SPEC® CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro
(Test Sponsor: Intel Corporation)

Supermicro X7DB8+ (Intel Xeon processor E5405, 2.00 GHz)

$SPECfp^{®}2006 = $ 18.2

$SPECfp_base2006 = $ 15.8

CPU2006 license: 13		**Test date:**	Nov-2007
Test sponsor:	Intel Corporation	**Hardware Availability:**	Nov-2007
Tested by:	Intel Corporation	**Software Availability:**	Nov-2007

Results chart with scale 0 3.00 7.00 11.0 15.0 19.0 23.0 27.0 31.0 35.0 39.0 43.0 47.0 51.0 55.0 59.0 63.0 67.0 71.0 75.0 79.0 83.0 87.0 92.0

- 410.bwaves: 32.3 / 31.8
- 416.gamess: 15.0 / 14.5
- 433.milc: 9.79 / 10.1
- 434.zeusmp: 12.8 / 13.2
- 435.gromacs: 12.9 / 13.0
- 436.cactusADM: 90.9 / 36.2
- 437.leslie3d: 16.6
- 444.namd: 10.7 / 10.6
- 447.dealII: 21.0 / 19.7
- 450.soplex: 13.2 / 11.8
- 453.povray: 20.0 / 16.9
- 454.calculix: 16.4 / 11.0
- 459.GemsFDTD: 18.4 / 17.9
- 465.tonto: 15.6 / 14.8
- 470.lbm: 20.9 / 10.1
- 481.wrf: 18.2 / 19.2
- 482.sphinx3: 20.9 / 20.5

SPECfp_base2006 = 15.8

SPECfp2006 = 18.2

Hardware
CPU Name:	Intel Xeon E5405
CPU Characteristics:	Quad Core, 2.00 GHz
CPU MHz:	2000
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	12 MB I+D on chip per chip, 6 MB shared / 2 cores

Continued on next page

Software
Operating System:	64-Bit SUSE LINUX Enterprise Server 10 SP1 RC1, Kernel linux-cbgm 2.6.16.43-0.5-smp for x86_64
Compiler:	Intel C++ and Fortran Compiler 10.1 for Linux Build 20070913 Package ID: l_cc_p_10.1.008, l_fc_p_10.1.008
Auto Parallel:	Yes
File System:	ReiserFS
System State:	Multi-user, run level 3

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro
(Test Sponsor: Intel Corporation)

Supermicro X7DB8+ (Intel Xeon processor E5405, 2.00 GHz)

$SPECfp2006 =$　18.2

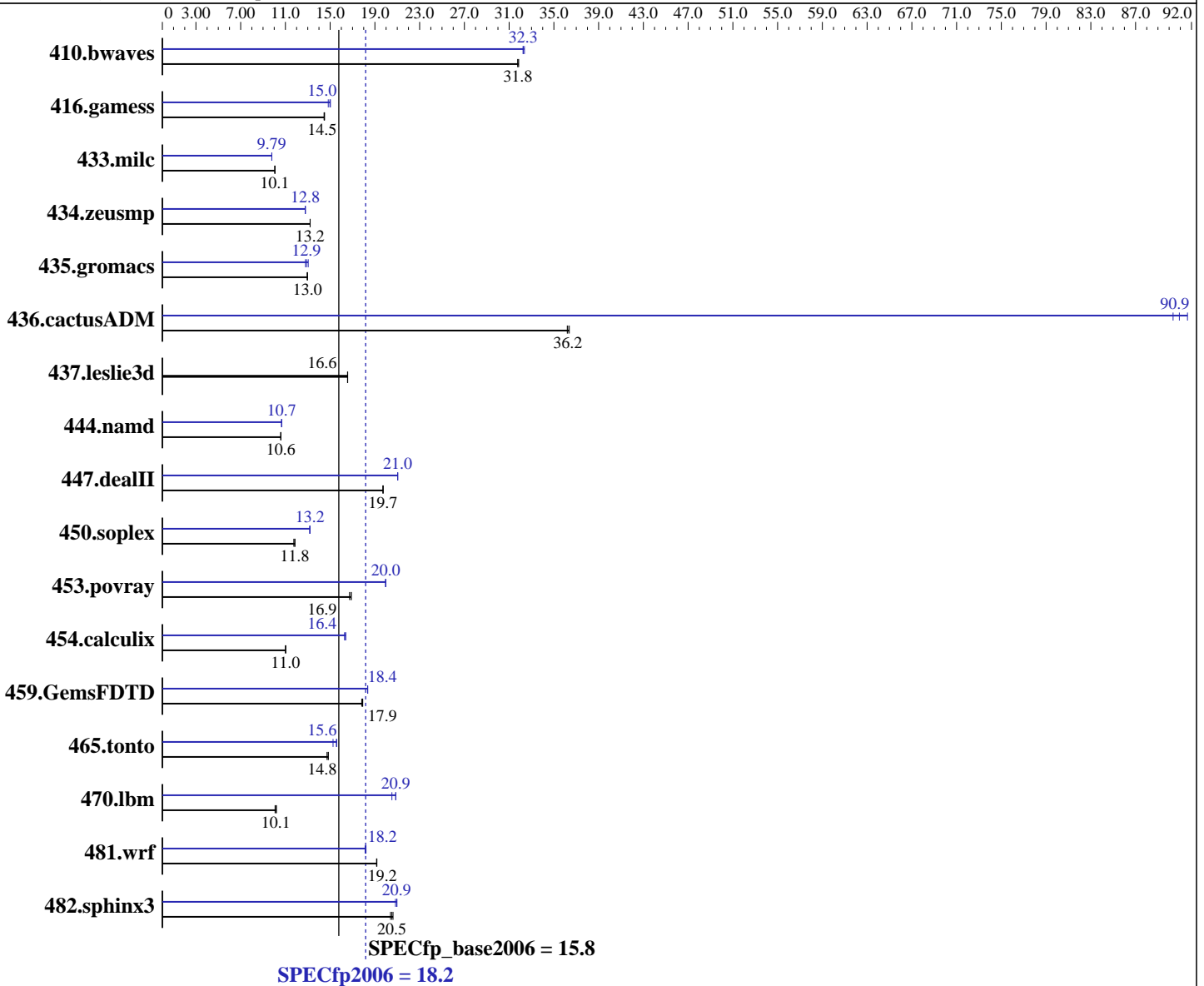$SPECfp\_base2006 =$　15.8

CPU2006 license: 13　　　　　　　　　　　　　　　　　　　　**Test date:** Nov-2007
Test sponsor: Intel Corporation　　　　　　　　　　　　　**Hardware Availability:** Nov-2007
Tested by: Intel Corporation　　　　　　　　　　　　　　**Software Availability:** Nov-2007

L3 Cache:	None
Other Cache:	None
Memory:	16 GB (8 * 2GB DDR2 5300F, 2 rank, CL5-5-5, ECC)
Disk Subsystem:	1x73GB Seagate ST37330LC SCSI 10K RPM
Other Hardware:	None

Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	Binutils 2.17.50.0.15

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	428	31.8	427	31.9	**428**	**31.8**	420	32.4	421	32.3	**421**	**32.3**
416.gamess	**1352**	**14.5**	1351	14.5	1355	14.5	**1307**	**15.0**	1320	14.8	1303	15.0
433.milc	**912**	**10.1**	912	10.1	913	10.1	939	9.78	**938**	**9.79**	938	9.79
434.zeusmp	689	13.2	689	13.2	**689**	**13.2**	**712**	**12.8**	712	12.8	712	12.8
435.gromacs	552	12.9	**551**	**13.0**	550	13.0	558	12.8	**554**	**12.9**	548	13.0
436.cactusADM	330	36.2	329	36.4	**330**	**36.2**	132	90.4	130	91.6	**131**	**90.9**
437.leslie3d	567	16.6	**568**	**16.6**	568	16.6	567	16.6	**568**	**16.6**	568	16.6
444.namd	**757**	**10.6**	758	10.6	757	10.6	753	10.7	752	10.7	**752**	**10.7**
447.dealII	580	19.7	580	19.7	**580**	**19.7**	544	21.0	544	21.0	**544**	**21.0**
450.soplex	704	11.9	**705**	**11.8**	710	11.8	632	13.2	633	13.2	**632**	**13.2**
453.povray	318	16.7	315	16.9	**315**	**16.9**	266	20.0	267	20.0	**266**	**20.0**
454.calculix	**749**	**11.0**	749	11.0	749	11.0	504	16.4	507	16.3	**504**	**16.4**
459.GemsFDTD	592	17.9	**593**	**17.9**	595	17.8	578	18.4	578	18.3	**578**	**18.4**
465.tonto	664	14.8	**664**	**14.8**	669	14.7	631	15.6	645	15.3	**632**	**15.6**
470.lbm	1364	10.1	**1354**	**10.1**	1347	10.2	**659**	**20.9**	659	20.9	670	20.5
481.wrf	582	19.2	583	19.2	**583**	**19.2**	616	18.1	614	18.2	**614**	**18.2**
482.sphinx3	956	20.4	945	20.6	**950**	**20.5**	935	20.8	929	21.0	**930**	**20.9**

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

General Notes

```
   Bios settings:
   Hardware Prefetcher:      Enabled
   Adjacent Sector Prefetch: Enabled
    All benchmarks compiled in 64-bit mode except 450.soplex,
    470.lbm and 482.sphinx3, at peak, are compiled in 32-bit mode
```

Base Compiler Invocation

C benchmarks:
```
    icc
```

Supermicro
(Test Sponsor: Intel Corporation)

Supermicro X7DB8+ (Intel Xeon processor E5405, 2.00 GHz)

$SPECfp2006 =$ 18.2

$SPECfp\_base2006 =$ 15.8

CPU2006 license: 13		**Test date:**	Nov-2007
Test sponsor:	Intel Corporation	**Hardware Availability:**	Nov-2007
Tested by:	Intel Corporation	**Software Availability:**	Nov-2007

Base Compiler Invocation (Continued)

C++ benchmarks:
```
icpc
```

Fortran benchmarks:
```
ifort
```

Benchmarks using both Fortran and C:
```
icc ifort
```

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:
```
-fast -parallel
```

C++ benchmarks:
```
-fast -parallel
```

Fortran benchmarks:
```
-fast -parallel
```

Benchmarks using both Fortran and C:
```
-fast -parallel
```

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro
(Test Sponsor: Intel Corporation)

Supermicro X7DB8+ (Intel Xeon processor E5405, 2.00 GHz)

SPECfp2006 =   18.2

SPECfp_base2006 =   15.8

CPU2006 license: 13

Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Nov-2007

Hardware Availability: Nov-2007

Software Availability: Nov-2007

Peak Compiler Invocation

C benchmarks (except as noted below):
```
/opt/intel/cc/10.1.008/bin/icc -L/opt/intel/cc/10.1.008/lib
-I/opt/intel/cc/10.1.008/include
```

433.milc: `icc`

C++ benchmarks (except as noted below):
```
icpc
```

450.soplex: `/opt/intel/cc/10.1.008/bin/icpc -L/opt/intel/cc/10.1.008/lib`
`-I/opt/intel/cc/10.1.008/include`

Fortran benchmarks:
```
ifort
```

Benchmarks using both Fortran and C:
```
icc ifort
```

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`
481.wrf: `-DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX`

Peak Optimization Flags

C benchmarks:

433.milc: `-prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias`
`-auto-ilp32`

470.lbm: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2`
`-scalar-rep- -prefetch -opt-malloc-options=3`

Continued on next page

Supermicro

(Test Sponsor: Intel Corporation)

Supermicro X7DB8+ (Intel Xeon processor E5405, 2.00 GHz)

$SPECfp2006 =$ 18.2

$SPECfp\_base2006 =$ 15.8

CPU2006 license: 13	**Test date:** Nov-2007
Test sponsor: Intel Corporation	**Hardware Availability:** Nov-2007
Tested by: Intel Corporation	**Software Availability:** Nov-2007

Peak Optimization Flags (Continued)

482.sphinx3: `-fast -unroll2`

C++ benchmarks:

444.namd: `-prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias -auto-ilp32`

447.dealII: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -ansi-alias -scalar-rep-`

450.soplex: `-prof-gen(pass 1) -prof-use(pass 2) -fast -opt-malloc-options=3`

453.povray: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4 -ansi-alias`

Fortran benchmarks:

410.bwaves: `-fast -prefetch -parallel`

416.gamess: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0 -ansi-alias -scalar-rep-`

434.zeusmp: `-prof-gen(pass 1) -prof-use(pass 2) -fast`

437.leslie3d: `basepeak = yes`

459.GemsFDTD: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0 -prefetch -parallel`

465.tonto: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4 -auto`

Benchmarks using both Fortran and C:

435.gromacs: `-prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch -auto-ilp32`

436.cactusADM: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -prefetch -parallel -auto-ilp32`

454.calculix: `-fast -unroll-aggressive -auto-ilp32`

481.wrf: `-fast -parallel -prefetch -auto-ilp32`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic10.1-FP-intel64-linux-flags.20090714.06.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic10.1-FP-intel64-linux-flags.20090714.06.xml`

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro
(Test Sponsor: Intel Corporation)

Supermicro X7DB8+ (Intel Xeon processor E5405, 2.00 GHz)

$SPECfp2006 =$ **18.2**

$SPECfp\_base2006 =$ **15.8**

CPU2006 license: 13		**Test date:**	Nov-2007
Test sponsor:	Intel Corporation	**Hardware Availability:**	Nov-2007
Tested by:	Intel Corporation	**Software Availability:**	Nov-2007

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 v1.0.
Report generated on Tue Jul 22 13:39:38 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 17 December 2007.