



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI HA8000-bd (Intel Core i5-520E)

SPECfp®_rate2006 = 41.6

SPECfp_rate_base2006 = 40.0

CPU2006 license: 872

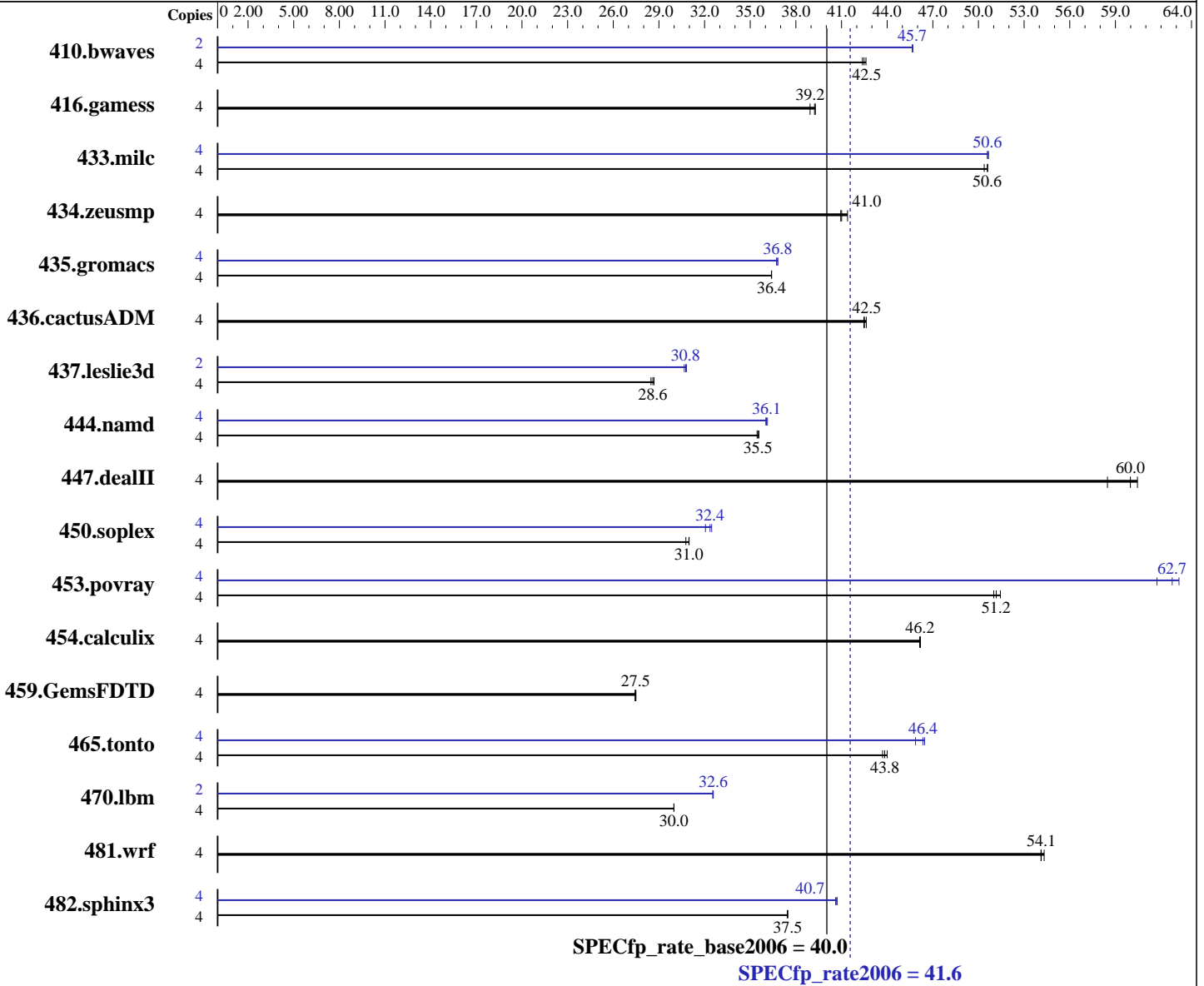
Test sponsor: HITACHI

Tested by: HITACHI

Test date: Jun-2010

Hardware Availability: Jul-2010

Software Availability: Dec-2009



Hardware

CPU Name: Intel Core i5-520E
 CPU Characteristics: Intel Turbo Boost Technology disabled
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip, 2 threads/core
 CPU(s) orderable: 1 chip
 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: Red Hat Enterprise Linux Server release 5.4, Advanced Platform, Kernel 2.6.18-164.el5 on an x86_64
 Compiler: Intel C++ Compiler 11.1 for Linux Build 20091012 Package ID: l_cproc_p_11.1.059
 Intel Fortran Compiler 11.1 for Linux Build 20091012 Package ID: l_cprof_p_11.1.059
 Auto Parallel: No
 File System: ext3

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 41.6

HA8000-bd (Intel Core i5-520E)

SPECfp_rate_base2006 = 40.0

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Jun-2010

Hardware Availability: Jul-2010

Software Availability: Dec-2009

L3 Cache: 3 MB I+D on chip per chip
 Other Cache: None
 Memory: 8 GB(2 x 4 GB PC3-8500U,
 2 rank, CL7)
 Disk Subsystem: 1 x 500 GB 7200 rpm SATA2
 Other Hardware: None

System State: Multi-user run level 3
 Base Pointers: 64-bit
 Peak Pointers: 32/64-bit
 Other Software: None

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	1283	42.4	1276	42.6	1280	42.5	2	595	45.7	595	45.7	595	45.7
416.gamess	4	2012	38.9	1997	39.2	1994	39.3	4	2012	38.9	1997	39.2	1994	39.3
433.milc	4	726	50.6	729	50.4	726	50.6	4	725	50.7	726	50.6	726	50.6
434.zeusmp	4	888	41.0	889	40.9	879	41.4	4	888	41.0	889	40.9	879	41.4
435.gromacs	4	785	36.4	785	36.4	785	36.4	4	778	36.7	776	36.8	776	36.8
436.cactusADM	4	1125	42.5	1121	42.6	1125	42.5	4	1125	42.5	1121	42.6	1125	42.5
437.leslie3d	4	1315	28.6	1311	28.7	1320	28.5	2	611	30.8	610	30.8	613	30.7
444.namd	4	904	35.5	902	35.6	905	35.4	4	888	36.1	890	36.0	889	36.1
447.dealII	4	757	60.4	783	58.5	763	60.0	4	757	60.4	783	58.5	763	60.0
450.soplex	4	1084	30.8	1077	31.0	1077	31.0	4	1041	32.1	1028	32.5	1031	32.4
453.povray	4	414	51.4	417	51.0	416	51.2	4	345	61.7	339	62.7	337	63.2
454.calculix	4	714	46.2	715	46.1	715	46.2	4	714	46.2	715	46.1	715	46.2
459.GemsFDTD	4	1547	27.4	1544	27.5	1546	27.5	4	1547	27.4	1544	27.5	1546	27.5
465.tonto	4	895	44.0	901	43.7	898	43.8	4	849	46.4	847	46.5	858	45.9
470.lbm	4	1833	30.0	1832	30.0	1833	30.0	2	844	32.6	845	32.5	844	32.6
481.wrf	4	826	54.1	823	54.3	826	54.1	4	826	54.1	823	54.3	826	54.1
482.sphinx3	4	2081	37.5	2083	37.4	2081	37.5	4	1917	40.7	1920	40.6	1915	40.7

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.
'/usr/bin/numactl' used to bind processes to CPUs

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

Base Compiler Invocation

C benchmarks:
icc -m64

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 41.6

HA8000-bd (Intel Core i5-520E)

SPECfp_rate_base2006 = 40.0

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Jun-2010

Hardware Availability: Jul-2010

Software Availability: Dec-2009

Base Compiler Invocation (Continued)

C++ benchmarks:

icpc -m64

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

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:

-xSSE4.2 -ipo -O3 -no-prec-div -static

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -static

Fortran benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -static

Benchmarks using both Fortran and C:

-xSSE4.2 -ipo -O3 -no-prec-div -static



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 41.6

HA8000-bd (Intel Core i5-520E)

SPECfp_rate_base2006 = 40.0

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Jun-2010

Hardware Availability: Jul-2010

Software Availability: Dec-2009

Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m64

482.sphinx3: icc -m32

C++ benchmarks (except as noted below):

icpc -m64

450.soplex: icpc -m32

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

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

470.lbm: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
 -opt-malloc-options=3 -ansi-alias -auto-ilp32

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 41.6

HA8000-bd (Intel Core i5-520E)

SPECfp_rate_base2006 = 40.0

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Jun-2010

Hardware Availability: Jul-2010

Software Availability: Dec-2009

Peak Optimization Flags (Continued)

482.sphinx3: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2

C++ benchmarks:

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

447.deallI: basepeak = yes

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

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

Fortran benchmarks:

410.bwaves: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

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

459.GemsFDTD: basepeak = yes

465.tonto: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-unroll4 -auto -inline-calloc -opt-malloc-options=3

Benchmarks using both Fortran and C:

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

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

481.wrf: basepeak = yes



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 41.6

HA8000-bd (Intel Core i5-520E)

SPECfp_rate_base2006 = 40.0

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Jun-2010

Hardware Availability: Jul-2010

Software Availability: Dec-2009

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.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 v1.1.
Report generated on Wed Jul 23 13:19:29 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 8 July 2010.