



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp®2006 = **60.9**

BladeSymphony BS520A (Intel Xeon E5-2430L)

SPECfp_base2006 = **58.0**

CPU2006 license: 35

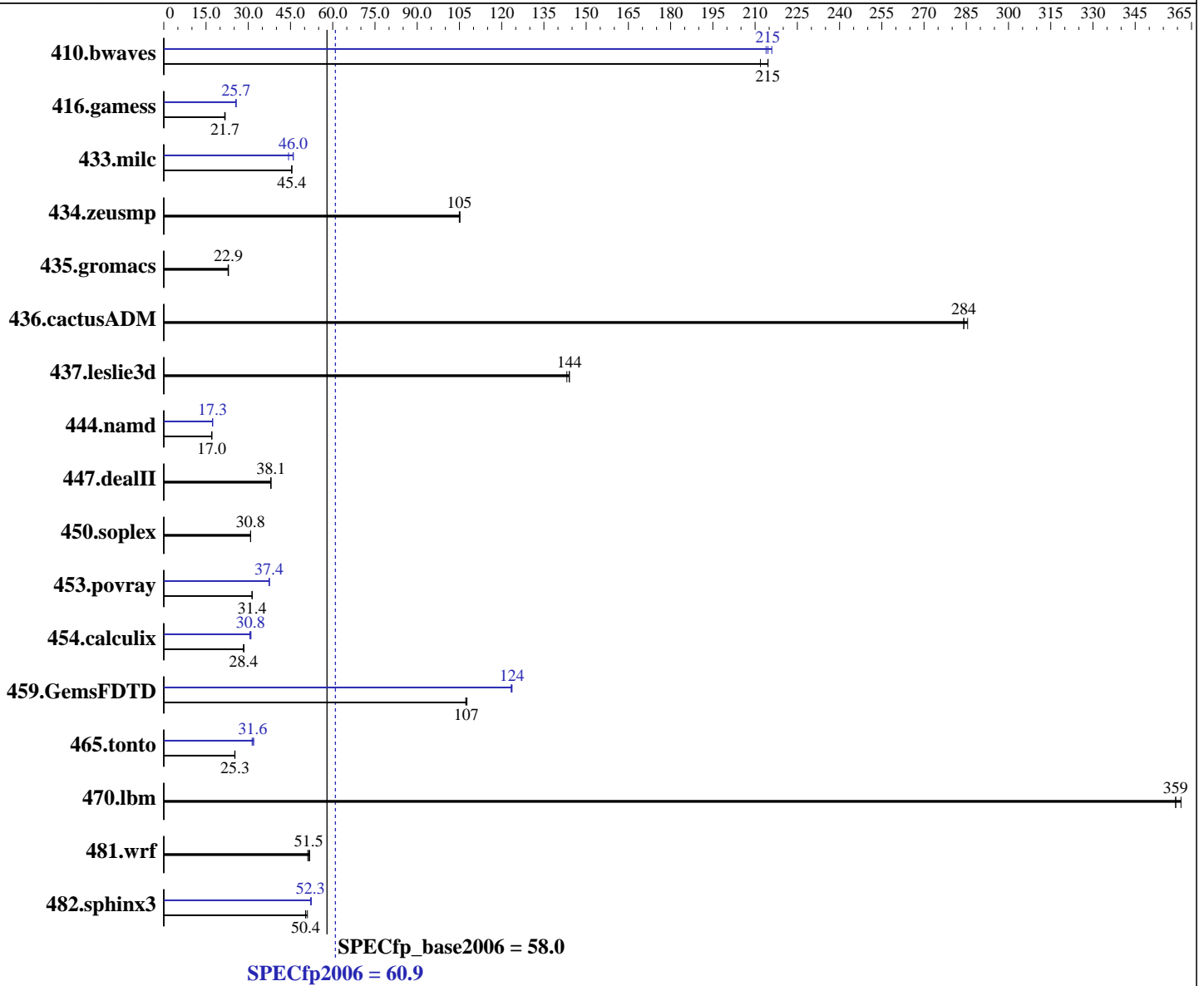
Test sponsor: HITACHI

Tested by: HITACHI

Test date: Jun-2012

Hardware Availability: Jun-2012

Software Availability: Feb-2012



Hardware

CPU Name: Intel Xeon E5-2430L
 CPU Characteristics: Intel Turbo Boost Technology up to 2.50 GHz
 CPU MHz: 2000
 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 6.2, Kernel 2.6.32-220.4.2.el6.x86_64
 Compiler: C/C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux;
 Fortran: Version 12.1.0.225 of Intel Fortran Studio XE for Linux
 Auto Parallel: Yes
 File System: ext4
 System State: Run level 3 (multi-user)

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp2006 = **60.9**

BladeSymphony BS520A (Intel Xeon E5-2430L)

SPECfp_base2006 = **58.0**

CPU2006 license: 35

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Jun-2012

Hardware Availability: Jun-2012

Software Availability: Feb-2012

L3 Cache: 15 MB I+D on chip per chip
Other Cache: None
Memory: 96 GB (12 x 8 GB 2Rx4 PC3L-10600R-9, ECC)
Disk Subsystem: 2 x 147 GB SAS, 15000 RPM RAID1 configuration
Other Hardware: None

Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other Software: None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	64.1	212	63.3	215	<u>63.3</u>	<u>215</u>	62.9	216	63.5	214	<u>63.3</u>	<u>215</u>
416.gamess	906	21.6	<u>900</u>	<u>21.7</u>	899	21.8	765	25.6	<u>763</u>	<u>25.7</u>	762	25.7
433.milc	<u>202</u>	<u>45.4</u>	202	45.5	202	45.4	<u>200</u>	<u>46.0</u>	207	44.3	200	46.0
434.zeusmp	<u>86.7</u>	<u>105</u>	86.7	105	86.5	105	<u>86.7</u>	<u>105</u>	86.7	105	86.5	105
435.gromacs	311	23.0	<u>311</u>	<u>22.9</u>	313	22.8	311	23.0	<u>311</u>	<u>22.9</u>	313	22.8
436.cactusADM	42.1	284	<u>42.1</u>	<u>284</u>	41.9	285	42.1	284	<u>42.1</u>	<u>284</u>	41.9	285
437.leslie3d	65.3	144	<u>65.3</u>	<u>144</u>	65.7	143	65.3	144	<u>65.3</u>	<u>144</u>	65.7	143
444.namd	470	17.1	471	17.0	<u>471</u>	<u>17.0</u>	<u>463</u>	<u>17.3</u>	463	17.3	463	17.3
447.dealII	<u>301</u>	<u>38.1</u>	302	37.9	300	38.1	<u>301</u>	<u>38.1</u>	302	37.9	300	38.1
450.soplex	270	30.9	271	30.8	<u>270</u>	<u>30.8</u>	270	30.9	271	30.8	<u>270</u>	<u>30.8</u>
453.povray	170	31.3	<u>169</u>	<u>31.4</u>	169	31.4	142	37.5	<u>142</u>	<u>37.4</u>	142	37.4
454.calculix	292	28.3	<u>291</u>	<u>28.4</u>	290	28.5	270	30.6	<u>268</u>	<u>30.8</u>	266	31.0
459.GemsFDTD	98.5	108	<u>98.7</u>	<u>107</u>	98.9	107	86.0	123	85.8	124	<u>85.8</u>	<u>124</u>
465.tonto	391	25.2	389	25.3	<u>389</u>	<u>25.3</u>	<u>311</u>	<u>31.6</u>	314	31.4	308	31.9
470.lbm	38.2	359	<u>38.2</u>	<u>359</u>	38.0	361	38.2	359	<u>38.2</u>	<u>359</u>	38.0	361
481.wrf	216	51.8	<u>217</u>	<u>51.5</u>	218	51.1	216	51.8	<u>217</u>	<u>51.5</u>	218	51.1
482.sphinx3	<u>387</u>	<u>50.4</u>	387	50.4	382	51.0	<u>373</u>	<u>52.3</u>	373	52.2	372	52.4

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

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

Sysinfo program /home/cpu2006/config/sysinfo.rev6800
\$Rev: 6800 \$ \$Date:: 2011-10-11 #\$ 6f2ebdff5032aaa42e583f96b07f99d3
running on localhost.localdomain Tue Jun 19 23:49:32 2012

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
<http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E5-2430L 0 @ 2.00GHz
Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp2006 = 60.9

BladeSymphony BS520A (Intel Xeon E5-2430L)

SPECfp_base2006 = 58.0

CPU2006 license: 35

Test sponsor: HITACHI

Tested by: HITACHI

Test date: Jun-2012

Hardware Availability: Jun-2012

Software Availability: Feb-2012

Platform Notes (Continued)

```

2 "physical id"s (chips)
24 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
following excerpts from /proc/cpuinfo might not be reliable. Use with
caution.)
cpu cores : 6
siblings  : 12
physical 0: cores 0 1 2 3 4 5
physical 1: cores 0 1 2 3 4 5
cache size : 15360 KB

From /proc/meminfo
MemTotal:      99044504 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.2 (Santiago)

From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

uname -a:
Linux localhost.localdomain 2.6.32-220.4.2.el6.x86_64 #1 SMP Mon Feb 6
16:39:28 EST 2012 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Jun 19 23:46

(End of data from sysinfo program)

```

General Notes

Environment variables set by runspec before the start of the run:

KMP_AFFINITY = "granularity=fine,compact,1,0"

LD_LIBRARY_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64"

OMP_NUM_THREADS = "12"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5

Transparent Huge Pages disabled with:

echo never > /sys/kernel/mm/redhat_transparent_hugepage/enabled

HITACHI BladeSymphony BS520A and HITACHI Compute Blade 520A are electronically equivalent. The results have been measured on a HITACHI BladeSymphony BS520A.



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp2006 = 60.9

BladeSymphony BS520A (Intel Xeon E5-2430L)

SPECfp_base2006 = 58.0

CPU2006 license: 35

Test date: Jun-2012

Test sponsor: HITACHI

Hardware Availability: Jun-2012

Tested by: HITACHI

Software Availability: Feb-2012

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:

-xAVX -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
-ansi-alias

C++ benchmarks:

-xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -ansi-alias

Fortran benchmarks:

-xAVX -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:

-xAVX -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
-ansi-alias



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp2006 = 60.9

BladeSymphony BS520A (Intel Xeon E5-2430L)

SPECfp_base2006 = 58.0

CPU2006 license: 35

Test date: Jun-2012

Test sponsor: HITACHI

Hardware Availability: Jun-2012

Tested by: HITACHI

Software Availability: Feb-2012

Peak Compiler Invocation

C benchmarks:

icc -m64

C++ benchmarks:

icpc -m64

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

433.milc: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -static -auto-ilp32
-ansi-alias

470.lbm: basepeak = yes

482.sphinx3: -xAVX -ipo -O3 -no-prec-div -unroll2 -ansi-alias
-parallel

C++ benchmarks:

444.namd: -xAVX(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.dealIII: basepeak = yes

450.soplex: basepeak = yes

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

Fortran benchmarks:

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

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

HITACHI

SPECfp2006 = 60.9

BladeSymphony BS520A (Intel Xeon E5-2430L)

SPECfp_base2006 = 58.0

CPU2006 license: 35

Test date: Jun-2012

Test sponsor: HITACHI

Hardware Availability: Jun-2012

Tested by: HITACHI

Software Availability: Feb-2012

Peak Optimization Flags (Continued)

416.gamess: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -unroll2
-inline-level=0 -scalar-rep- -static

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -unroll2
-inline-level=0 -opt-prefetch -parallel

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

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: basepeak = yes

454.calculix: -xAVX -ipo -O3 -no-prec-div -auto-ilp32 -ansi-alias

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-ic12.1-official-linux64.20111122.html>

<http://www.spec.org/cpu2006/flags/PlatformHitachi-V1.2.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml>

<http://www.spec.org/cpu2006/flags/PlatformHitachi-V1.2.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 v1.2.
Report generated on Thu Jul 24 12:02:12 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 14 August 2012.