



# SPEC<sup>®</sup> CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 1018D-73MTF  
(X10SL7-F, Intel Xeon E3-1240 v3)

SPECfp<sup>®</sup>2006 = 73.4

SPECfp\_base2006 = 71.7

CPU2006 license: 001176

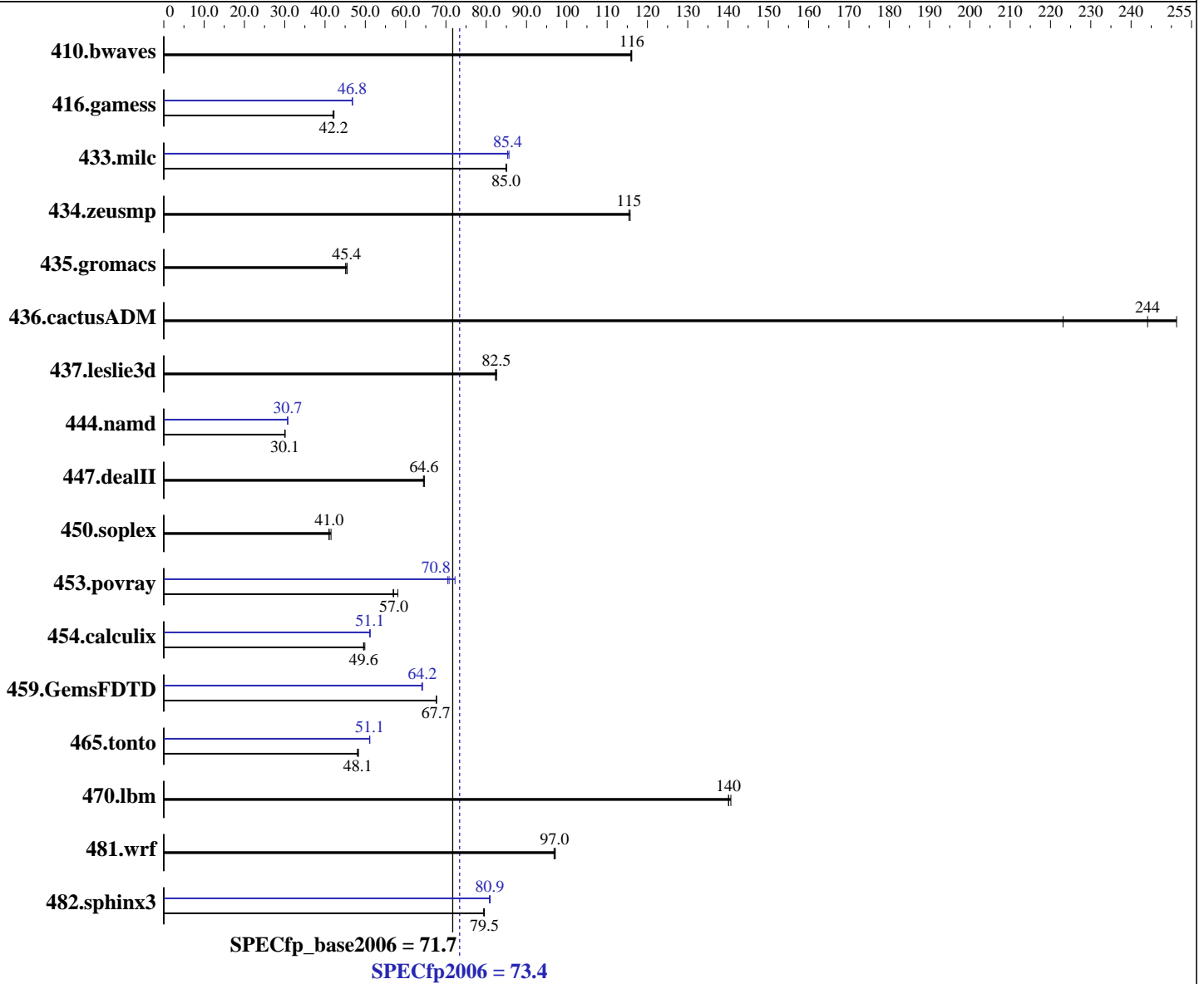
Test sponsor: Supermicro

Tested by: Supermicro

Test date: Jun-2013

Hardware Availability: Jun-2013

Software Availability: May-2013



### Hardware

CPU Name: Intel Xeon E3-1240 v3  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.80 GHz  
 CPU MHz: 3400  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 1 chip, 4 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 6.4 (Santiago)  
 Kernel 2.6.32-358.el6.x86\_64  
 Compiler: C/C++: Version 13.1.1.163 of Intel C++ Studio XE for Linux;  
 Fortran: Version 13.1.1.163 of Intel Fortran Studio XE for Linux  
 Auto Parallel: Yes  
 File System: ext4

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 1018D-73MTF  
(X10SL7-F, Intel Xeon E3-1240 v3)

SPECfp2006 = **73.4**

SPECfp\_base2006 = **71.7**

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Jun-2013

Hardware Availability: Jun-2013

Software Availability: May-2013

L3 Cache: 8 MB I+D on chip per chip  
Other Cache: None  
Memory: 16 GB (2 x 8 GB 2Rx8 PC3-12800E-11, ECC)  
Disk Subsystem: 2 x 600 GB SAS 6Gbps, RAID 1, 10000 RPM  
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					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	<b>117</b>	<b>116</b>	117	116	117	116	<b>117</b>	<b>116</b>	117	116	117	116
416.gamess	466	42.0	464	42.2	<b>464</b>	<b>42.2</b>	419	46.8	418	46.8	<b>418</b>	<b>46.8</b>
433.milc	<b>108</b>	<b>85.0</b>	108	85.1	108	84.9	107	85.7	<b>108</b>	<b>85.4</b>	108	85.3
434.zeusmp	78.6	116	<b>78.8</b>	<b>115</b>	78.8	115	78.6	116	<b>78.8</b>	<b>115</b>	78.8	115
435.gromacs	157	45.5	<b>157</b>	<b>45.4</b>	158	45.1	157	45.5	<b>157</b>	<b>45.4</b>	158	45.1
436.cactusADM	53.6	223	47.6	251	<b>49.0</b>	<b>244</b>	53.6	223	47.6	251	<b>49.0</b>	<b>244</b>
437.leslie3d	114	82.3	<b>114</b>	<b>82.5</b>	114	82.6	114	82.3	<b>114</b>	<b>82.5</b>	114	82.6
444.namd	267	30.1	267	30.1	<b>267</b>	<b>30.1</b>	261	30.7	261	30.7	<b>261</b>	<b>30.7</b>
447.dealII	178	64.4	<b>177</b>	<b>64.6</b>	177	64.6	178	64.4	<b>177</b>	<b>64.6</b>	177	64.6
450.soplex	<b>203</b>	<b>41.0</b>	201	41.5	203	41.0	<b>203</b>	<b>41.0</b>	201	41.5	203	41.0
453.povray	93.5	56.9	91.6	58.1	<b>93.3</b>	<b>57.0</b>	73.6	72.3	75.5	70.4	<b>75.2</b>	<b>70.8</b>
454.calculix	165	49.9	166	49.6	<b>166</b>	<b>49.6</b>	161	51.1	<b>161</b>	<b>51.1</b>	161	51.2
459.GemsFDTD	157	67.6	157	67.7	<b>157</b>	<b>67.7</b>	<b>165</b>	<b>64.2</b>	166	64.0	165	64.2
465.tonto	204	48.3	<b>205</b>	<b>48.1</b>	205	48.1	193	51.1	193	51.1	<b>193</b>	<b>51.1</b>
470.lbm	98.1	140	<b>98.0</b>	<b>140</b>	97.7	141	98.1	140	<b>98.0</b>	<b>140</b>	97.7	141
481.wrf	<b>115</b>	<b>97.0</b>	115	96.8	115	97.1	<b>115</b>	<b>97.0</b>	115	96.8	115	97.1
482.sphinx3	245	79.5	246	79.3	<b>245</b>	<b>79.5</b>	241	81.0	<b>241</b>	<b>80.9</b>	241	80.8

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"

## General Notes

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

```
LD_LIBRARY_PATH = "/home/cpu2006_IC13.1/libs/32:/home/cpu2006_IC13.1/libs/64:/home/cpu2006_IC13.1/sh"
OMP_NUM_THREADS = "4"
```

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

Transparent Huge Pages enabled with:

```
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
```

runspec command invoked through numactl i.e.:

```
numactl --interleave=all runspec <etc>
```



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 1018D-73MTF  
(X10SL7-F, Intel Xeon E3-1240 v3)

SPECfp2006 = 73.4

SPECfp\_base2006 = 71.7

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

**Test date:** Jun-2013  
**Hardware Availability:** Jun-2013  
**Software Availability:** May-2013

## 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:  
-xCORE-AVX2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch  
-ansi-alias

C++ benchmarks:  
-xCORE-AVX2 -ipo -O3 -no-prec-div -static -opt-prefetch -ansi-alias

Fortran benchmarks:  
-xCORE-AVX2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:  
-xCORE-AVX2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch  
-ansi-alias



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 1018D-73MTF  
(X10SL7-F, Intel Xeon E3-1240 v3)

SPECfp2006 = 73.4

SPECfp\_base2006 = 71.7

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

Test date: Jun-2013  
Hardware Availability: Jun-2013  
Software Availability: May-2013

## 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: -xCORE-AVX2(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: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -ansi-alias  
-parallel

C++ benchmarks:

444.namd: -xCORE-AVX2(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: -xCORE-AVX2(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:

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 1018D-73MTF  
(X10SL7-F, Intel Xeon E3-1240 v3)

SPECfp2006 = 73.4

SPECfp\_base2006 = 71.7

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Jun-2013

Hardware Availability: Jun-2013

Software Availability: May-2013

## Peak Optimization Flags (Continued)

410.bwaves: basepeak = yes

416.gamess: -xCORE-AVX2(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: -xCORE-AVX2(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: -xCORE-AVX2(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: -xCORE-AVX2 -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-ic13-official-linux64.20130702.html>

<http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revB.20130719.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.20130702.xml>

<http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revB.20130719.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 16:42:13 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 19 July 2013.