SPEC® CFP2006 Result

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Fujitsu Siemens Computers

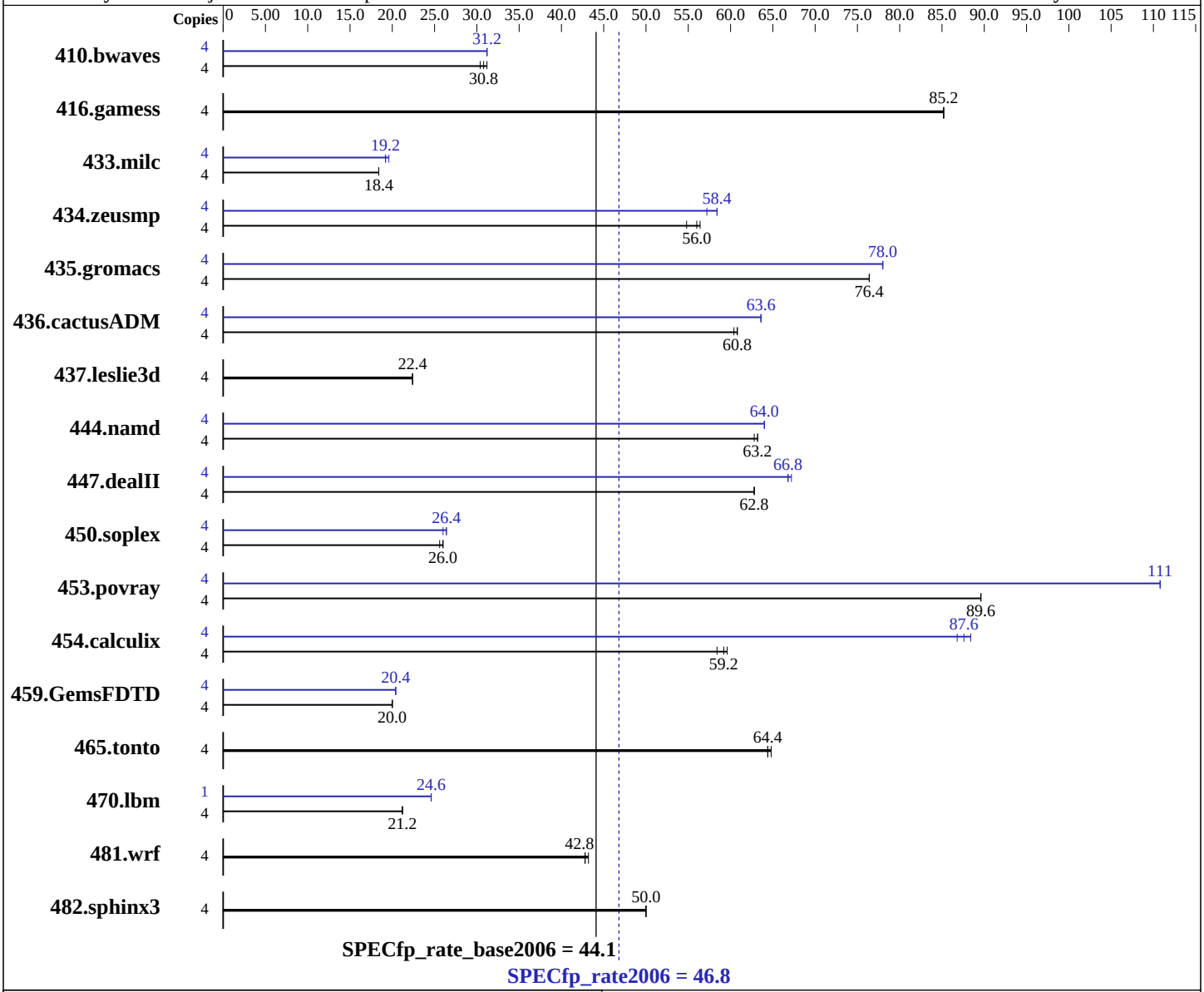
CELSIUS M460, Intel Core 2 Quad Q9650 processor

SPECfp®_rate2006 = 46.8

SPECfp_rate_base2006 = 44.1

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

Test date: Sep-2008
Hardware Availability: Sep-2008
Software Availability: Feb-2008



Hardware

CPU Name:	Intel Core 2 Quad Q9650
CPU Characteristics:	
CPU MHz:	3000
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 4 cores/chip
CPU(s) orderable:	1 chip
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	12 MB I+D on chip per chip, 6 MB shared / 2 cores

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Software

Operating System:	Windows Vista Ultimate (x64)

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L3 Cache: None
Other Cache: None
Memory: 4 GB (4x1 GB PC2-6400 CL6 SDRAM)
Disk Subsystem: 1 x 400 GB SATA 7200 RPM
Other Hardware: None

Compiler: Intel C++ Compiler for applications running on Intel 64, Version 10.1, Build 20080212
Intel Visual Fortran Compiler for applications running on Intel 64, Version 10.1, Build 20080212
Microsoft Visual Studio 2005 with SP1 (for libraries)
Auto Parallel: No
File System: NTFS
System State: Default
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other Software: SmartHeap Library Version 8.0 (64 bit) from http://www.microquill.com/

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	1783	30.4	1753	31.2	**1755**	**30.8**	4	1747	31.2	1746	31.2	**1746**	**31.2**
416.gamess	4	**918**	**85.2**	918	85.2	918	85.2	4	**918**	**85.2**	918	85.2	918	85.2
433.milc	4	**2009**	**18.4**	2010	18.4	2009	18.4	4	**1893**	**19.2**	1892	19.6	1894	19.2
434.zeusmp	4	663	54.8	**649**	**56.0**	645	56.4	4	634	57.2	622	58.4	**622**	**58.4**
435.gromacs	4	375	76.4	375	76.4	**375**	**76.4**	4	**366**	**78.0**	366	78.0	366	78.0
436.cactusADM	4	**787**	**60.8**	789	60.4	786	60.8	4	**751**	**63.6**	751	63.6	750	63.6
437.leslie3d	4	1682	22.4	1675	22.4	**1681**	**22.4**	4	1682	22.4	1675	22.4	**1681**	**22.4**
444.namd	4	509	62.8	**509**	**63.2**	509	63.2	4	501	64.0	500	64.0	**500**	**64.0**
447.dealII	4	730	62.8	**729**	**62.8**	728	62.8	4	**685**	**66.8**	685	66.8	682	67.2
450.soplex	4	1305	25.6	1282	26.0	**1291**	**26.0**	4	1256	26.4	**1271**	**26.4**	1278	26.0
453.povray	4	238	89.6	**238**	**89.6**	238	89.6	4	192	111	**192**	**111**	192	111
454.calculix	4	**558**	**59.2**	564	58.4	553	59.6	4	374	88.4	**377**	**87.6**	380	86.8
459.GemsFDTD	4	2124	20.0	2113	20.0	**2121**	**20.0**	4	2070	20.4	2068	20.4	**2069**	**20.4**
465.tonto	4	608	64.8	**610**	**64.4**	610	64.4	4	608	64.8	**610**	**64.4**	610	64.4
470.lbm	4	2602	21.2	2602	21.2	**2602**	**21.2**	1	558	24.6	559	24.6	**558**	**24.6**
481.wrf	4	1041	42.8	**1041**	**42.8**	1039	43.2	4	1041	42.8	**1041**	**42.8**	1039	43.2
482.sphinx3	4	1559	50.0	**1560**	**50.0**	1562	50.0	4	1559	50.0	**1560**	**50.0**	1562	50.0

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

Operating System Notes

```
Screen Saver was disabled
Power scheme was set to Always On, modified to Turnoff monitor: Never.
```

Platform Notes

```
BIOS default settings have been used.
```

General Notes

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

Base Compiler Invocation

C benchmarks:
```
icl -Qvc8 -Qc99
```

C++ benchmarks:
```
icl -Qvc8
```

Fortran benchmarks:
```
ifort
```

Benchmarks using both Fortran and C:
```
icl -Qvc8 -Qc99 ifort
```

Base Portability Flags

410.bwaves: -DSPEC_CPU_P64
416.gamess: -DSPEC_CPU_P64
433.milc: -DSPEC_CPU_P64
434.zeusmp: -DSPEC_CPU_P64
435.gromacs: -DSPEC_CPU_P64
436.cactusADM: -DSPEC_CPU_P64 -Qlowercase -assume:underscore
437.leslie3d: -DSPEC_CPU_P64
444.namd: -DSPEC_CPU_P64 -TP
447.dealII: -DSPEC_CPU_P64 -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
450.soplex: -DSPEC_CPU_P64
453.povray: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_P64 -DSPEC_CPU_NOZMODIFIER -Qlowercase
459.GemsFDTD: -DSPEC_CPU_P64
465.tonto: -DSPEC_CPU_P64
470.lbm: -DSPEC_CPU_P64
481.wrf: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
482.sphinx3: -DSPEC_CPU_P64

Base Optimization Flags

C benchmarks:
```
-fast -F950000000 shlW64M.lib
```

Continued on next page

Base Optimization Flags (Continued)

C++ benchmarks:
`-fast -Qcxx-features -F950000000 shlW64M.lib`

Fortran benchmarks:
`-fast -F950000000`

Benchmarks using both Fortran and C:
`-fast -F950000000`

Peak Compiler Invocation

C benchmarks:
`icl -Qvc8 -Qc99`

C++ benchmarks:
`icl -Qvc8`

Fortran benchmarks:
`ifort`

Benchmarks using both Fortran and C:
`icl -Qvc8 -Qc99 ifort`

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

433.milc: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-fast -F950000000`

470.lbm: `-fast -Qunroll2 -Qscalar-rep- -Qprefetch -F950000000`

482.sphinx3: `basepeak = yes`

C++ benchmarks:

444.namd: `-fast -Oa -F950000000 shlW64M.lib`

447.dealII: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-fast -Qcxx-features -F950000000`

Continued on next page

Peak Optimization Flags (Continued)

450.soplex: Same as 447.dealII

453.povray: Same as 447.dealII

Fortran benchmarks:

410.bwaves: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -F950000000

416.gamess: basepeak = yes

434.zeusmp: -QxT -O2 -Qprec-div- -Qunroll0 -Qscalar-rep- -F950000000

437.leslie3d: basepeak = yes

459.GemsFDTD: -fast -Qunroll2 -Ob0 -Qprefetch -F950000000

465.tonto: basepeak = yes

Benchmarks using both Fortran and C:

435.gromacs: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -F950000000

436.cactusADM: -fast -Qunroll2 -Qprefetch -F950000000

454.calculix: -fast -Qunroll-aggressive -F950000000

481.wrf: basepeak = yes

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090713.00.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090713.00.xml

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For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.1.
Report generated on Tue Jul 22 20:47:16 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 29 October 2008.