SPEC® CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

IBM System x iDataPlex dx340 (Intel Xeon X5260)

$SPECfp^{®}\_rate2006 =$ 58.4
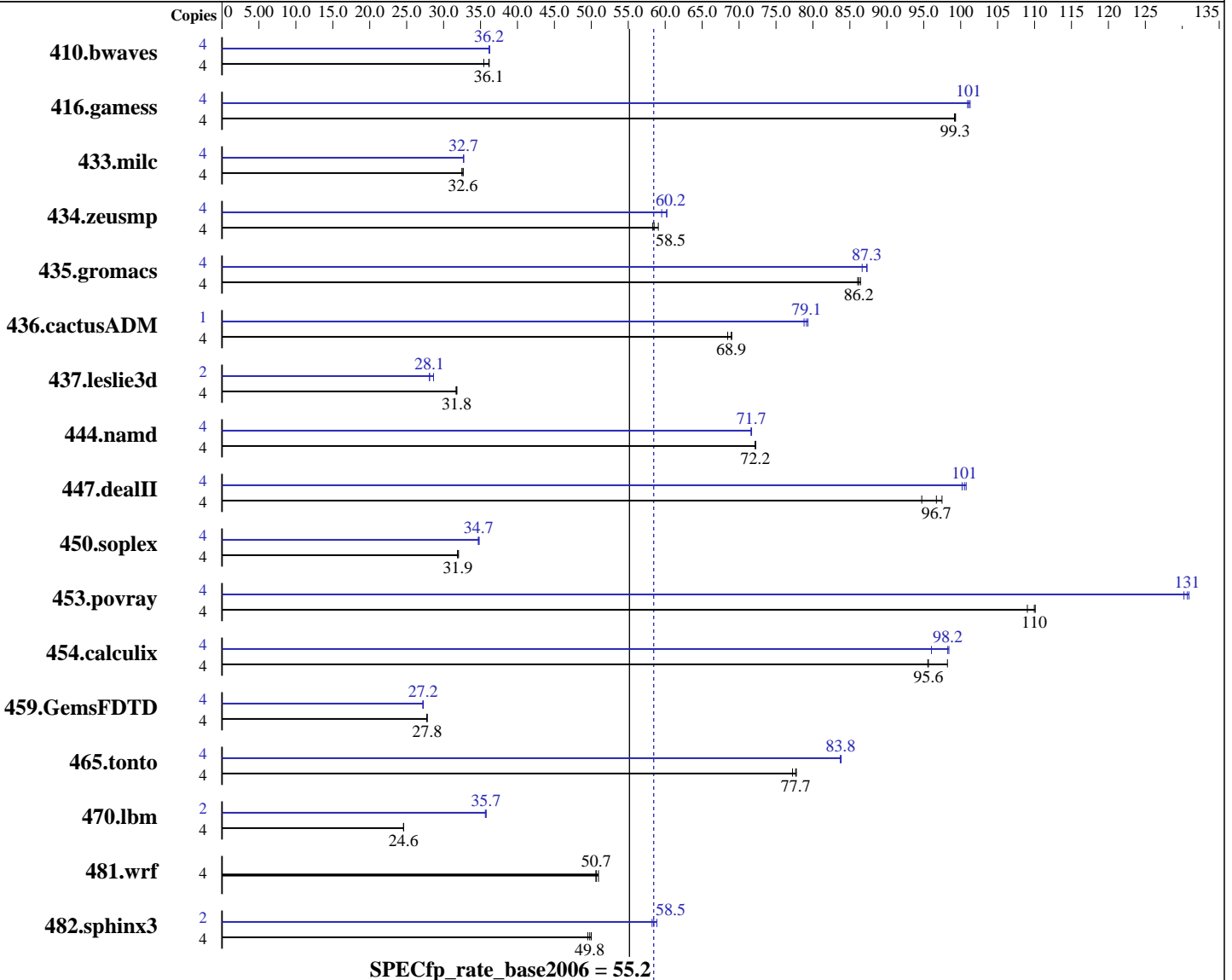
$SPECfp\_rate\_base2006 =$ 55.2

CPU2006 license: 11
Test sponsor: IBM Corporation
Tested by: IBM Corporation

Test date: Oct-2008
Hardware Availability: Oct-2008
Software Availability: Nov-2008

Copies

410.bwaves	4	36.2
	4	36.1
416.gamess	4	101
	4	99.3
433.milc	4	32.7
	4	32.6
434.zeusmp	4	60.2
	4	58.5
435.gromacs	4	87.3
	4	86.2
436.cactusADM	1	79.1
	4	68.9
437.leslie3d	2	28.1
	4	31.8
444.namd	4	71.7
	4	72.2
447.dealII	4	101
	4	96.7
450.soplex	4	34.7
	4	31.9
453.povray	4	131
	4	110
454.calculix	4	98.2
	4	95.6
459.GemsFDTD	4	27.2
	4	27.8
465.tonto	4	83.8
	4	77.7
470.lbm	2	35.7
	4	24.6
481.wrf	4	50.7
482.sphinx3	2	58.5
	4	49.8

SPECfp_rate_base2006 = 55.2

SPECfp_rate2006 = 58.4

Hardware

CPU Name: Intel Xeon X5260
CPU Characteristics: 1333MHz system bus
CPU MHz: 3333
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 20080730 Package ID: l_cproc_b_11.0.042, l_fproc_b_11.0.042
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

IBM System x iDataPlex dx340 (Intel Xeon X5260)

SPECfp_rate2006 =   58.4

SPECfp_rate_base2006 = 55.2

CPU2006 license: 11
Test sponsor: IBM Corporation
Tested by: IBM Corporation

Test date: Oct-2008
Hardware Availability: Oct-2008
Software Availability: Nov-2008

L3 Cache: None
Other Cache: None
Memory: 16 GB (4 x 4 GB PC2-5300F 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						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	1534	35.4	1503	36.2	**1505**	**36.1**	4	1500	36.2	1504	36.2	**1503**	**36.2**
416.gamess	4	**789**	**99.3**	789	99.3	790	99.2	4	776	101	773	101	**775**	**101**
433.milc	4	1131	32.5	1125	32.6	**1125**	**32.6**	4	1123	32.7	1123	32.7	**1123**	**32.7**
434.zeusmp	4	**622**	**58.5**	624	58.3	616	59.1	4	**605**	**60.2**	612	59.5	604	60.2
435.gromacs	4	332	86.1	**331**	**86.2**	330	86.5	4	**327**	**87.3**	330	86.7	327	87.3
436.cactusADM	4	698	68.5	**693**	**68.9**	693	69.0	1	**151**	**79.1**	151	79.3	152	78.8
437.leslie3d	4	1187	31.7	**1184**	**31.8**	1183	31.8	2	656	28.6	**669**	**28.1**	669	28.1
444.namd	4	444	72.2	444	72.3	**444**	**72.2**	4	447	71.7	**448**	**71.7**	448	71.6
447.dealII	4	483	94.7	469	97.5	**473**	**96.7**	4	454	101	457	100	**455**	**101**
450.soplex	4	1042	32.0	**1045**	**31.9**	1046	31.9	4	961	34.7	958	34.8	**961**	**34.7**
453.povray	4	193	110	**194**	**110**	195	109	4	**163**	**131**	163	131	163	130
454.calculix	4	336	98.2	345	95.6	**345**	**95.6**	4	335	98.4	344	96.0	**336**	**98.2**
459.GemsFDTD	4	1528	27.8	**1528**	**27.8**	1531	27.7	4	**1559**	**27.2**	1557	27.3	1561	27.2
465.tonto	4	**507**	**77.7**	506	77.8	510	77.2	4	470	83.7	**470**	**83.8**	470	83.8
470.lbm	4	2237	24.6	**2235**	**24.6**	2234	24.6	2	771	35.6	**769**	**35.7**	769	35.8
481.wrf	4	**882**	**50.7**	883	50.6	877	51.0	4	**882**	**50.7**	883	50.6	877	51.0
482.sphinx3	4	**1566**	**49.8**	1574	49.5	1560	50.0	2	670	58.2	662	58.9	**667**	**58.5**

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.

General Notes

    'ulimit -s unlimited' was used to set the stack size to unlimited prior to run
    taskset was used to bind processes to cores except
    for 436.cactusADM peak
    OMP_NUM_THREADS set to number of processors
    KMP_AFFINITY set to "physical,0"
    KMP_STACKSIZE set to null
    Memory Configuration set to "Performance Optimized"
    Hardware Sector Prefetch Enable and Adjacent Sector Prefetch Enable

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

IBM System x iDataPlex dx340 (Intel Xeon X5260)

$SPECfp\_rate2006 =$ 58.4

$SPECfp\_rate\_base2006 =$ 55.2

CPU2006 license: 11

Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Oct-2008

Hardware Availability: Oct-2008

Software Availability: Nov-2008

Base Compiler Invocation

C benchmarks:
    icc

C++ benchmarks:
    icpc

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 -opt-prefetch

C++ benchmarks:
    -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch

Fortran benchmarks:
    -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch

Benchmarks using both Fortran and C:
    -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

IBM System x iDataPlex dx340 (Intel Xeon X5260)

$SPECfp_rate2006 = $ 58.4

$SPECfp_rate_base2006 = $ 55.2

CPU2006 license: 11
Test sponsor: IBM Corporation
Tested by: IBM Corporation

Test date: Oct-2008
Hardware Availability: Oct-2008
Software Availability: Nov-2008

Peak Compiler Invocation

C benchmarks (except as noted below):
        icc

        482.sphinx3: /opt/intel/Compiler/11.0/042/bin/ia32/icc
                -L/opt/intel/Compiler/11.0/042/ipp/ia32/lib
                -I/opt/intel/Compiler/11.0/042/ipp/ia32/include

C++ benchmarks (except as noted below):
        icpc

        450.soplex: /opt/intel/Compiler/11.0/042/bin/ia32/icpc
                -L/opt/intel/Compiler/11.0/042/ipp/ia32/lib
                -I/opt/intel/Compiler/11.0/042/ipp/ia32/include

Fortran benchmarks (except as noted below):
        ifort

        437.leslie3d: /opt/intel/Compiler/11.0/042/bin/ia32/ifort
                -L/opt/intel/Compiler/11.0/042/ipp/ia32/lib
                -I/opt/intel/Compiler/11.0/042/ipp/ia32/include

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
          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:

Continued on next page

IBM Corporation

IBM System x iDataPlex dx340 (Intel Xeon X5260)

$SPECfp\_rate2006 = \quad 58.4$

$SPECfp\_rate\_base2006 = \quad 55.2$

CPU2006 license: 11	**Test date:** Oct-2008
Test sponsor: IBM Corporation	**Hardware Availability:** Oct-2008
Tested by: IBM Corporation	**Software Availability:** Nov-2008

Peak Optimization Flags (Continued)

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

470.lbm: -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch
  -auto-ilp32

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

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

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

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

437.leslie3d: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
  -no-prec-div -static -opt-malloc-options=3 -opt-prefetch

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

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

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

IBM Corporation

IBM System x iDataPlex dx340 (Intel Xeon X5260)

$SPECfp\_rate2006 = \quad 58.4$

$SPECfp\_rate\_base2006 = \quad 55.2$

Peak Optimization Flags (Continued)

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

481.wrf: `basepeak = yes`

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.20090805.00.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.20090805.00.xml`

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 03:07:20 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 5 August 2009.