SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei
Tecal RH2285

$SPECfp®2006 =$ 43.2

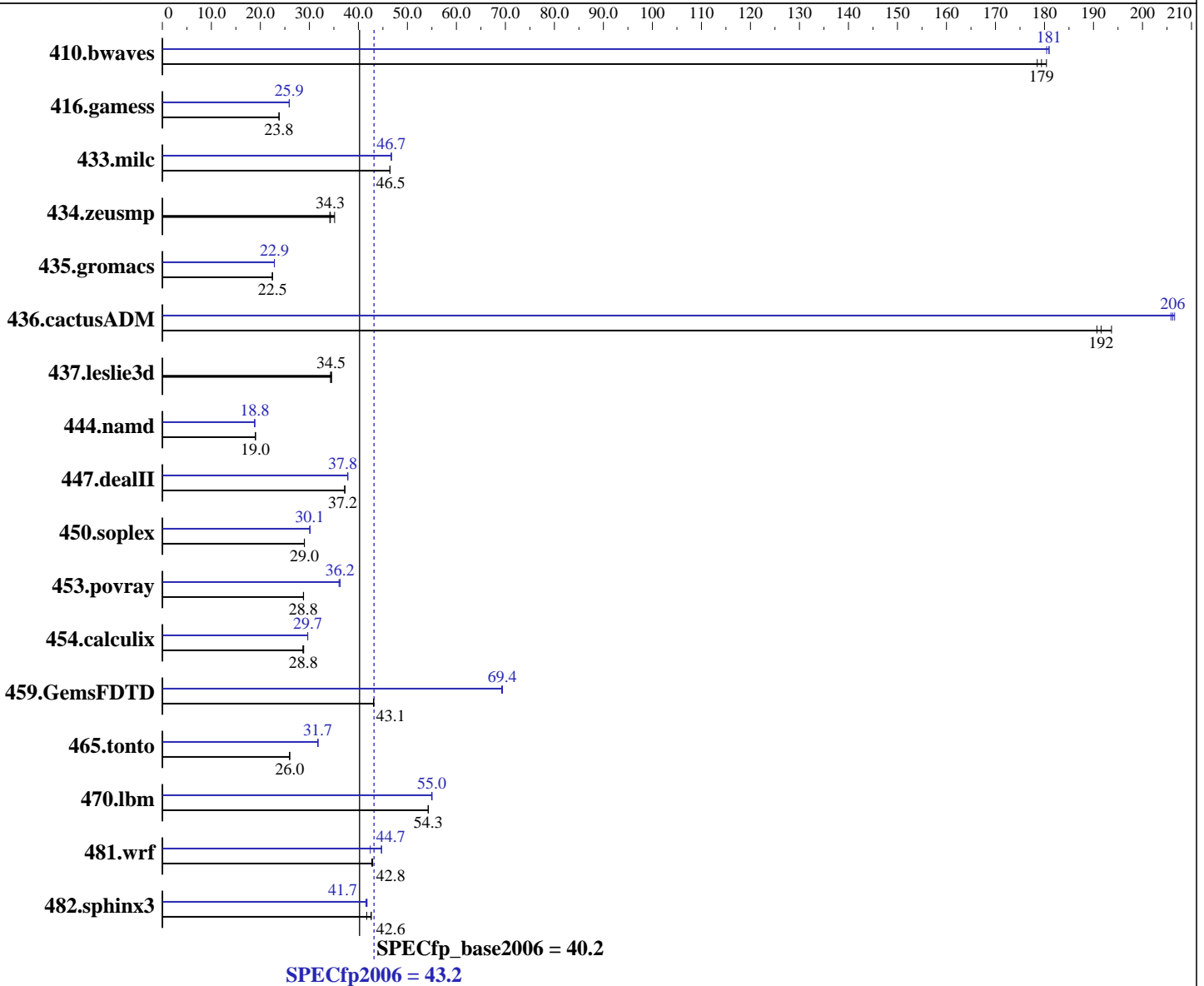$SPECfp\_base2006 =$ 40.2

CPU2006 license: 3175
Test sponsor: Huawei
Tested by: Huawei

Test date: Dec-2009
Hardware Availability: Aug-2009
Software Availability: Dec-2009

SPECfp_base2006 = 40.2

SPECfp2006 = 43.2

Hardware		
CPU Name:	Intel Xeon X5570	
CPU Characteristics:	Intel Turbo Boost Technology up to 3.33 GHz	
CPU MHz:	2933	
FPU:	Integrated	
CPU(s) enabled:	8 cores, 2 chips, 4 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:	SUSE Linux Enterprise Server 10 (x86_64) SP2, Kernel 2.6.16.60-0.21-smp
Compiler:	Intel C++ and Fortran Professional Compiler for IA32 and Intel 64, Version 11.1 Build 20091012 Package ID: l_cproc_p_11.1.059, l_cprof_p_11.1.059
Auto Parallel:	Yes
File System:	ReiserFS
System State:	Run level 3 (multi-user)

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei
Tecal RH2285

SPECfp2006 =	43.2
SPECfp_base2006 =	40.2

CPU2006 license: 3175
Test sponsor: Huawei
Tested by: Huawei

Test date: Dec-2009
Hardware Availability: Aug-2009
Software Availability: Dec-2009

L3 Cache:	8 MB I+D on chip per chip
Other Cache:	None
Memory:	24 GB (6 x 4GB DDR3-1333, CL9)
Disk Subsystem:	146 GB SAS, 10000RPM
Other Hardware:	None

Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	Binutils 2.18.50.0.7.20080502

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	76.1	179	**75.8**	**179**	75.3	180	**75.1**	**181**	75.1	181	75.3	180
416.gamess	823	23.8	**822**	**23.8**	821	23.9	756	25.9	**756**	**25.9**	756	25.9
433.milc	**198**	**46.5**	198	46.5	198	46.4	196	46.7	**196**	**46.7**	197	46.7
434.zeusmp	**265**	**34.3**	266	34.2	259	35.1	**265**	**34.3**	266	34.2	259	35.1
435.gromacs	**318**	**22.5**	318	22.4	318	22.5	312	22.9	**312**	**22.9**	313	22.8
436.cactusADM	62.7	191	61.7	194	**62.4**	**192**	58.1	206	**58.0**	**206**	57.9	207
437.leslie3d	**273**	**34.5**	272	34.5	274	34.3	**273**	**34.5**	272	34.5	274	34.3
444.namd	**422**	**19.0**	423	19.0	422	19.0	**426**	**18.8**	426	18.8	426	18.8
447.dealII	**307**	**37.2**	307	37.2	307	37.2	**302**	**37.8**	303	37.8	302	37.8
450.soplex	288	29.0	288	29.0	**288**	**29.0**	277	30.2	**277**	**30.1**	277	30.1
453.povray	185	28.8	**185**	**28.8**	185	28.8	**147**	**36.2**	147	36.3	148	36.0
454.calculix	286	28.8	288	28.7	**286**	**28.8**	278	29.7	**278**	**29.7**	278	29.7
459.GemsFDTD	246	43.1	**246**	**43.1**	246	43.1	**153**	**69.4**	153	69.2	153	69.4
465.tonto	379	25.9	379	26.0	**379**	**26.0**	310	31.7	310	31.8	**310**	**31.7**
470.lbm	**253**	**54.3**	253	54.2	253	54.3	250	54.9	**250**	**55.0**	250	55.0
481.wrf	261	42.7	**261**	**42.8**	260	42.9	263	42.4	250	44.8	**250**	**44.7**
482.sphinx3	467	41.7	**458**	**42.6**	457	42.6	469	41.5	**467**	**41.7**	467	41.8

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

General Notes

```
    OMP_NUM_THREADS set to number of cores
    KMP_AFFINITY set to granularity=fine,scatter
    KMP_STACKSIZE set to 200M
```

Base Compiler Invocation

C benchmarks:
```
     icc   -m64
```

C++ benchmarks:
```
     icpc  -m64
```

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

Tecal RH2285

SPECfp2006 = 43.2

SPECfp_base2006 = 40.2

CPU2006 license: 3175
Test sponsor: Huawei
Tested by: Huawei

Base Compiler Invocation (Continued)

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
```

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

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
```

Peak Compiler Invocation

C benchmarks (except as noted below):
```
icc   -m64
```

Huawei

Tecal RH2285

SPECfp2006 =   43.2

SPECfp_base2006 =   40.2

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Dec-2009

Hardware Availability: Aug-2009

Software Availability: Dec-2009

Peak Compiler Invocation (Continued)

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

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) -static(pass 2) -prof-use(pass 2)`
`-ansi-alias`

470.lbm: `-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)`
`-parallel -ansi-alias -auto-ilp32`

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

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

Tecal RH2285

SPECfp2006 =   43.2

SPECfp_base2006 =   40.2

CPU2006 license: 3175
Test sponsor: Huawei
Tested by: Huawei

Test date: Dec-2009
Hardware Availability: Aug-2009
Software Availability: Dec-2009

Peak Optimization Flags (Continued)

C++ benchmarks:

```
    444.namd: -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)
              -fno-alias -auto-ilp32

   447.dealII: -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)
              -unroll2 -ansi-alias -scalar-rep- -auto-ilp32

   450.soplex: -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)
              -opt-malloc-options=3

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

   416.gamess: -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)
              -unroll2 -Ob0 -ansi-alias -scalar-rep-

   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) -static(pass 2) -prof-use(pass 2)
              -unroll2 -Ob0 -opt-prefetch -parallel

    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)
              -inline-calloc -opt-malloc-options=3 -auto -unroll4
```

Benchmarks using both Fortran and C:

```
  435.gromacs: -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)
              -opt-prefetch -auto-ilp32

 436.cactusADM: -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)
              -unroll2 -opt-prefetch -parallel -auto-ilp32
```

Huawei
Tecal RH2285

SPECfp2006 =   43.2

SPECfp_base2006 =   40.2

CPU2006 license: 3175
Test sponsor: Huawei
Tested by: Huawei

Test date: Dec-2009
Hardware Availability: Aug-2009
Software Availability: Dec-2009

Peak Optimization Flags (Continued)

454.calculix: `-xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32`

481.wrf: `Same as 454.calculix`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revD.20100107.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revD.20100107.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 06:14:33 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 7 January 2010.