**Fujitsu Siemens Computers**

**CELSIUS M460, Intel Core 2 Quad Q9450**

| SPECfp®_rate2006 = 44.7 | SPECfp_rate_base2006 = 42.2 |

**Hardware**
- **CPU Name:** Intel Core 2 Quad Q9450
- **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:** 12 MB I+D on chip per chip, 6 MB shared / 2 cores

**Software**
- **Operating System:** Windows Vista Ultimate, 64 bit Version

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**SPEC® CFP2006 Result**

**CPU2006 license:** 22
- **Test date:** Mar-2008
- **Test sponsor:** Fujitsu Siemens Computers
- **Tested by:** Fujitsu Siemens Computers
- **Hardware Availability:** Mar-2008
- **Software Availability:** Nov-2007

| SPECfp_rate2006 = 44.7 | SPECfp_rate_base2006 = 42.2 |

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
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<tbody>
<tr>
<td>410.bwaves</td>
<td>31.0</td>
</tr>
<tr>
<td>416.gamess</td>
<td>19.3</td>
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<tr>
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<td>434.zeusmp</td>
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<td>435.gromacs</td>
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<tr>
<td>447.dealII</td>
<td>25.9</td>
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<td>450.soplex</td>
<td>26.1</td>
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<td>459.GemsFDTD</td>
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<td>482.sphinx3</td>
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**Attention:**
- Copies
- Hardware Availability: Mar-2008
- Software Availability: Nov-2007

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info@spec.org  
http://www.spec.org/
### SPEC CFP2006 Result

**Fujitsu Siemens Computers**

**CELSIUS M460, Intel Core 2 Quad Q9450**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tr>
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<td>SPECfp_rate_base2006</td>
<td>42.2</td>
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**CPU2006 license:** 22

**Test sponsor:** Fujitsu Siemens Computers

**Tested by:** Fujitsu Siemens Computers

**Test date:** Mar-2008

**Hardware Availability:** Mar-2008

**Software Availability:** Nov-2007

**Compiler:** Intel C++ Compiler

- for applications running on Intel 64, Version 10.1, Build 20070913
- Intel Visual Fortran Compiler
  - for applications running on Intel 64, Version 10.1, Build 20070913
  - 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

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
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</tbody>
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### Platform Notes

BIOS default settings have been used.
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General Notes

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

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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
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.GemsFD: -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

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Base Optimization Flags

C benchmarks:
  -fast -F9500000000 shlW64M.lib

C++ benchmarks:
  -fast -Qcxx-features -F9500000000 shlW64M.lib

Continued on next page
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Base Optimization Flags (Continued)

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 -Qunroll12 -Qscalar-rep- -Qprefetch -F950000000
482.sphinx3: basepeak = yes

C++ benchmarks:
444.namd: -fast -Oa -F9500000000 shlW64M.lib
447.dealII: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qcxx-features -F950000000
450.soplex: Same as 447.dealII

Continued on next page
Peak Optimization Flags (Continued)

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- -Qunroll10 -Qscalar-rep- -F950000000
437.leslie3d: Same as 410.bwaves
459.GemsFDTD: -fast -Qunroll12 -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 -Qunroll12 -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.20090713.03.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090713.03.xml

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

Tested with SPEC CPU2006 v1.0.
Originally published on 3 April 2008.