SPEC® CFP2006 Result

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Acer Incorporated

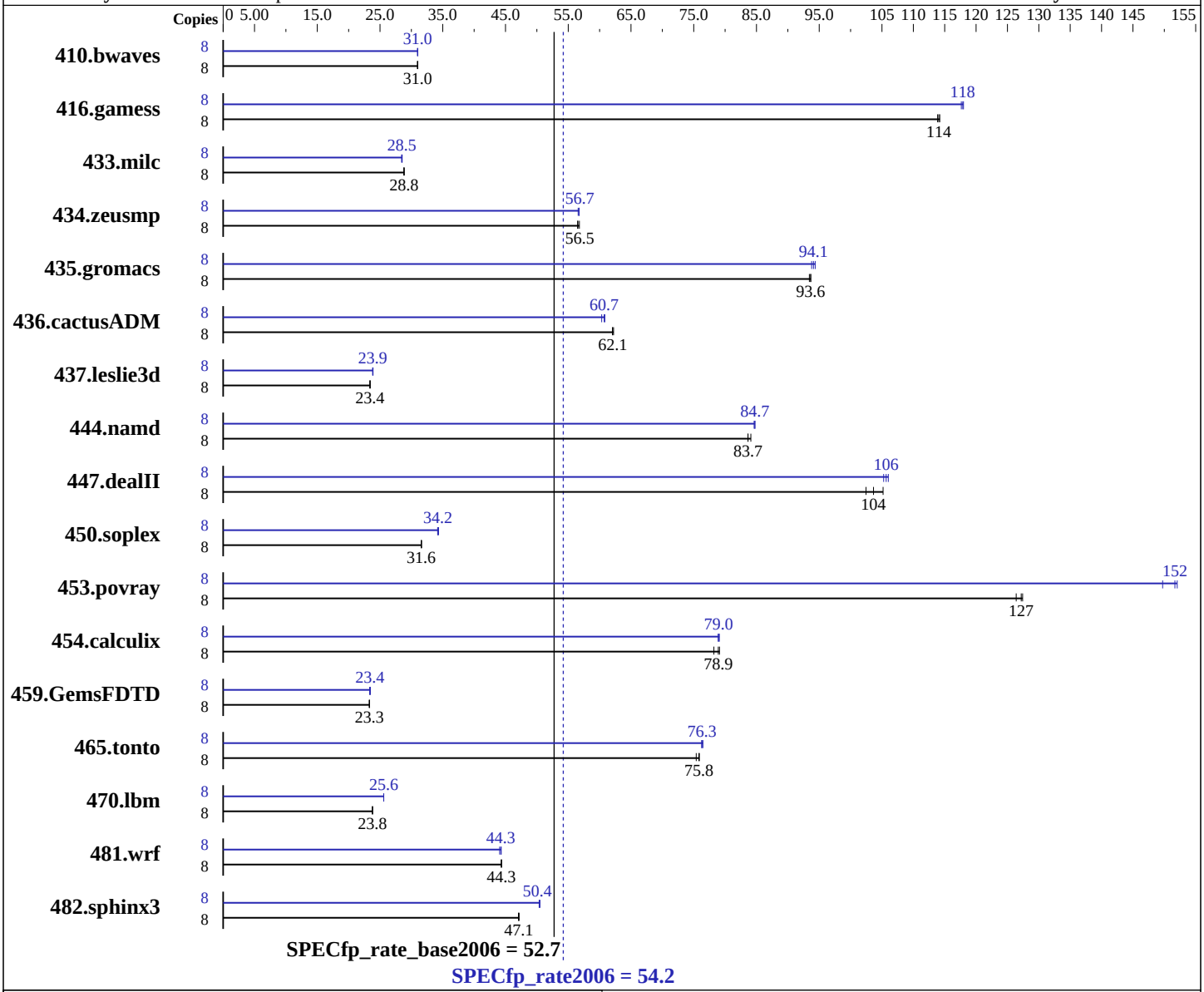
Acer Altos R520 (Intel Xeon E5335)

SPECfp®_rate2006 = 54.2

SPECfp_rate_base2006 = 52.7

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

Test date: Jun-2007
Hardware Availability: Nov-2006
Software Availability: Jun-2007



Hardware

CPU Name:	Intel Xeon E5335
CPU Characteristics:	1333MHz system bus
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:	8 MB I+D on chip per chip, 4 MB shared / 2 cores

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Software

Operating System:	SuSE Linux Enterprise Server 10 EM64T (kernel 2.6.16.21-0.8-smp)
Compiler:	Intel C++ Compiler for Linux32 version 10.0 Build 20070426 Package ID: l_cc_p_10.0.023 Intel Fortran Compiler for Linux32 version 10.0 Build 20070426 Package ID: l_fc_p_10.0.023
Auto Parallel:	No
File System:	ReiserFS
System State:	Default

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L3 Cache: None
Other Cache: None
Memory: 16 GB (8 x 2048MB ECC FB-DIMM DDR2-667 CL5-5-5)
Disk Subsystem: 1 x 73GB 10000RPM SAS HDD
Other Hardware: None

Base Pointers: 32-bit
Peak Pointers: 32-bit
Other Software: None

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	3509	31.0	3507	31.0	**3508**	**31.0**	8	**3507**	**31.0**	3507	31.0	3507	31.0
416.gamess	8	1371	114	1376	114	**1373**	**114**	8	**1329**	**118**	1328	118	1331	118
433.milc	8	**2548**	**28.8**	2545	28.9	2550	28.8	8	2581	28.4	2574	28.5	**2578**	**28.5**
434.zeusmp	8	1282	56.8	1289	56.5	**1288**	**56.5**	8	**1284**	**56.7**	1287	56.6	1283	56.7
435.gromacs	8	611	93.4	610	93.7	**610**	**93.6**	8	**607**	**94.1**	609	93.8	605	94.4
436.cactusADM	8	1541	62.0	**1540**	**62.1**	1536	62.2	8	**1574**	**60.7**	1571	60.8	1585	60.3
437.leslie3d	8	**3211**	**23.4**	3217	23.4	3209	23.4	8	3148	23.9	**3152**	**23.9**	3156	23.8
444.namd	8	763	84.1	**767**	**83.7**	767	83.6	8	758	84.6	757	84.8	**757**	**84.7**
447.dealII	8	893	102	**883**	**104**	870	105	8	863	106	**866**	**106**	869	105
450.soplex	8	**2112**	**31.6**	2110	31.6	2113	31.6	8	1952	34.2	**1949**	**34.2**	1943	34.3
453.povray	8	334	127	337	126	**335**	**127**	8	**281**	**152**	280	152	284	150
454.calculix	8	**836**	**78.9**	844	78.2	834	79.1	8	835	79.1	837	78.9	**836**	**79.0**
459.GemsFDTD	8	3644	23.3	3637	23.3	**3643**	**23.3**	8	**3627**	**23.4**	3618	23.5	3635	23.3
465.tonto	8	**1038**	**75.8**	1044	75.4	1037	75.9	8	1029	76.5	**1032**	**76.3**	1032	76.3
470.lbm	8	4619	23.8	**4619**	**23.8**	4619	23.8	8	4294	25.6	**4294**	**25.6**	4296	25.6
481.wrf	8	**2015**	**44.3**	2016	44.3	2014	44.4	8	**2019**	**44.3**	2028	44.1	2016	44.3
482.sphinx3	8	3313	47.1	**3310**	**47.1**	3306	47.2	8	3096	50.4	3088	50.5	**3092**	**50.4**

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

General Notes

```
All programs compiled with the 64-bit compiler except
437.leslie3d, 450.soplex, 470.lbm and 482.sphinx3, at peak,
compiled with the 32-bit compiler
This result was measured on the Acer Altos R520
The Altos R720 and Altos R520 are electronically equivalent.

taskset was used to bind copies to cores
```

Base Compiler Invocation

C benchmarks:
icc

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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
436.cactusADM: -DSPEC_CPU_LP64
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
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 -auto-ilp32

C++ benchmarks:
-fast -auto-ilp32

Fortran benchmarks:
-fast

Benchmarks using both Fortran and C:

435.gromacs: -fast -auto-ilp32 -nofor_main(*)

436.cactusADM: Same as 435.gromacs

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Base Optimization Flags (Continued)

454.calculix: Same as 435.gromacs

481.wrf: -fast -auto-ilp32

(*) Indicates an optimization flag that was found in a portability variable.

Peak Compiler Invocation

C benchmarks (except as noted below):
/opt/intel/cc/10.0.023/bin/icc -L/opt/intel/cc/10.0.023/lib
-I/opt/intel/cc/10.0.023/include

433.milc: icc

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

450.soplex: /opt/intel/cc/10.0.023/bin/icpc -L/opt/intel/cc/10.0.023/lib
-I/opt/intel/cc/10.0.023/include

Fortran benchmarks (except as noted below):
ifort

437.leslie3d: /opt/intel/fc/10.0.023/bin/ifort -L/opt/intel/fc/10.0.023/lib
-I/opt/intel/fc/10.0.023/include

Benchmarks using both Fortran and C:
icc ifort

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

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

470.lbm: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2
-scalar-rep- -prefetch

482.sphinx3: -fast -unroll2

Continued on next page

Peak Optimization Flags (Continued)

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) -xT -ipo -O3 -no-prec-div

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

Fortran benchmarks:

410.bwaves: -fast

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: Same as 434.zeusmp

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

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

Benchmarks using both Fortran and C:

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

436.cactusADM: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -auto-ilp32 -nofor_main(*)

454.calculix: -fast -auto-ilp32 -nofor_main(*)

481.wrf: -fast -auto-ilp32

(*) Indicates an optimization flag that was found in a portability variable.

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.16.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.16.xml

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