



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Acer Incorporated

SPECfp[®]_rate2006 = 47.8

Acer Altos R920 (Intel Xeon E7220)

SPECfp_rate_base2006 = 44.2

CPU2006 license: 97

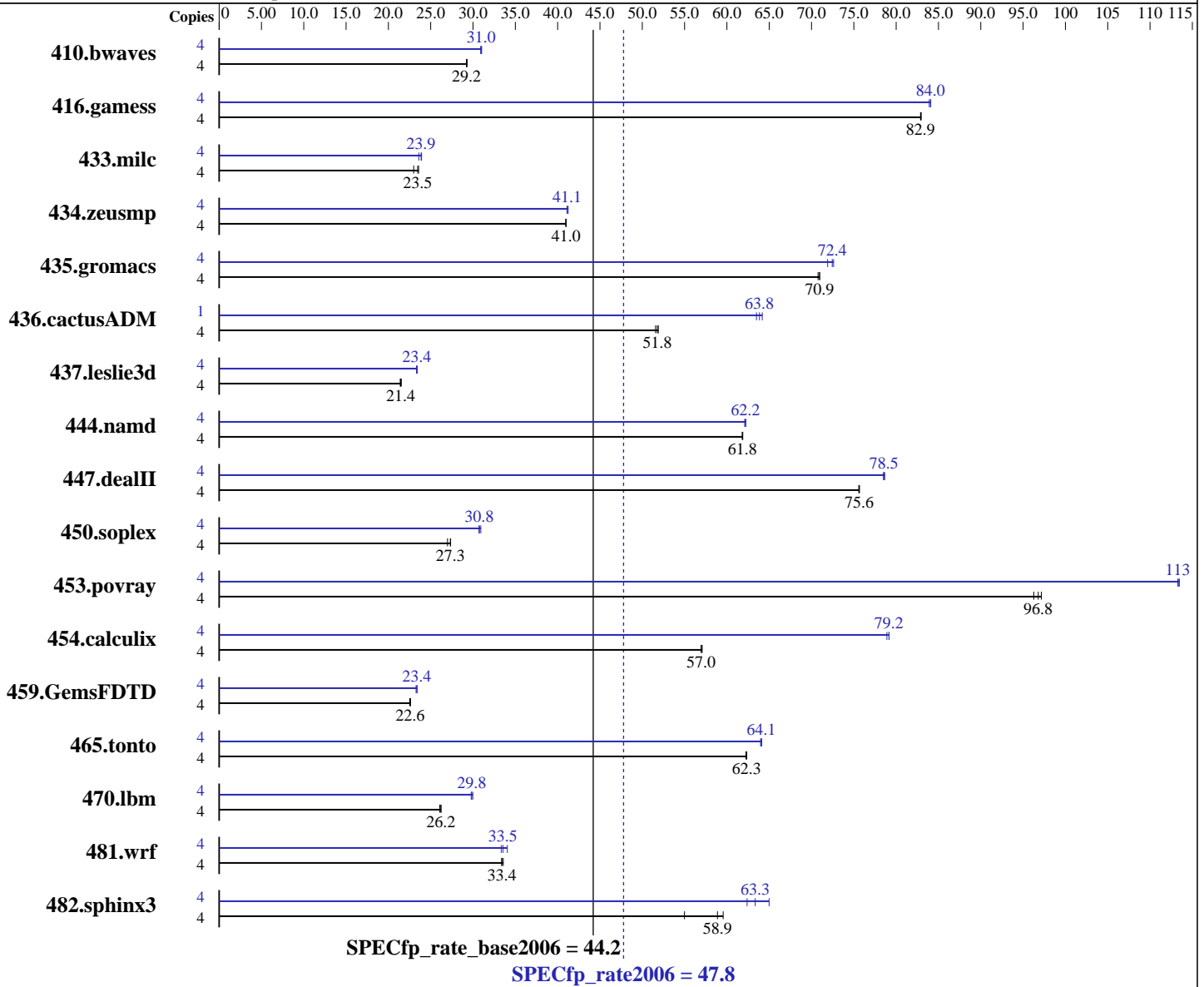
Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Mar-2008

Hardware Availability: Nov-2007

Software Availability: Nov-2007



Hardware

CPU Name: Intel Xeon E7220
 CPU Characteristics: 1066MHz system bus
 CPU MHz: 2930
 FPU: Integrated
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip
 CPU(s) orderable: 1, 2, 4 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 4 MB I+D on chip per core

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 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, level 3
 Base Pointers: 64-bit

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Acer Incorporated

SPECfp_rate2006 = 47.8

Acer Altos R920 (Intel Xeon E7220)

SPECfp_rate_base2006 = 44.2

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

Test date: Mar-2008
Hardware Availability: Nov-2007
Software Availability: Nov-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 10K RPM 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	4	1861	29.2	1855	29.3	1860	29.2	4	1759	30.9	1752	31.0	1755	31.0
416.gamess	4	945	82.9	944	83.0	945	82.9	4	932	84.0	933	83.9	931	84.1
433.milc	4	1597	23.0	1558	23.6	1565	23.5	4	1556	23.6	1539	23.9	1535	23.9
434.zeusmp	4	889	40.9	888	41.0	888	41.0	4	886	41.1	885	41.1	883	41.2
435.gromacs	4	404	70.8	403	70.9	402	71.0	4	397	71.9	394	72.4	393	72.6
436.cactusADM	4	927	51.6	923	51.8	921	51.9	1	186	64.2	187	63.8	188	63.5
437.leslie3d	4	1753	21.4	1747	21.5	1757	21.4	4	1607	23.4	1612	23.3	1609	23.4
444.namd	4	518	61.9	519	61.8	519	61.8	4	517	62.1	515	62.2	516	62.2
447.dealII	4	605	75.6	605	75.6	605	75.7	4	583	78.5	582	78.6	583	78.5
450.soplex	4	1236	27.0	1220	27.4	1221	27.3	4	1085	30.8	1086	30.7	1079	30.9
453.povray	4	221	96.3	220	96.8	219	97.2	4	188	113	188	113	188	113
454.calculix	4	579	57.0	579	57.0	578	57.1	4	418	78.9	417	79.2	417	79.2
459.GemsFDTD	4	1885	22.5	1880	22.6	1877	22.6	4	1824	23.3	1816	23.4	1815	23.4
465.tonto	4	631	62.3	631	62.3	632	62.2	4	614	64.1	615	64.0	614	64.1
470.lbm	4	2109	26.1	2098	26.2	2096	26.2	4	1845	29.8	1842	29.8	1833	30.0
481.wrf	4	1337	33.4	1331	33.6	1339	33.4	4	1340	33.3	1332	33.5	1312	34.0
482.sphinx3	4	1418	55.0	1309	59.6	1324	58.9	4	1231	63.3	1200	65.0	1250	62.4

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

General Notes

All benchmarks compiled in 64-bit mode except 437.leslie3d, 450.soplex 470.lbm and 482.sphinx3, at peak, are compiled in 32-bit mode

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 = 47.8

Acer Altos R920 (Intel Xeon E7220)

SPECfp_rate_base2006 = 44.2

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Mar-2008

Hardware Availability: Nov-2007

Software Availability: Nov-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 = 47.8

Acer Altos R920 (Intel Xeon E7220)

SPECfp_rate_base2006 = 44.2

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Mar-2008

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 (except as noted below):

ifort

```
437.leslie3d: /opt/intel/fc/10.1.008/bin/ifort -L/opt/intel/fc/10.1.008/lib
-I/opt/intel/fc/10.1.008/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.deall: -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



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Acer Incorporated

SPECfp_rate2006 = 47.8

Acer Altos R920 (Intel Xeon E7220)

SPECfp_rate_base2006 = 44.2

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Mar-2008

Hardware Availability: Nov-2007

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

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

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic10.1-fp-linux64-revC.20090713.html>



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Acer Incorporated

SPECfp_rate2006 = 47.8

Acer Altos R920 (Intel Xeon E7220)

SPECfp_rate_base2006 = 44.2

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Mar-2008

Hardware Availability: Nov-2007

Software Availability: Nov-2007

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

<http://www.spec.org/cpu2006/flags/Intel-ic10.1-fp-linux64-revC.20090713.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 v1.0.
Report generated on Tue Jul 22 18:27:11 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 15 April 2008.