SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

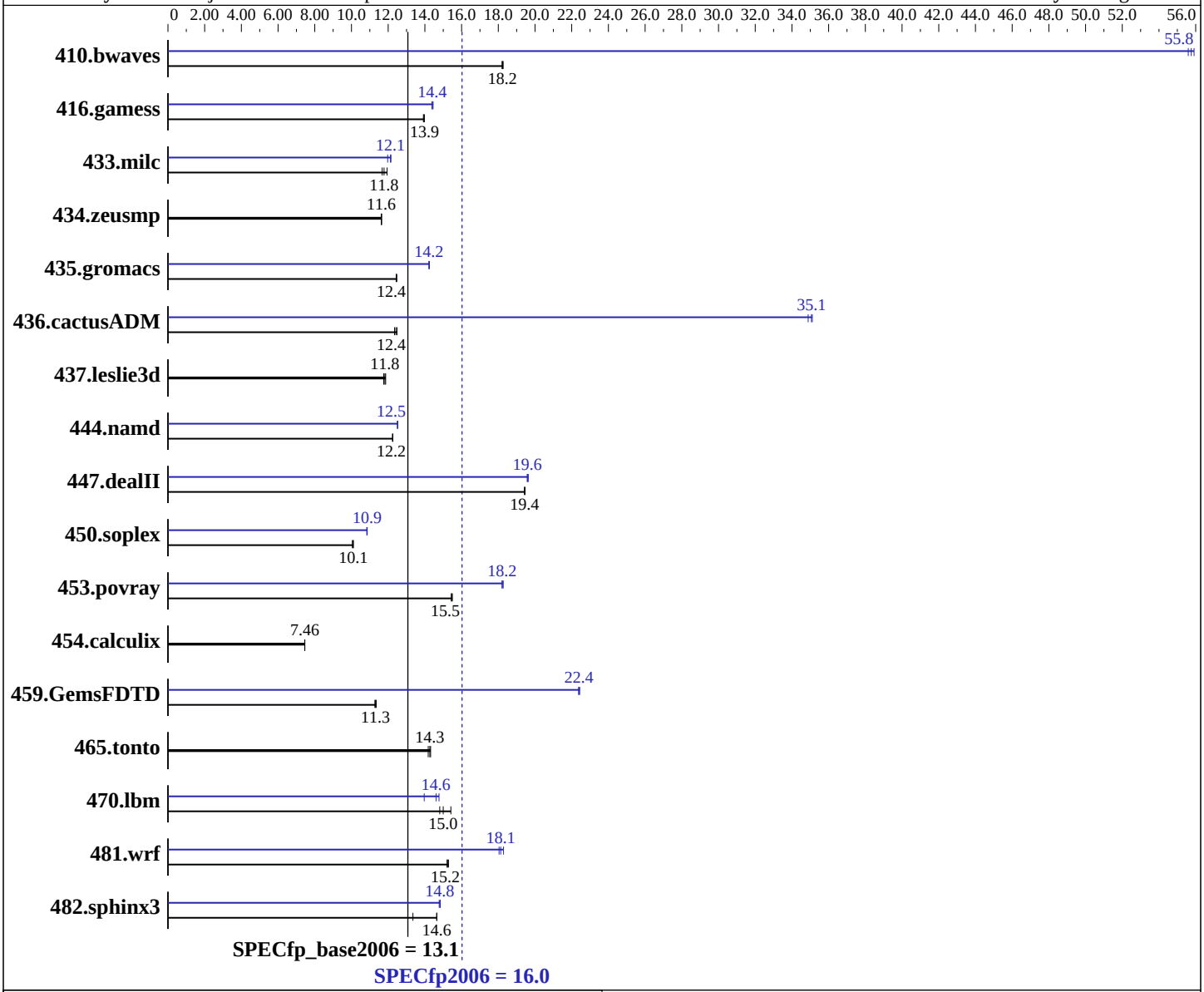
CELSIUS V840, AMD Opteron 2220

SPECfp®2006 = 16.0

SPECfp_base2006 = 13.1

CPU2006 license: 22
Test sponsor: Fujitsu Siemens Computers
Tested by: Fujitsu Siemens Computers

Test date: Feb-2007
Hardware Availability: Feb-2007
Software Availability: Aug-2006



Hardware

CPU Name:	AMD Opteron 2220
CPU Characteristics:	Dual Core, 2.8 GHz, 2 MB L2-cache
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	1 MB I+D on chip per core

Continued on next page

Software

Operating System:	SLES 10 for AMD64/EM64T
Compiler:	QLogic Pathscale Compiler Suite 2.5
Auto Parallel:	Yes
File System:	ext3
System State:	Multi-User SuSE Run Level 3
Base Pointers:	64-bit
Peak Pointers:	64-bit
Other Software:	None

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

CELSIUS V840, AMD Opteron 2220

SPECfp2006 = 16.0

SPECfp_base2006 = 13.1

CPU2006 license: 22
Test sponsor: Fujitsu Siemens Computers
Tested by: Fujitsu Siemens Computers

Test date: Feb-2007
Hardware Availability: Feb-2007
Software Availability: Aug-2006

L3 Cache: None
Other Cache: None
Memory: 16 GB (8x2GB DDR2-667 CL5 dual rank ECC DIMMs registered)
Disk Subsystem: SATA II, 80 GB
Other Hardware: None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	747	18.2	**745**	**18.2**	744	18.3	**244**	**55.8**	243	55.9	244	55.6
416.gamess	1407	13.9	1401	14.0	**1404**	**13.9**	1361	14.4	**1359**	**14.4**	1355	14.4
433.milc	787	11.7	**780**	**11.8**	769	11.9	**757**	**12.1**	756	12.2	767	12.0
434.zeusmp	**782**	**11.6**	782	11.6	783	11.6	**782**	**11.6**	782	11.6	783	11.6
435.gromacs	573	12.5	574	12.4	**574**	**12.4**	501	14.2	**502**	**14.2**	502	14.2
436.cactusADM	**962**	**12.4**	968	12.3	958	12.5	340	35.1	**341**	**35.1**	343	34.9
437.leslie3d	792	11.9	**795**	**11.8**	799	11.8	792	11.9	**795**	**11.8**	799	11.8
444.namd	654	12.3	**655**	**12.2**	655	12.2	641	12.5	641	12.5	**641**	**12.5**
447.dealII	**589**	**19.4**	589	19.4	588	19.5	584	19.6	**584**	**19.6**	583	19.6
450.soplex	**826**	**10.1**	826	10.1	830	10.0	768	10.9	**769**	**10.9**	770	10.8
453.povray	343	15.5	**344**	**15.5**	345	15.4	**292**	**18.2**	291	18.3	292	18.2
454.calculix	**1107**	**7.46**	1106	7.46	1107	7.45	**1107**	**7.46**	1106	7.46	1107	7.45
459.GemsFDTD	**938**	**11.3**	935	11.3	941	11.3	473	22.4	474	22.4	**474**	**22.4**
465.tonto	688	14.3	**690**	**14.3**	694	14.2	688	14.3	**690**	**14.3**	694	14.2
470.lbm	891	15.4	**916**	**15.0**	928	14.8	930	14.8	984	14.0	**941**	**14.6**
481.wrf	**733**	**15.2**	735	15.2	731	15.3	619	18.0	611	18.3	**616**	**18.1**
482.sphinx3	1331	14.6	**1331**	**14.6**	1460	13.3	1313	14.8	**1315**	**14.8**	1319	14.8

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

Operating System Notes

```
powersave -f is applied to set CPU to maximum frequency prior to run
stacksize is set to unlimited prior to run
```

General Notes

```
Binaries are generated on an Opteron-based system running Suse 9.3.

BIOS default settings with
Node memory interleave disabled, SRAT enabled

For information about Fujitsu Siemens Computers in your country please see:
http://www.fujitsu-siemens.com/countries
```

Base Compiler Invocation

C benchmarks:
pathcc

C++ benchmarks:
pathCC

Fortran benchmarks:
pathf95

Benchmarks using both Fortran and C:
pathcc pathf95

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 -fno-second-underscore
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64 -DSPEC_CPU_TABLE_WORKAROUND
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_LINUX -fno-second-underscore
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
-Ofast

C++ benchmarks:
-Ofast

Fortran benchmarks:
-Ofast

Benchmarks using both Fortran and C:
-Ofast

Peak Compiler Invocation

C benchmarks:
`pathcc`

C++ benchmarks:
`pathCC`

Fortran benchmarks:
`pathf95`

Benchmarks using both Fortran and C:
`pathcc pathf95`

Peak Portability Flags

`Same as Base Portability Flags`

Peak Optimization Flags

C benchmarks:

433.milc: `-fb_create fbdata`(pass 1) `-fb_opt fbdata`(pass 2) `-Ofast`

470.lbm: `-fb_create fbdata`(pass 1) `-fb_opt fbdata`(pass 2)

482.sphinx3: `-Ofast -apo`

C++ benchmarks:

444.namd: `-fb_create fbdata`(pass 1) `-fb_opt fbdata`(pass 2) `-Ofast`

447.dealII: `-Ofast -fno-exceptions`

450.soplex: `-O3 -OPT:IEEE_arith=3 -CG:load_exe=0 -CG:movnti=1 -LNO:minvariant=off -fno-exceptions`

453.povray: `-fb_create fbdata`(pass 1) `-fb_opt fbdata`(pass 2) `-Ofast -fno-fast-math`

Fortran benchmarks:

410.bwaves: `-Ofast -apo`

416.gamess: `-fb_create fbdata`(pass 1) `-fb_opt fbdata`(pass 2) `-Ofast`

434.zeusmp: `basepeak = yes`

Continued on next page

Peak Optimization Flags (Continued)

437.leslie3d: `basepeak = yes`

459.GemsFDTD: `Same as 410.bwaves`

465.tonto: `basepeak = yes`

Benchmarks using both Fortran and C:

435.gromacs: `-O3 -OPT:rsqrt=2 -OPT:ro=3`

436.cactusADM: `-Ofast -apo`

454.calculix: `basepeak = yes`

481.wrf: `Same as 436.cactusADM`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/CPU2006_flags.20090715.17.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/CPU2006_flags.20090715.17.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 10:30:56 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 7 March 2007.