



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp[®]_rate2006 = 249

BladeSymphony BS320 (Intel Xeon X5680)

SPECfp_rate_base2006 = 243

CPU2006 license: 872

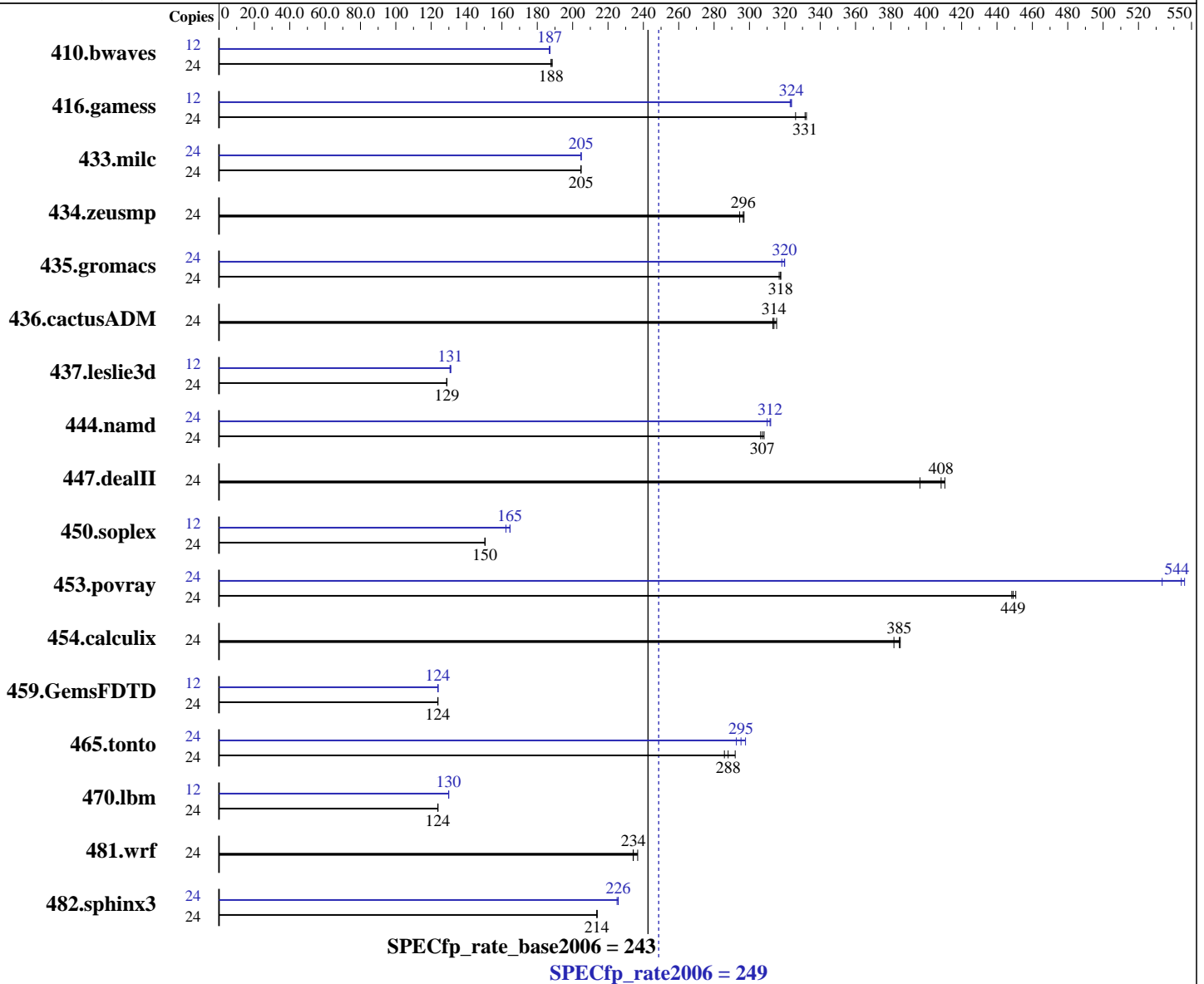
Test sponsor: HITACHI

Tested by: HITACHI

Test date: May-2010

Hardware Availability: May-2010

Software Availability: Dec-2009



Hardware

CPU Name: Intel Xeon X5680
 CPU Characteristics: Intel Turbo Boost Technology up to 3.60 GHz
 CPU MHz: 3333
 FPU: Integrated
 CPU(s) enabled: 12 cores, 2 chips, 6 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

Continued on next page

Software

Operating System: Red Hat Enterprise Linux Server release 5.4.3, Advanced Platform, Kernel 2.6.18-164.9.1.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 = 249

BladeSymphony BS320 (Intel Xeon X5680)

SPECfp_rate_base2006 = 243

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: May-2010

Hardware Availability: May-2010

Software Availability: Dec-2009

L3 Cache: 12 MB I+D on chip per chip
 Other Cache: None
 Memory: 48 GB(6 x 8 GB PC3-10600R,
 2 rank, CL9-9-9)
 Disk Subsystem: 2 x 146 GB 10000 rpm Fibre Channel
 RAID1 configuration
 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	24	1731	188	<u>1736</u>	<u>188</u>	1737	188	12	873	187	871	187	<u>872</u>	<u>187</u>
416.gamess	24	1441	326	<u>1418</u>	<u>331</u>	1414	332	12	727	323	726	324	<u>726</u>	<u>324</u>
433.milc	24	<u>1076</u>	<u>205</u>	1076	205	1077	205	24	1076	205	1075	205	<u>1076</u>	<u>205</u>
434.zeusmp	24	736	297	<u>737</u>	<u>296</u>	742	294	24	736	297	<u>737</u>	<u>296</u>	742	294
435.gromacs	24	<u>540</u>	<u>318</u>	539	318	541	317	24	<u>536</u>	<u>320</u>	538	318	536	320
436.cactusADM	24	916	313	<u>914</u>	<u>314</u>	909	315	24	916	313	<u>914</u>	<u>314</u>	909	315
437.leslie3d	24	1750	129	<u>1751</u>	<u>129</u>	1752	129	12	860	131	<u>863</u>	<u>131</u>	863	131
444.namd	24	<u>626</u>	<u>307</u>	628	306	624	308	24	617	312	621	310	<u>618</u>	<u>312</u>
447.dealII	24	669	411	<u>672</u>	<u>408</u>	693	396	24	669	411	<u>672</u>	<u>408</u>	693	396
450.soplex	24	<u>1331</u>	<u>150</u>	1329	151	1331	150	12	608	165	617	162	<u>608</u>	<u>165</u>
453.povray	24	<u>284</u>	<u>449</u>	285	448	283	451	24	<u>235</u>	<u>544</u>	239	533	234	546
454.calculix	24	519	382	514	385	<u>515</u>	<u>385</u>	24	519	382	514	385	<u>515</u>	<u>385</u>
459.GemsFDTD	24	2056	124	<u>2057</u>	<u>124</u>	2058	124	12	1027	124	1029	124	<u>1029</u>	<u>124</u>
465.tonto	24	<u>820</u>	<u>288</u>	826	286	809	292	24	<u>800</u>	<u>295</u>	793	298	807	293
470.lbm	24	2662	124	<u>2664</u>	<u>124</u>	2665	124	12	1269	130	1270	130	<u>1269</u>	<u>130</u>
481.wrf	24	1145	234	1132	237	<u>1144</u>	<u>234</u>	24	1145	234	1132	237	<u>1144</u>	<u>234</u>
482.sphinx3	24	2187	214	2189	214	<u>2189</u>	<u>214</u>	24	<u>2072</u>	<u>226</u>	2071	226	2078	225

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



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 249

BladeSymphony BS320 (Intel Xeon X5680)

SPECfp_rate_base2006 = 243

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: May-2010

Hardware Availability: May-2010

Software Availability: Dec-2009

Base Compiler Invocation

C benchmarks:

icc -m64

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 = 249

BladeSymphony BS320 (Intel Xeon X5680)

SPECfp_rate_base2006 = 243

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: May-2010

Hardware Availability: May-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 = 249

BladeSymphony BS320 (Intel Xeon X5680)

SPECfp_rate_base2006 = 243

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: May-2010

Hardware Availability: May-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: -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)
-unroll2 -Ob0 -ansi-alias -scalar-rep-

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: -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)
-unroll2 -Ob0

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

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 249

BladeSymphony BS320 (Intel Xeon X5680)

SPECfp_rate_base2006 = 243

CPU2006 license: 872

Test sponsor: HITACHI

Tested by: HITACHI

Test date: May-2010

Hardware Availability: May-2010

Software Availability: Dec-2009

Peak Optimization Flags (Continued)

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-ic11.1-linux64-revE.20100427.00.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.20100427.00.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 09:15:33 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 9 June 2010.