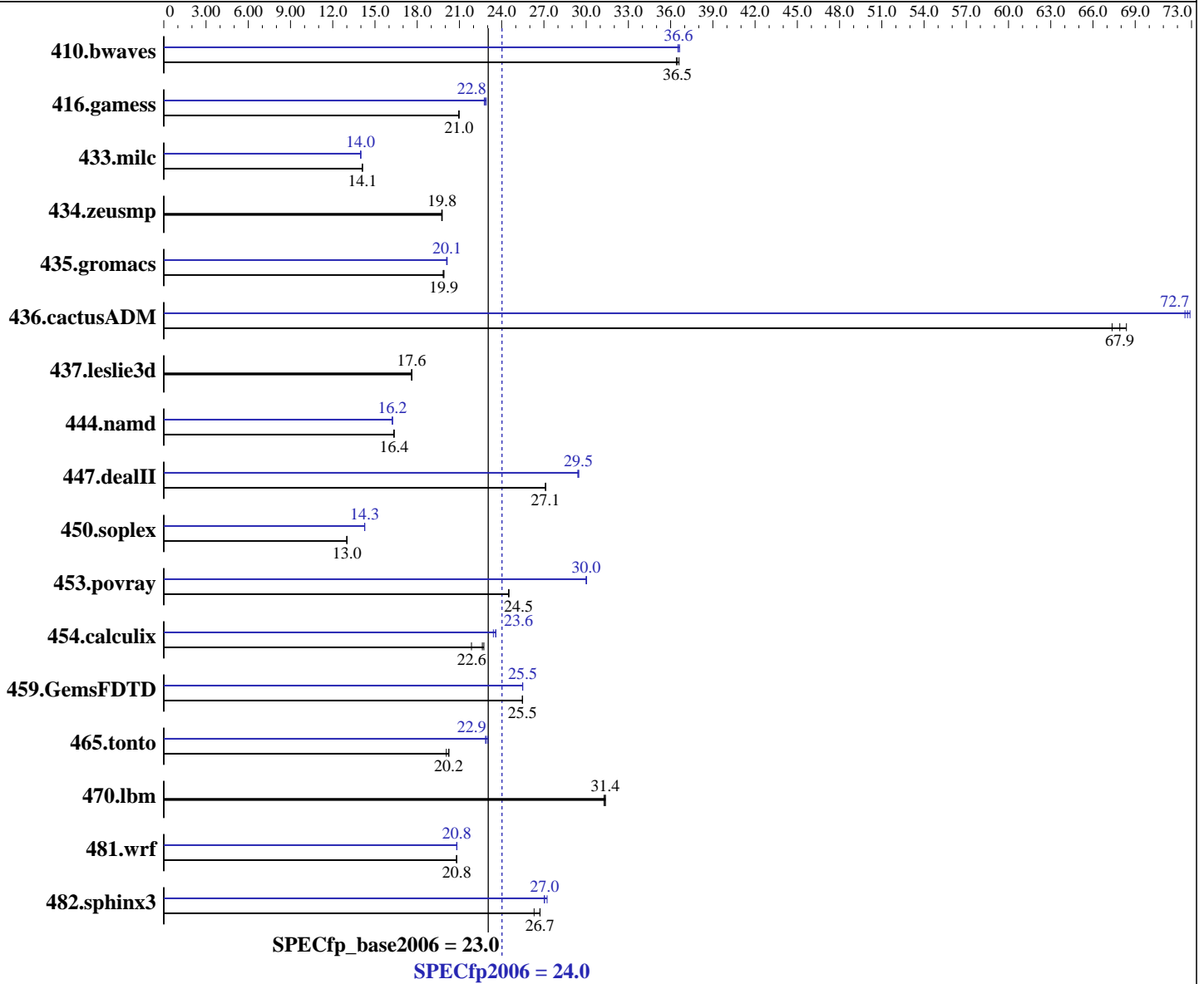
Test date: Mar-2009

Test sponsor: IBM Corporation

Hardware Availability: Nov-2008

Tested by: IBM Corporation

Software Availability: Feb-2009



Hardware

CPU Name: Intel Xeon L5240
 CPU Characteristics: 1333MHz system bus
 CPU MHz: 3000
 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: 6 MB I+D on chip per chip

Continued on next page

Software

Operating System: SuSE Linux Enterprise Server 10(x86_64) SP2, Kernel 2.6.16.60-0.21-smp
 Compiler: Intel C++ and Fortran Compiler 11.0 for Linux Build 20080930 Package ID: l_cproc_p_11.0.066, l_cprof_p_11.0.066
 Auto Parallel: Yes
 File System: ReiserFS
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECfp2006 = 24.0

IBM System x iDataPlex dx360 (Intel Xeon L5240)

SPECfp_base2006 = 23.0

CPU2006 license: 11

Test date: Mar-2009

Test sponsor: IBM Corporation

Hardware Availability: Nov-2008

Tested by: IBM Corporation

Software Availability: Feb-2009

L3 Cache: None
Other Cache: None
Memory: 16 GB (8 x 2 GB DDR2-5300F ECC)
Disk Subsystem: 1 x 250 GB SATA, 7200 RPM
Other Hardware: None

Peak Pointers: 32/64-bit
Other Software: Binutils 2.18.50.0.7.20080502

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	373	36.4	371	36.6	<u>372</u>	<u>36.5</u>	372	36.5	371	36.6	<u>372</u>	<u>36.6</u>
416.gamess	933	21.0	<u>934</u>	<u>21.0</u>	935	21.0	855	22.9	<u>857</u>	<u>22.8</u>	860	22.8
433.milc	<u>651</u>	<u>14.1</u>	651	14.1	651	14.1	655	14.0	657	14.0	<u>657</u>	<u>14.0</u>
434.zeusmp	461	19.7	460	19.8	<u>460</u>	<u>19.8</u>	461	19.7	460	19.8	<u>460</u>	<u>19.8</u>
435.gromacs	359	19.9	<u>359</u>	<u>19.9</u>	360	19.8	355	20.1	355	20.1	<u>355</u>	<u>20.1</u>
436.cactusADM	177	67.4	175	68.4	<u>176</u>	<u>67.9</u>	165	72.5	164	72.9	<u>164</u>	<u>72.7</u>
437.leslie3d	533	17.6	<u>534</u>	<u>17.6</u>	534	17.6	533	17.6	<u>534</u>	<u>17.6</u>	534	17.6
444.namd	<u>490</u>	<u>16.4</u>	490	16.4	491	16.3	<u>494</u>	<u>16.2</u>	494	16.2	494	16.2
447.dealII	422	27.1	<u>422</u>	<u>27.1</u>	422	27.1	388	29.5	389	29.4	<u>388</u>	<u>29.5</u>
450.soplex	641	13.0	642	13.0	<u>641</u>	<u>13.0</u>	584	14.3	585	14.3	<u>584</u>	<u>14.3</u>
453.povray	217	24.5	<u>217</u>	<u>24.5</u>	217	24.5	177	30.0	<u>177</u>	<u>30.0</u>	177	30.0
454.calculix	378	21.9	363	22.7	<u>365</u>	<u>22.6</u>	350	23.6	352	23.4	<u>350</u>	<u>23.6</u>
459.GemsFDTD	<u>416</u>	<u>25.5</u>	416	25.5	417	25.5	<u>416</u>	<u>25.5</u>	416	25.5	416	25.5
465.tonto	<u>486</u>	<u>20.2</u>	486	20.3	490	20.1	427	23.0	431	22.9	<u>430</u>	<u>22.9</u>
470.lbm	<u>438</u>	<u>31.4</u>	438	31.4	439	31.3	<u>438</u>	<u>31.4</u>	438	31.4	439	31.3
481.wrf	<u>537</u>	<u>20.8</u>	537	20.8	537	20.8	537	20.8	<u>537</u>	<u>20.8</u>	536	20.8
482.sphinx3	741	26.3	729	26.7	<u>730</u>	<u>26.7</u>	721	27.0	716	27.2	<u>721</u>	<u>27.0</u>

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

General Notes

Hardware Sector Prefetch Enable and Adjacent Sector Prefetch Enable
OMP_NUM_THREADS set to number of processors
KMP_AFFINITY set to "physical,0"
KMP_STACKSIZE set to 200M

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECfp2006 = 24.0

IBM System x iDataPlex dx360 (Intel Xeon L5240)

SPECfp_base2006 = 23.0

CPU2006 license: 11

Test date: Mar-2009

Test sponsor: IBM Corporation

Hardware Availability: Nov-2008

Tested by: IBM Corporation

Software Availability: Feb-2009

Base Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icc ifort

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
 416.gamess: -DSPEC_CPU_LP64
 433.milc: -DSPEC_CPU_LP64
 434.zeusmp: -DSPEC_CPU_LP64
 435.gromacs: -DSPEC_CPU_LP64 -nofor_main
 436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
 437.leslie3d: -DSPEC_CPU_LP64
 444.namd: -DSPEC_CPU_LP64
 447.dealII: -DSPEC_CPU_LP64
 450.soplex: -DSPEC_CPU_LP64
 453.povray: -DSPEC_CPU_LP64
 454.calculix: -DSPEC_CPU_LP64 -nofor_main
 459.GemsFDTD: -DSPEC_CPU_LP64
 465.tonto: -DSPEC_CPU_LP64
 470.lbm: -DSPEC_CPU_LP64
 481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
 482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:

-xSSE4.1 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

C++ benchmarks:

-xSSE4.1 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Fortran benchmarks:

-xSSE4.1 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:

-xSSE4.1 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Peak Compiler Invocation

C benchmarks (except as noted below):

icc

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECfp2006 = 24.0

IBM System x iDataPlex dx360 (Intel Xeon L5240)

SPECfp_base2006 = 23.0

CPU2006 license: 11

Test date: Mar-2009

Test sponsor: IBM Corporation

Hardware Availability: Nov-2008

Tested by: IBM Corporation

Software Availability: Feb-2009

Peak Compiler Invocation (Continued)

482.sphinx3: icc -m32

C++ benchmarks (except as noted below):

icpc

450.soplex: icpc -m32

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icc ifort

Peak Portability Flags

410.bwaves: -DSPEC_CPU_LP64
 416.gamess: -DSPEC_CPU_LP64
 433.milc: -DSPEC_CPU_LP64
 434.zeusmp: -DSPEC_CPU_LP64
 435.gromacs: -DSPEC_CPU_LP64 -nofor_main
 436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
 437.leslie3d: -DSPEC_CPU_LP64
 444.namd: -DSPEC_CPU_LP64
 447.dealII: -DSPEC_CPU_LP64
 453.povray: -DSPEC_CPU_LP64
 454.calculix: -DSPEC_CPU_LP64 -nofor_main
 459.GemsFDTD: -DSPEC_CPU_LP64
 465.tonto: -DSPEC_CPU_LP64
 470.lbm: -DSPEC_CPU_LP64
 481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

433.milc: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -fno-alias

470.lbm: basepeak = yes

482.sphinx3: -xSSE4.1 -ipo -O3 -no-prec-div -static -unroll2

C++ benchmarks:

444.namd: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -fno-alias -auto-ilp32

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECfp2006 = 24.0

IBM System x iDataPlex dx360 (Intel Xeon L5240)

SPECfp_base2006 = 23.0

CPU2006 license: 11

Test date: Mar-2009

Test sponsor: IBM Corporation

Hardware Availability: Nov-2008

Tested by: IBM Corporation

Software Availability: Feb-2009

Peak Optimization Flags (Continued)

447.dealIII: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll2 -ansi-alias -scalar-rep-
-opt-prefetch

450.soplex: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -opt-malloc-options=3

453.povray: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll4 -ansi-alias

Fortran benchmarks:

410.bwaves: -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch
-parallel

416.gamess: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll2 -Ob0 -ansi-alias
-scalar-rep-

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll2 -Ob0 -opt-prefetch
-parallel

465.tonto: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll4 -auto

Benchmarks using both Fortran and C:

435.gromacs: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -opt-prefetch -auto-ilp32

436.cactusADM: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll2 -opt-prefetch -parallel
-auto-ilp32

454.calculix: -xSSE4.1 -ipo -O3 -no-prec-div -static -auto-ilp32

481.wrf: -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch
-parallel -auto-ilp32

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-fp-linux64-revA.20090710.18.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-fp-linux64-revA.20090710.18.xml>



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

SPECfp2006 = 24.0

IBM System x iDataPlex dx360 (Intel Xeon L5240)

SPECfp_base2006 = 23.0

CPU2006 license: 11

Test date: Mar-2009

Test sponsor: IBM Corporation

Hardware Availability: Nov-2008

Tested by: IBM Corporation

Software Availability: Feb-2009

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 00:43:43 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 24 June 2009.