



# SPEC<sup>®</sup> CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SPECfp<sup>®</sup>2006 = 43.4

SuperServer 1017C-TF (X9SCL-F, Intel G850)

SPECfp\_base2006 = 42.5

CPU2006 license: 001176

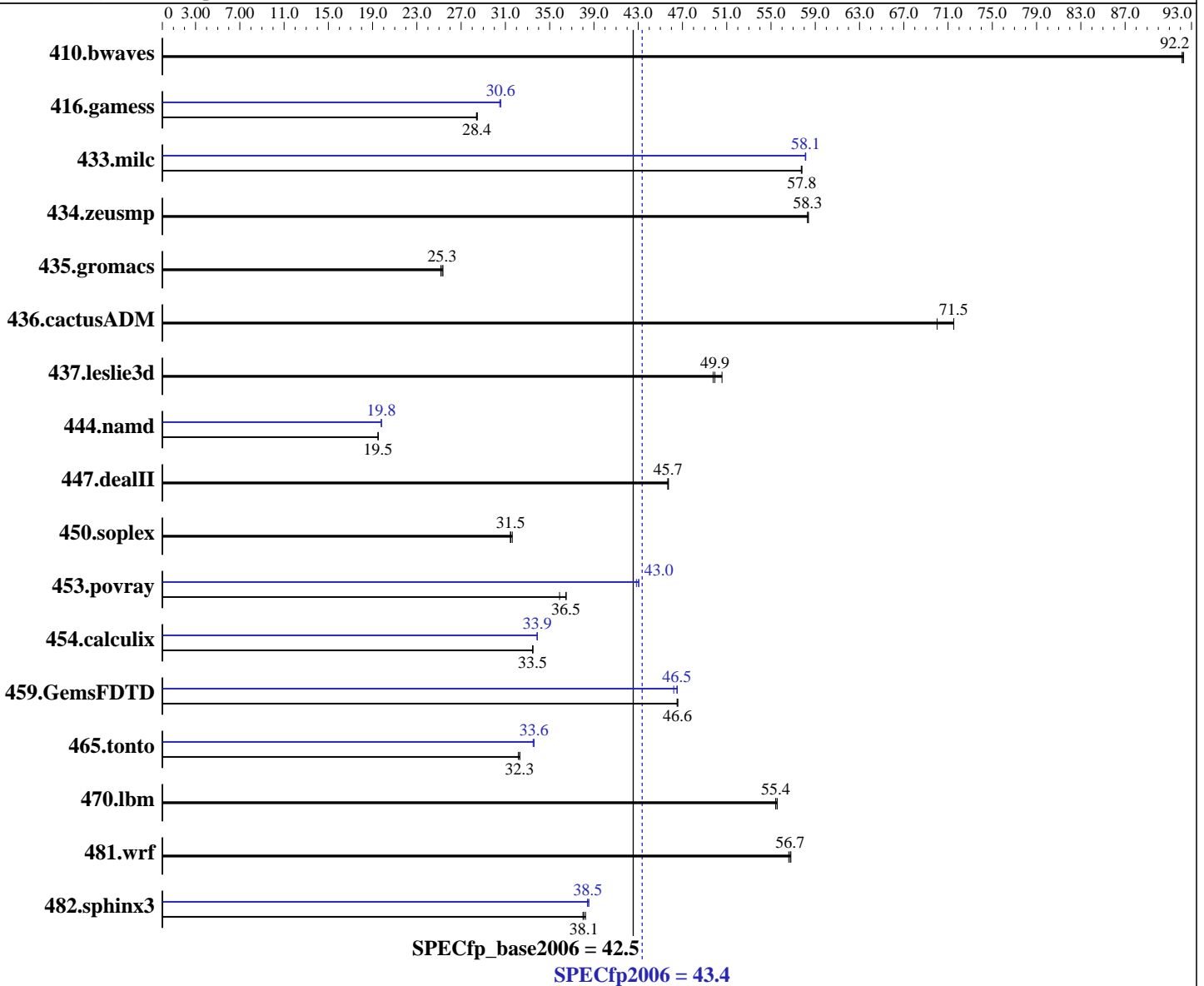
Test sponsor: Supermicro

Tested by: Supermicro

Test date: Apr-2012

Hardware Availability: Apr-2011

Software Availability: Oct-2011



### Hardware

CPU Name: Intel Pentium G850  
 CPU Characteristics:  
 CPU MHz: 2900  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip  
 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 6.1, Kernel 2.6.32-131.0.15.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

## Supermicro

SPECfp2006 = 43.4

SuperServer 1017C-TF (X9SCL-F, Intel G850)

SPECfp\_base2006 = 42.5

CPU2006 license: 001176

Test date: Apr-2012

Test sponsor: Supermicro

Hardware Availability: Apr-2011

Tested by: Supermicro

Software Availability: Oct-2011

L3 Cache: 3 MB I+D on chip per chip  
Other Cache: None  
Memory: 8 GB (2 x 4 GB 2Rx8 PC3-10600E-9, ECC)  
Disk Subsystem: 1 x 500 GB SATA II, 7200 RPM  
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	147	92.2	147	92.3	<u>147</u>	<u>92.2</u>	147	92.2	147	92.3	<u>147</u>	<u>92.2</u>
416.gamess	690	28.4	<u>689</u>	<u>28.4</u>	688	28.5	642	30.5	640	30.6	<u>640</u>	<u>30.6</u>
433.milc	<u>159</u>	<u>57.8</u>	159	57.8	159	57.7	<u>158</u>	<u>58.1</u>	158	58.1	158	58.1
434.zeusmp	156	58.4	<u>156</u>	<u>58.3</u>	156	58.3	156	58.4	<u>156</u>	<u>58.3</u>	156	58.3
435.gromacs	282	25.4	<u>282</u>	<u>25.3</u>	284	25.2	282	25.4	<u>282</u>	<u>25.3</u>	284	25.2
436.cactusADM	<u>167</u>	<u>71.5</u>	171	70.0	167	71.5	<u>167</u>	<u>71.5</u>	171	70.0	167	71.5
437.leslie3d	186	50.6	189	49.8	<u>188</u>	<u>49.9</u>	186	50.6	189	49.8	<u>188</u>	<u>49.9</u>
444.namd	411	19.5	411	19.5	<u>411</u>	<u>19.5</u>	405	19.8	<u>405</u>	<u>19.8</u>	405	19.8
447.dealII	<u>250</u>	<u>45.7</u>	250	45.7	250	45.7	<u>250</u>	<u>45.7</u>	250	45.7	250	45.7
450.soplex	265	31.4	<u>265</u>	<u>31.5</u>	264	31.6	265	31.4	<u>265</u>	<u>31.5</u>	264	31.6
453.povray	146	36.5	<u>146</u>	<u>36.5</u>	148	35.9	124	42.8	<u>124</u>	<u>43.0</u>	124	43.1
454.calculix	246	33.5	247	33.5	<u>247</u>	<u>33.5</u>	243	33.9	<u>243</u>	<u>33.9</u>	244	33.9
459.GemsFDTD	228	46.6	<u>228</u>	<u>46.6</u>	228	46.5	230	46.2	228	46.5	<u>228</u>	<u>46.5</u>
465.tonto	305	32.3	306	32.2	<u>305</u>	<u>32.3</u>	293	33.6	294	33.5	<u>293</u>	<u>33.6</u>
470.lbm	<u>248</u>	<u>55.4</u>	248	55.4	247	55.6	<u>248</u>	<u>55.4</u>	248	55.4	247	55.6
481.wrf	197	56.6	<u>197</u>	<u>56.7</u>	197	56.8	197	56.6	<u>197</u>	<u>56.7</u>	197	56.8
482.sphinx3	513	38.0	510	38.2	<u>512</u>	<u>38.1</u>	506	38.5	507	38.4	<u>507</u>	<u>38.5</u>

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"  
Transparent Huge Pages enabled with:  
echo always > /sys/kernel/mm/redhat\_transparent\_hugepage/enabled

## General Notes

Environment variables set by runspec before the start of the run:  
KMP\_AFFINITY = "granularity=fine,scatter"  
LD\_LIBRARY\_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64"  
OMP\_NUM\_THREADS = "2"

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



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Supermicro**

**SPECfp2006 = 43.4**

**SuperServer 1017C-TF (X9SCL-F, Intel G850)**

**SPECfp\_base2006 = 42.5**

**CPU2006 license:** 001176  
**Test sponsor:** Supermicro  
**Tested by:** Supermicro

**Test date:** Apr-2012  
**Hardware Availability:** Apr-2011  
**Software Availability:** Oct-2011

## 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 -parallel -opt-prefetch  
-ansi-alias

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

Fortran benchmarks:  
-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:  
-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch  
-ansi-alias



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Supermicro**

**SPECfp2006 = 43.4**

SuperServer 1017C-TF (X9SCL-F, Intel G850)

**SPECfp\_base2006 = 42.5**

**CPU2006 license:** 001176  
**Test sponsor:** Supermicro  
**Tested by:** Supermicro

**Test date:** Apr-2012  
**Hardware Availability:** Apr-2011  
**Software Availability:** Oct-2011

## 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: -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  
-ansi-alias

470.lbm: basepeak = yes

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

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.dealIII: basepeak = yes

450.soplex: basepeak = yes

453.povray: -xSSE4.2(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: basepeak = yes

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SPECfp2006 = 43.4

SuperServer 1017C-TF (X9SCL-F, Intel G850)

SPECfp\_base2006 = 42.5

CPU2006 license: 001176

Test date: Apr-2012

Test sponsor: Supermicro

Hardware Availability: Apr-2011

Tested by: Supermicro

Software Availability: Oct-2011

## Peak Optimization Flags (Continued)

416.gamess: -xSSE4.2(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: -xSSE4.2(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: -xSSE4.2(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: -xSSE4.2 -ipo -O3 -no-prec-div -auto-ilp32 -ansi-alias

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

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.2.  
Report generated on Thu Jul 24 04:33:19 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 6 June 2012.