Fujitsu Siemens Computers
PRIMERGY TX120, Intel Celeron processor 440, 2.0 GHz

SPECfp®2006 = 11.5
SPECfp_base2006 = 11.4

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

Hardware
CPU Name: Intel Celeron 440
CPU Characteristics: 800 MHz system bus
CPU MHz: 2000
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1 chip
Primary Cache: 32 KB I + 32 KB D on chip per chip
Secondary Cache: 512 KB I+D on chip per chip

Software
Operating System: 64-Bit SUSE LINUX Enterprise Server 10, Kernel 2.6.16.21-0.8-smp on an x86_64
Auto Parallel: No
File System: ReiserFS

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SPEC CFP2006 Result

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<table>
<thead>
<tr>
<th>CPU2006 license: 22</th>
<th>Test date: Jun-2007</th>
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<tbody>
<tr>
<td>Test sponsor: Fujitsu Siemens Computers</td>
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</tbody>
</table>

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SPECfp_base2006 = 11.4

Operating System Notes
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

General Notes

The system bus runs at 800 MHz

All binaries were built with 64-bit Intel compiler except:
433.milc, 434.zeusmp, 450.soplex, 470.lbm and 482.sphinx3 in peak were built with 32-bit Intel compiler by changing the path for include and library files.

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

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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</thead>
<tbody>
<tr>
<td>410.bwaves</td>
<td>665</td>
<td>20.4</td>
<td>670</td>
<td>20.3</td>
<td>671</td>
<td>20.3</td>
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<tr>
<td>416.gamess</td>
<td>1482</td>
<td>13.2</td>
<td>1467</td>
<td>13.3</td>
<td>1486</td>
<td>13.2</td>
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<tr>
<td>433.milc</td>
<td>890</td>
<td>10.3</td>
<td>893</td>
<td>10.3</td>
<td>894</td>
<td>10.3</td>
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<td>434.zeusmp</td>
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<td>9.55</td>
<td>931</td>
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<td>435.gromacs</td>
<td>675</td>
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<td>700</td>
<td>10.2</td>
<td>695</td>
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<td>436.cactusADM</td>
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<td>14.4</td>
<td>843</td>
<td>14.2</td>
<td>832</td>
<td>14.2</td>
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<tr>
<td>437.leslie3d</td>
<td>942</td>
<td>9.97</td>
<td>954</td>
<td>9.85</td>
<td>958</td>
<td>9.81</td>
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<td>444.namd</td>
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<td>10.4</td>
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<td>780</td>
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<tr>
<td>447.dealII</td>
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<td>15.1</td>
<td>757</td>
<td>15.1</td>
<td>757</td>
<td>15.1</td>
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<tr>
<td>450.soplex</td>
<td>874</td>
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<td>453.povray</td>
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<td>454.calculix</td>
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<tr>
<td>459.GemsFDTD</td>
<td>1217</td>
<td>8.72</td>
<td>1246</td>
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<tr>
<td>465.tonto</td>
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<td>9.20</td>
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<td>9.22</td>
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<tr>
<td>470.lbm</td>
<td>1294</td>
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<tr>
<td>481.wrf</td>
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<tr>
<td>482.sphinx3</td>
<td><strong>1539</strong></td>
<td>12.7</td>
<td>1535</td>
<td>12.7</td>
<td>1581</td>
<td>12.3</td>
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Results appear in the order in which they were run. Bold underlined text indicates a median measurement.
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Base Compiler Invocation

C benchmarks:
icc
C++ benchmarks:
icpc
Fortran benchmarks:
ifort
Benchmarks using both Fortran and C:
icc ifort

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gameess: -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
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
-fast
C++ benchmarks:
-fast
Fortran benchmarks:
-fast
Benchmarks using both Fortran and C:
-fast
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Peak Compiler Invocation

C benchmarks:
/opt/intel/cc/9.1.047/bin/icc -I/opt/intel/cc/9.1.047/include
-L/opt/intel/cc/9.1.047/lib

C++ benchmarks (except as noted below):
icpc
450.soplex: /opt/intel/cc/9.1.047/bin/icpc
-I/opt/intel/cc/9.1.047/include -L/opt/intel/cc/9.1.047/lib

Fortran benchmarks (except as noted below):
ifort
434.zeusmp: /opt/intel/fc/9.1.043/bin/ifort
-I/opt/intel/fc/9.1.043/include -L/opt/intel/fc/9.1.043/lib

Benchmarks using both Fortran and C:
icc ifort

Peak Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:
433.milc: -prof_gen(pass 1) -prof_use(pass 2) -fast
470.lbm: Same as 433.milc
482.sphinx3: -fast

C++ benchmarks:

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**Peak Optimization Flags (Continued)**

- 444.namd: basepeak = yes
- 447.dealII: -prof_gen(pass 1) -prof_use(pass 2) -fast
- 450.soplex: Same as 447.dealII
- 453.povray: Same as 447.dealII

Fortran benchmarks:

- 410.bwaves: basepeak = yes
- 416.gamess: basepeak = yes
- 434.zeusmp: -fast
- 437.leslie3d: basepeak = yes
- 459.GemsFDTD: basepeak = yes
- 465.tonto: -prof_gen(pass 1) -prof_use(pass 2) -fast

Benchmarks using both Fortran and C:

- 435.gromacs: -prof_gen(pass 1) -prof_use(pass 2) -fast
- 436.cactusADM: basepeak = yes
- 454.calculix: Same as 435.gromacs
- 481.wrf: basepeak = yes

The flags file that was used to format this result can be browsed at  

You can also download the XML flags source by saving the following link:  
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.09.xml

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

Tested with SPEC CPU2006 v1.0.  