



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp[®]_rate2006 = 254

BladeSymphony BS320 (Intel Xeon X5675)

SPECfp_rate_base2006 = 248

CPU2006 license: 35

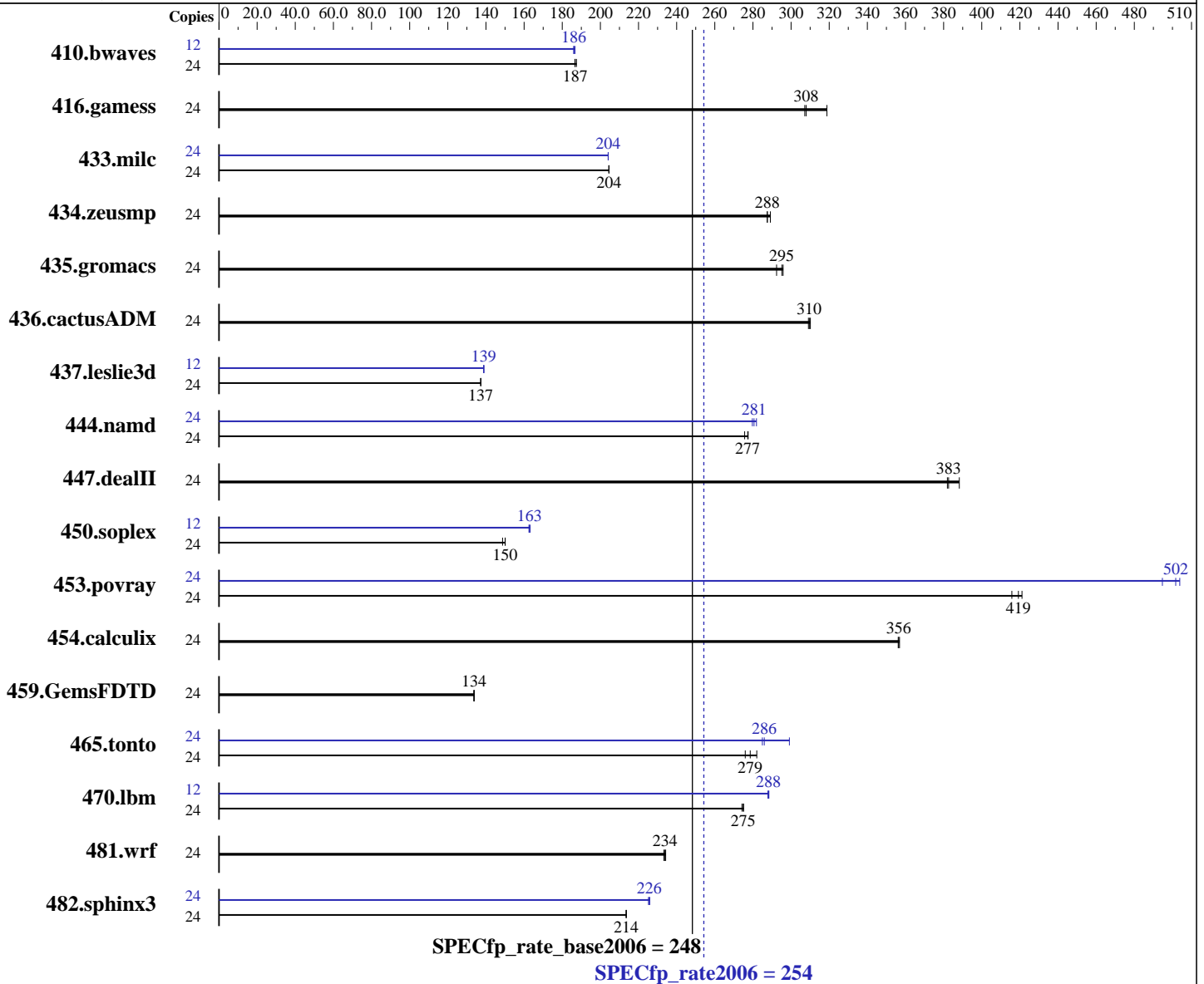
Test sponsor: HITACHI

Tested by: HITACHI

Test date: Mar-2011

Hardware Availability: Feb-2011

Software Availability: Jan-2011



Hardware

CPU Name: Intel Xeon X5675
 CPU Characteristics: Intel Turbo Boost Technology up to 3.46 GHz
 CPU MHz: 3066
 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 XE for Linux Version 12.0.2.137 Build 20110112
 Intel Fortran Compiler XE for Linux Version 12.0.2.137 Build 20110112
 Auto Parallel: No
 File System: ext3

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 254

BladeSymphony BS320 (Intel Xeon X5675)

SPECfp_rate_base2006 = 248

CPU2006 license: 35

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Mar-2011

Hardware Availability: Feb-2011

Software Availability: Jan-2011

L3 Cache: 12 MB I+D on chip per chip
 Other Cache: None
 Memory: 48 GB (6 x 8 GB 2Rx4 PC3-10600R-9, ECC, running at 1333 MHz)
 Disk Subsystem: 2 x 146 GB 10000 rpm SAS RAID1 configuration
 Other Hardware: None

System State: Run level 3 (multi-user)
 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	1740	187	<u>1746</u>	<u>187</u>	1748	187	12	877	186	873	187	<u>876</u>	<u>186</u>		
416.gamess	24	1530	307	1474	319	<u>1526</u>	<u>308</u>	24	1530	307	1474	319	<u>1526</u>	<u>308</u>		
433.milc	24	1077	205	<u>1077</u>	<u>204</u>	1078	204	24	<u>1079</u>	<u>204</u>	1079	204	1080	204		
434.zeusmp	24	<u>760</u>	<u>288</u>	755	289	760	288	24	<u>760</u>	<u>288</u>	755	289	760	288		
435.gromacs	24	586	292	579	296	<u>581</u>	<u>295</u>	24	586	292	579	296	<u>581</u>	<u>295</u>		
436.cactusADM	24	928	309	925	310	<u>926</u>	<u>310</u>	24	928	309	925	310	<u>926</u>	<u>310</u>		
437.leslie3d	24	1644	137	<u>1643</u>	<u>137</u>	1642	137	12	813	139	<u>812</u>	<u>139</u>	812	139		
444.namd	24	<u>694</u>	<u>277</u>	698	276	694	277	24	<u>686</u>	<u>281</u>	688	280	683	282		
447.dealII	24	719	382	<u>718</u>	<u>383</u>	707	388	24	719	382	<u>718</u>	<u>383</u>	707	388		
450.soplex	24	<u>1334</u>	<u>150</u>	1346	149	1333	150	12	<u>615</u>	<u>163</u>	616	163	613	163		
453.povray	24	303	421	307	416	<u>305</u>	<u>419</u>	24	<u>254</u>	<u>502</u>	253	504	258	495		
454.calculix	24	<u>555</u>	<u>356</u>	556	356	555	357	24	<u>555</u>	<u>356</u>	556	356	555	357		
459.GemsFDTD	24	<u>1904</u>	<u>134</u>	1902	134	1905	134	24	<u>1904</u>	<u>134</u>	1902	134	1905	134		
465.tonto	24	856	276	<u>848</u>	<u>279</u>	837	282	24	<u>826</u>	<u>286</u>	829	285	790	299		
470.lbm	24	1199	275	1203	274	<u>1200</u>	<u>275</u>	12	<u>572</u>	<u>288</u>	572	288	573	288		
481.wrf	24	1149	233	<u>1146</u>	<u>234</u>	1144	234	24	1149	233	<u>1146</u>	<u>234</u>	1144	234		
482.sphinx3	24	<u>2190</u>	<u>214</u>	2191	214	2190	214	24	2071	226	<u>2073</u>	<u>226</u>	2077	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
 Large pages were disabled for this run



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 254

BladeSymphony BS320 (Intel Xeon X5675)

SPECfp_rate_base2006 = 248

CPU2006 license: 35
Test sponsor: HITACHI
Tested by: HITACHI

Test date: Mar-2011
Hardware Availability: Feb-2011
Software Availability: Jan-2011

Platform Notes

BIOS Settings:
Data Reuse Optimization = Disabled

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 -ansi-alias

C++ benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -static -ansi-alias

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 254

BladeSymphony BS320 (Intel Xeon X5675)

SPECfp_rate_base2006 = 248

CPU2006 license: 35

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Mar-2011

Hardware Availability: Feb-2011

Software Availability: Jan-2011

Base Optimization Flags (Continued)

Fortran benchmarks:

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

Benchmarks using both Fortran and C:

`-xSSE4.2 -ipo -O3 -no-prec-div -static -ansi-alias`

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.deallI: `-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`



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 254

BladeSymphony BS320 (Intel Xeon X5675)

SPECfp_rate_base2006 = 248

CPU2006 license: 35

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Mar-2011

Hardware Availability: Feb-2011

Software Availability: Jan-2011

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) -prof-use(pass 2) -static -auto-ilp32

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

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

C++ benchmarks:

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

447.dealII: basepeak = yes

450.soplex: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -opt-malloc-options=3
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

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

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

437.leslie3d: -xSSE4.2 -ipo -O3 -no-prec-div
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

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: basepeak = yes

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp_rate2006 = 254

BladeSymphony BS320 (Intel Xeon X5675)

SPECfp_rate_base2006 = 248

CPU2006 license: 35

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Mar-2011

Hardware Availability: Feb-2011

Software Availability: Jan-2011

Peak Optimization Flags (Continued)

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.html>

<http://www.spec.org/cpu2006/flags/PlatformHitachi.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.xml>

<http://www.spec.org/cpu2006/flags/PlatformHitachi.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 19:34:33 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 12 April 2011.