SPEC® CFP2006 Result

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Fujitsu Siemens Computers

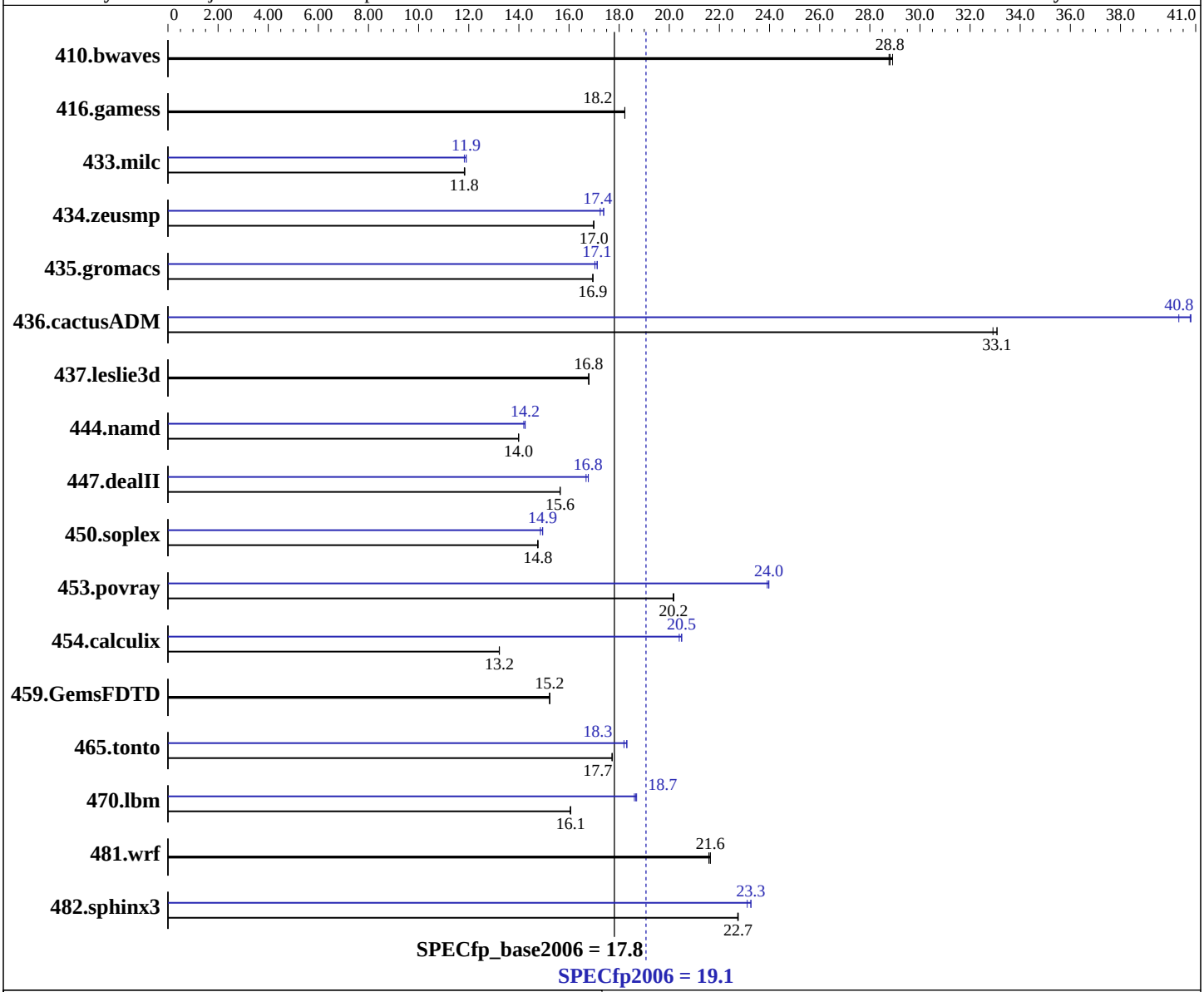
CELSIUS M460, Intel Core 2 Quad Q6700 processor

SPECfp®2006 = 19.1

SPECfp_base2006 = 17.8

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

Test date: Dec-2007
Hardware Availability: Nov-2007
Software Availability: Nov-2007



Hardware

CPU Name:	Intel Core 2 Quad Q6700
CPU Characteristics:	
CPU MHz:	2667
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:	8 MB I+D on chip per chip, 4 MB shared / 2 cores

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Software

Operating System:	Microsoft Windows Vista Ultimate (x64)
Compiler:	Intel C++ and Fortran Compilers for Intel64, Version 10.1, Build 20070913 Microsoft Visual Studio 2005 with SP1 (for libraries)
Auto Parallel:	Yes
File System:	NTFS

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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 II 7200 RPM
Other Hardware: None

System State: Default
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other Software: MicroQuill SmartHeap Library, Version 8.0 (64 bit)

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	470	28.9	472	28.8	**472**	**28.8**	470	28.9	472	28.8	**472**	**28.8**
416.gamess	1074	18.2	**1074**	**18.2**	1074	18.2	1074	18.2	**1074**	**18.2**	1074	18.2
433.milc	775	11.8	**776**	**11.8**	776	11.8	**772**	**11.9**	772	11.9	776	11.8
434.zeusmp	536	17.0	**536**	**17.0**	536	17.0	**524**	**17.4**	523	17.4	528	17.2
435.gromacs	**421**	**16.9**	421	16.9	421	17.0	417	17.1	**417**	**17.1**	419	17.0
436.cactusADM	363	32.9	**361**	**33.1**	361	33.1	**293**	**40.8**	293	40.8	296	40.3
437.leslie3d	560	16.8	**560**	**16.8**	560	16.8	560	16.8	**560**	**16.8**	560	16.8
444.namd	**573**	**14.0**	573	14.0	573	14.0	563	14.3	**563**	**14.2**	565	14.2
447.dealII	731	15.6	**731**	**15.6**	731	15.7	**682**	**16.8**	682	16.8	686	16.7
450.soplex	**565**	**14.8**	566	14.7	565	14.8	558	15.0	**558**	**14.9**	561	14.9
453.povray	**264**	**20.2**	264	20.2	264	20.2	**222**	**24.0**	222	24.0	223	23.9
454.calculix	624	13.2	624	13.2	**624**	**13.2**	**403**	**20.5**	402	20.5	404	20.4
459.GemsFDTD	**697**	**15.2**	697	15.2	697	15.2	**697**	**15.2**	697	15.2	697	15.2
465.tonto	555	17.7	**555**	**17.7**	555	17.7	**538**	**18.3**	537	18.3	541	18.2
470.lbm	**855**	**16.1**	855	16.1	856	16.0	**736**	**18.7**	735	18.7	738	18.6
481.wrf	518	21.6	516	21.6	**516**	**21.6**	518	21.6	516	21.6	**516**	**21.6**
482.sphinx3	857	22.8	**857**	**22.7**	858	22.7	**838**	**23.3**	843	23.1	838	23.3

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

Operating System Notes

```
OMP_NUM_THREADS set to number of cores (default).
```

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 -Qparallel -F1000000000 libguide40.lib
```

C++ benchmarks:
```
-fast -Qparallel -Qcxx-features -F1000000000 libguide40.lib
shlW64M.lib -link -FORCE:MULTIPLE
```

Fortran benchmarks:
```
-fast -Qparallel -F1000000000 libguide40.lib
```

Benchmarks using both Fortran and C:
```
-fast -Qparallel -F1000000000 libguide40.lib
```

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 -F1000000000 libguide40.lib

470.lbm: -fast -Qunroll2 -Qscalar-rep- -Qprefetch -F1000000000 libguide40.lib

482.sphinx3: -fast -Qunroll2 -F1000000000 libguide40.lib

C++ benchmarks:

444.namd: -fast -Qcxx-features -Oa -F1000000000 libguide40.lib shlW64M.lib -link -FORCE:MULTIPLE

447.dealII: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qcxx-features -F1000000000 libguide40.lib shlW64M.lib -link -FORCE:MULTIPLE

450.soplex: Same as 447.dealII

453.povray: Same as 447.dealII

Fortran benchmarks:

410.bwaves: basepeak = yes

Continued on next page

Peak Optimization Flags (Continued)

416.gamess: basepeak = yes

434.zeusmp: -O2 -Qunroll0 -QxT -Qscalar-rep- -Qprec-div- -F1000000000 libguide40.lib

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: -fast -Qunroll4 -Qauto -F1000000000 libguide40.lib

Benchmarks using both Fortran and C:

435.gromacs: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -F1000000000 libguide40.lib

436.cactusADM: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qparallel -Qprefetch -Qunroll2 -F1000000000 libguide40.lib

454.calculix: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qunroll-aggressive -F1000000000 libguide40.lib

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.20090714.02.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.02.xml

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