



# SPEC<sup>®</sup> CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Acer Incorporated

## SPECfp<sup>®</sup>\_rate2006 = 47.1

## Acer Altos R920 (Intel Xeon E7310)

## SPECfp\_rate\_base2006 = 44.0

CPU2006 license: 97

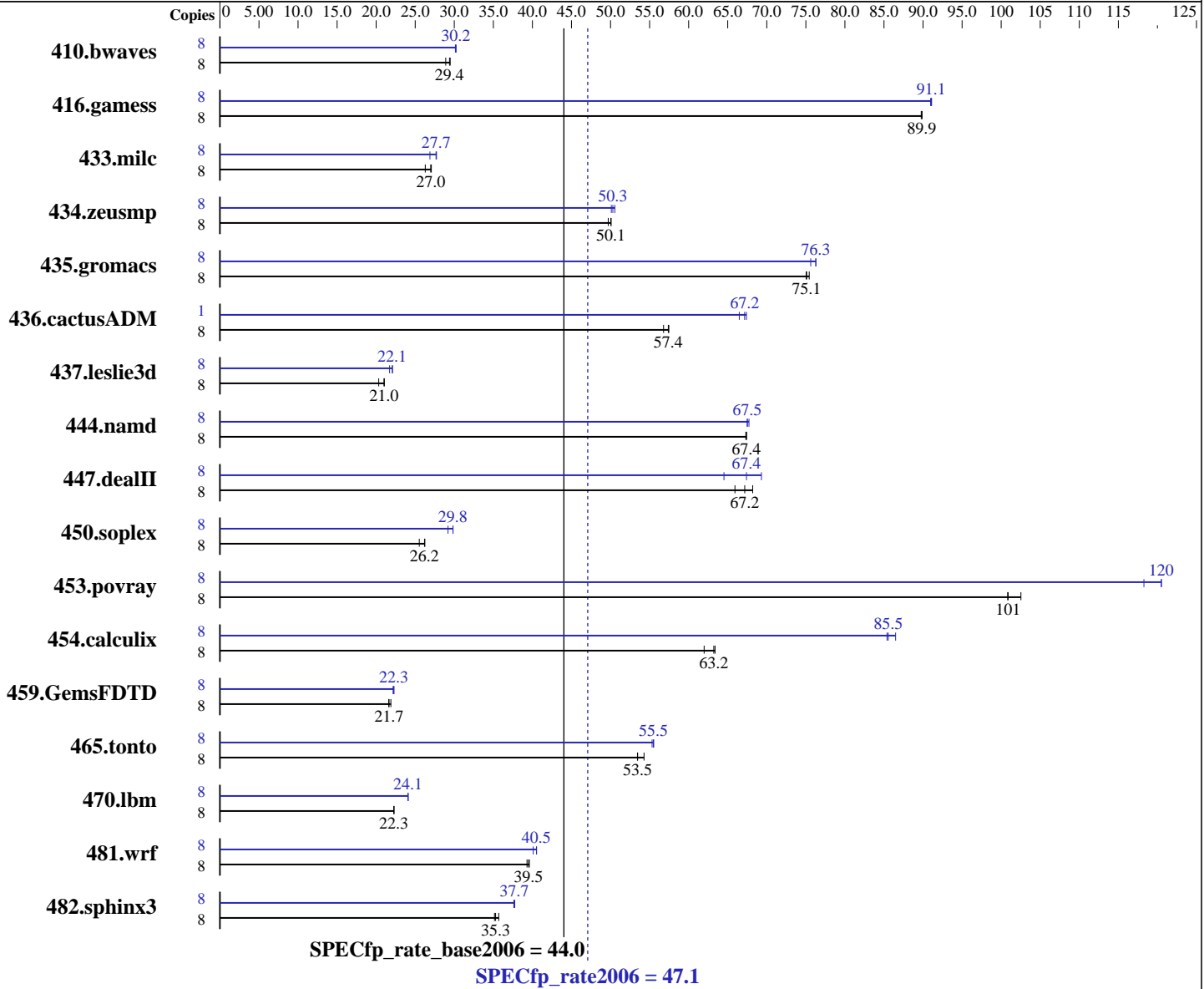
Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Oct-2007

Hardware Availability: Nov-2007

Software Availability: Sep-2007



### Hardware

CPU Name: Intel Xeon E7310  
 CPU Characteristics: 1066MHz system bus  
 CPU MHz: 1600  
 FPU: Integrated  
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip  
 CPU(s) orderable: 1, 2, 3, 4 chips  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 4 MB I+D on chip per chip, 2 MB shared / 2 cores

Continued on next page

### Software

Operating System: SuSE Linux Enterprise Server 10 SP1 (x86\_64)  
 Kernel 2.6.16.46-0.12-smp  
 Compiler: Intel C++ and Fortran Compiler for Linux32 and Linux64 version 10.1  
 Build 20070725  
 Auto Parallel: Yes  
 File System: ReiserFS  
 System State: Multi-user, level 3  
 Base Pointers: 64-bit

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Acer Incorporated

SPECfp\_rate2006 = 47.1

Acer Altos R920 (Intel Xeon E7310)

SPECfp\_rate\_base2006 = 44.0

CPU2006 license: 97  
Test sponsor: Acer Incorporated  
Tested by: Acer Incorporated

Test date: Oct-2007  
Hardware Availability: Nov-2007  
Software Availability: Sep-2007

L3 Cache: None  
Other Cache: None  
Memory: 16 GB (16 x 1048MB ECC FB-DIMM DDR2-667 CL5-5-5)  
Disk Subsystem: 1 x 73GB 10000PRM SAS HDD  
Other Hardware: None

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

## Results Table

Benchmark	Base								Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio		
410.bwaves	8	3761	28.9	<b>3699</b>	<b>29.4</b>	3688	29.5	8	3607	30.1	3597	30.2	<b>3601</b>	<b>30.2</b>		
416.gamess	8	1745	89.8	<b>1743</b>	<b>89.9</b>	1743	89.9	8	1722	91.0	1719	91.1	<b>1720</b>	<b>91.1</b>		
433.milc	8	2794	26.3	2714	27.1	<b>2722</b>	<b>27.0</b>	8	2732	26.9	2649	27.7	<b>2655</b>	<b>27.7</b>		
434.zeusmp	8	1465	49.7	<b>1454</b>	<b>50.1</b>	1454	50.1	8	1453	50.1	<b>1447</b>	<b>50.3</b>	1440	50.6		
435.gromacs	8	<b>761</b>	<b>75.1</b>	757	75.4	761	75.0	8	749	76.3	<b>749</b>	<b>76.3</b>	755	75.6		
436.cactusADM	8	1683	56.8	<b>1666</b>	<b>57.4</b>	1664	57.5	1	180	66.5	<b>178</b>	<b>67.2</b>	177	67.4		
437.leslie3d	8	3699	20.3	<b>3581</b>	<b>21.0</b>	3573	21.0	8	3462	21.7	3404	22.1	<b>3409</b>	<b>22.1</b>		
444.namd	8	952	67.4	<b>952</b>	<b>67.4</b>	953	67.3	8	947	67.7	<b>950</b>	<b>67.5</b>	951	67.5		
447.dealII	8	1342	68.2	1388	65.9	<b>1362</b>	<b>67.2</b>	8	1320	69.3	1418	64.5	<b>1358</b>	<b>67.4</b>		
450.soplex	8	2614	25.5	2543	26.2	<b>2547</b>	<b>26.2</b>	8	2285	29.2	2236	29.8	<b>2237</b>	<b>29.8</b>		
453.povray	8	<b>422</b>	<b>101</b>	415	103	422	101	8	360	118	<b>353</b>	<b>120</b>	353	121		
454.calculix	8	1065	62.0	<b>1044</b>	<b>63.2</b>	1041	63.4	8	773	85.4	<b>771</b>	<b>85.5</b>	763	86.5		
459.GemsFDTD	8	3879	21.9	3928	21.6	<b>3920</b>	<b>21.7</b>	8	3830	22.2	3809	22.3	<b>3815</b>	<b>22.3</b>		
465.tonto	8	1450	54.3	<b>1472</b>	<b>53.5</b>	1473	53.4	8	1423	55.3	<b>1419</b>	<b>55.5</b>	1418	55.5		
470.lbm	8	4935	22.3	<b>4935</b>	<b>22.3</b>	4936	22.3	8	4560	24.1	4567	24.1	<b>4566</b>	<b>24.1</b>		
481.wrf	8	<b>2262</b>	<b>39.5</b>	2273	39.3	2256	39.6	8	<b>2206</b>	<b>40.5</b>	2204	40.5	2228	40.1		
482.sphinx3	8	4369	35.7	<b>4418</b>	<b>35.3</b>	4436	35.1	8	4145	37.6	<b>4139</b>	<b>37.7</b>	4131	37.7		

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

## General Notes

BIOS Settings  
Hardware Prefetcher set to OFF

Adjacent Cache Line Prefetch set to OFF

All results but peak 436.cactusADM used taskset to bind processes to cores.  
"ulimit -s unlimited" was set for stacksize unlimited  
OMP\_NUM\_THREADS set to number of cores



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Acer Incorporated

SPECfp\_rate2006 = 47.1

Acer Altos R920 (Intel Xeon E7310)

SPECfp\_rate\_base2006 = 44.0

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Oct-2007

Hardware Availability: Nov-2007

Software Availability: Sep-2007

## Base Compiler Invocation

C benchmarks:

icc

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

C++ benchmarks:

-fast

Fortran benchmarks:

-fast

Benchmarks using both Fortran and C:

-fast



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Acer Incorporated**

**SPECfp\_rate2006 = 47.1**

**Acer Altos R920 (Intel Xeon E7310)**

**SPECfp\_rate\_base2006 = 44.0**

**CPU2006 license:** 97

**Test sponsor:** Acer Incorporated

**Tested by:** Acer Incorporated

**Test date:** Oct-2007

**Hardware Availability:** Nov-2007

**Software Availability:** Sep-2007

## Peak Compiler Invocation

C benchmarks (except as noted below):

```
/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/bin/icc
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/include
```

433.milc: icc

C++ benchmarks (except as noted below):

icpc

```
450.soplex: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/bin/icpc
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/include
```

Fortran benchmarks (except as noted below):

ifort

```
437.leslie3d: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/bin/ifort
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/include
```

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
444.namd: -DSPEC_CPU_LP64
447.deallI: -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
```

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Acer Incorporated

SPECfp\_rate2006 = 47.1

Acer Altos R920 (Intel Xeon E7310)

SPECfp\_rate\_base2006 = 44.0

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Oct-2007

Hardware Availability: Nov-2007

Software Availability: Sep-2007

## Peak Optimization Flags (Continued)

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

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

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: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch  
-opt-malloc-options=3

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

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 -auto-ilp32



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Acer Incorporated

SPECfp\_rate2006 = 47.1

Acer Altos R920 (Intel Xeon E7310)

SPECfp\_rate\_base2006 = 44.0

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Oct-2007

Hardware Availability: Nov-2007

Software Availability: Sep-2007

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.20090713.00.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.20090713.00.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 v1.0.  
Report generated on Tue Jul 22 18:10:52 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 9 April 2008.