**SPEC® CFP2006 Result**

**Fujitsu Siemens Computers**

PRIMERGY TX300 S3, Intel Xeon processor X5355, 2.66 GHz

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

<table>
<thead>
<tr>
<th>Software</th>
<th>Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECfp&lt;sup&gt;®&lt;/sup&gt;_rate2006 = 60.9</td>
<td>CPU Name: Intel Xeon X5355</td>
</tr>
<tr>
<td>SPECfp_rate_base2006 = 58.6</td>
<td>CPU Characteristics: X5355</td>
</tr>
<tr>
<td></td>
<td>CPU MHZ: 2667</td>
</tr>
<tr>
<td></td>
<td>FPU: Integrated</td>
</tr>
<tr>
<td></td>
<td>CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip</td>
</tr>
<tr>
<td></td>
<td>CPU(s) orderable: 1.2 chips</td>
</tr>
<tr>
<td></td>
<td>Primary Cache: 32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td></td>
<td>Secondary Cache: 8 MB I+D on chip per core, 4 MB shared / 2 cores</td>
</tr>
<tr>
<td></td>
<td>Operating System: 64-Bit SUSE LINUX Enterprise Server 10, Kernel 2.6.16.21-0.8-smp on an x86_64</td>
</tr>
<tr>
<td></td>
<td>Intel Fortran Compiler for IA32/EM64T application, Version 9.1 - Build 20070215, Package ID: I_fc_p_9.1.043</td>
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<tr>
<td></td>
<td>Auto Parallel: No</td>
</tr>
<tr>
<td></td>
<td>File System: ext2</td>
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</tbody>
</table>
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**SPECfp_rate2006 = 60.9**

**SPECfp_rate_base2006 = 58.6**

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L3 Cache: None
Other Cache: None
Memory: 16 GB (8x2 GB DDR2 PC2-5300F, 2 rank, CAS 5-5-5, with ECC)
Disk Subsystem: SAS (73GB 15400 rpm)
Other Hardware: None

System State: Multiuser, Runlevel 3
Base Pointers: 64-bit  
Peak Pointers: 32/64-bit
Other Software: None

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<th>Ratio</th>
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<tbody>
<tr>
<td>410.bwaves</td>
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<td>3248</td>
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<td>433.milc</td>
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<td>434.zeusmp</td>
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<td>435.gromacs</td>
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<td>470</td>
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<td>472</td>
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<td>68.3</td>
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<td>450.soplex</td>
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<td>453.povray</td>
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<td>459.GemsFDTD</td>
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<td>482.sphinx3</td>
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<td>3139</td>
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</table>

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

**Operating System Notes**

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run  
'/usr/bin/taskset' used to bind processes to CPUs

**General Notes**

The system bus runs at 1333 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.

BIOS configuration:

Continued on next page
**SPEC CFP2006 Result**

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| SPECfp_rate2006 | 60.9 |
| SPECfp_rate_base2006 | 58.6 |

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**General Notes (Continued)**

Hardware Prefetch = Disable, Adjacent Sector Prefetch = Disable

This result was measured on the PRIMERGY RX300 S3. The PRIMERGY RX300 S3 and the PRIMERGY TX300 S3 are electronically equivalent.

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

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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.gamess: -DSPEC_CPU_LP64  
433.milc: -DSPEC_CPU_LP64  
434.zeusmp: -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  
450.soplex: -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  
470.lbm: -DSPEC_CPU_LP64  
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX  
482.sphinx3: -DSPEC_CPU_LP64

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**Base Optimization Flags**

C benchmarks: -fast

Continued on next page
Fujitsu Siemens Computers
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SPECfp_rate2006 = 60.9
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Base Optimization Flags (Continued)

C++ benchmarks:
- fast

Fortran benchmarks:
- fast

Benchmarks using both Fortran and C:
- fast

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


Benchmarks using both Fortran and C:
icc ifort

Peak Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.games: -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
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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:
- 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
## SPEC CFP2006 Result

<table>
<thead>
<tr>
<th>Issue Details</th>
<th>Value</th>
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<tr>
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