



SPEC® CFP2006 Result

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Fujitsu Siemens Computers

PRIMERGY TX600 S3, Intel Xeon processor 7140M, 3.40 GHz

SPECfp®_rate2006 = 60.2

SPECfp_rate_base2006 = 58.5

CPU2006 license: 22

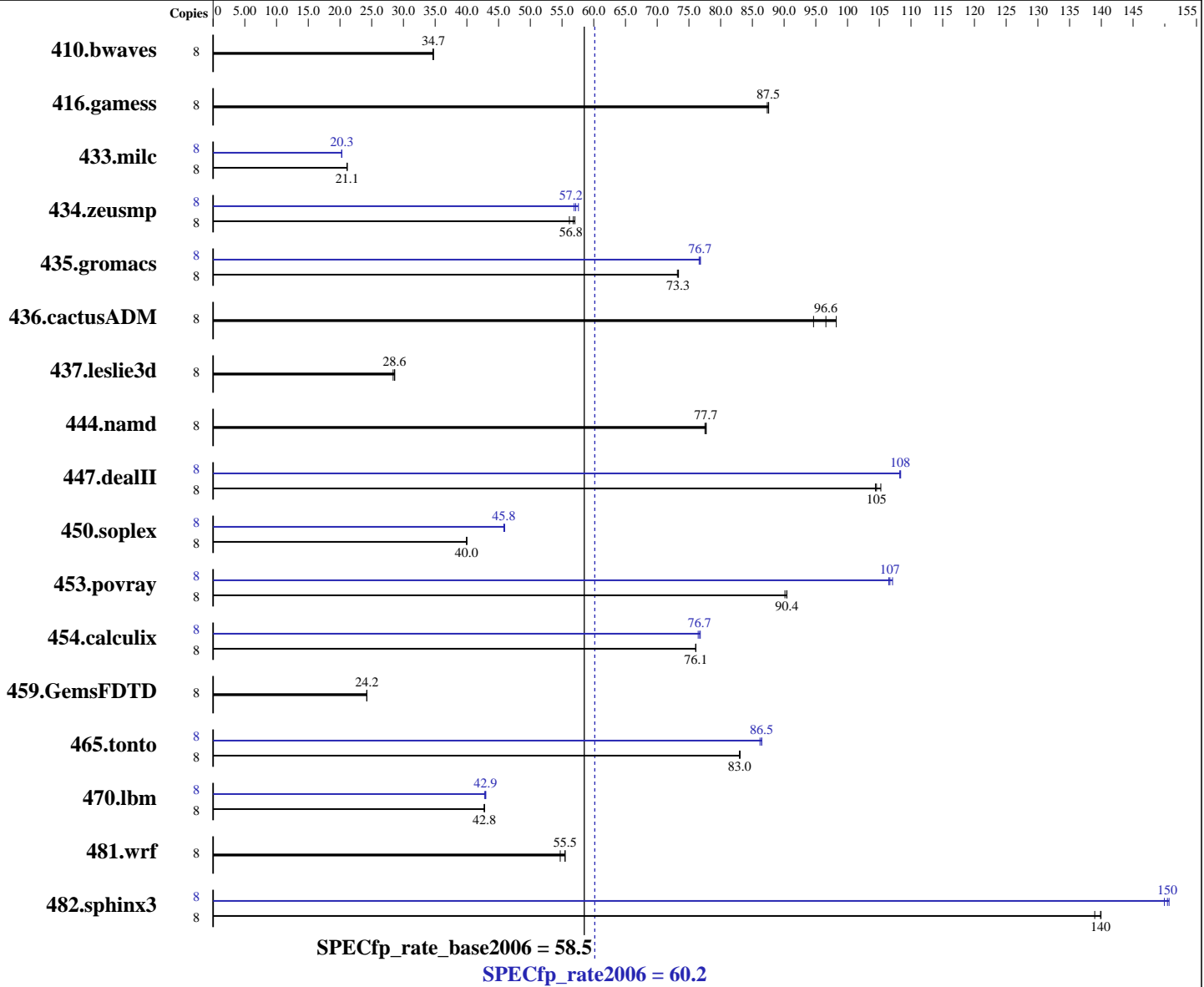
Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Apr-2007

Hardware Availability: Dec-2006

Software Availability: Feb-2007



Hardware

CPU Name: Intel Xeon 7140M
 CPU Characteristics: 800 MHz system bus
 CPU MHz: 3400
 FPU: Integrated
 CPU(s) enabled: 8 cores, 4 chips, 2 cores/chip
 CPU(s) orderable: 1,2,4 chips
 Primary Cache: 12 K micro-ops I + 16 KB D on chip per core
 Secondary Cache: 1 MB I+D on chip per core

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Software

Operating System: 64-Bit SUSE LINUX Enterprise Server 10, Kernel 2.6.16.21-0.8-smp on an x86_64
 Compiler: Intel C++ Compiler for IA32/EM64T application, Version 9.1 - Build 20070215, Package-ID: l_cc_p_9.1.047
 Intel Fortran Compiler for IA32/EM64T application, Version 9.1 - Build 20070215, Package ID: l_fc_p_9.1.043
 Auto Parallel: No
 File System: ReiserFS

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Hardware (Continued)

L3 Cache: 16 MB I+D on chip per chip
Other Cache: None
Memory: 32 GB (16x2 GB DDR2 PC2-3200R, 1 rank, CAS 3-3-3, with ECC)
Disk Subsystem: Fujitsu MAS3735NC (SCSI 73GB 15 krpm)
Other Hardware: None

Software (Continued)

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

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	3139	34.6	3131	34.7	3131	34.7	8	3139	34.6	3131	34.7	3131	34.7
416.gamess	8	1793	87.3	1790	87.5	1789	87.6	8	1793	87.3	1790	87.5	1789	87.6
433.milc	8	3475	21.1	3475	21.1	3480	21.1	8	3624	20.3	3620	20.3	3620	20.3
434.zeusmp	8	1296	56.2	1277	57.0	1282	56.8	8	1274	57.2	1279	56.9	1264	57.6
435.gromacs	8	781	73.2	779	73.3	779	73.4	8	744	76.7	746	76.6	744	76.8
436.cactusADM	8	973	98.2	990	96.6	1010	94.6	8	973	98.2	990	96.6	1010	94.6
437.leslie3d	8	2650	28.4	2627	28.6	2629	28.6	8	2650	28.4	2627	28.6	2629	28.6
444.namd	8	828	77.5	826	77.7	826	77.7	8	828	77.5	826	77.7	826	77.7
447.dealII	8	877	104	875	105	870	105	8	845	108	846	108	844	108
450.soplex	8	1670	39.9	1668	40.0	1670	40.0	8	1451	46.0	1456	45.8	1455	45.8
453.povray	8	472	90.1	471	90.4	471	90.4	8	400	107	397	107	399	107
454.calculix	8	867	76.1	868	76.1	867	76.1	8	863	76.5	859	76.8	861	76.7
459.GemsFDTD	8	3502	24.2	3502	24.2	3504	24.2	8	3502	24.2	3502	24.2	3504	24.2
465.tonto	8	949	83.0	948	83.0	948	83.1	8	910	86.5	910	86.5	913	86.2
470.lbm	8	2569	42.8	2570	42.8	2573	42.7	8	2560	42.9	2557	43.0	2569	42.8
481.wrf	8	1611	55.5	1633	54.7	1610	55.5	8	1611	55.5	1633	54.7	1610	55.5
482.sphinx3	8	1114	140	1115	140	1122	139	8	1037	150	1040	150	1035	151

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 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.

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General Notes (Continued)

BIOS configuration:

Hardware Prefetch = Enable, Adjacent Sector Prefetch = Enable

This result was measured on the PRIMERGY RX600 S3. The PRIMERGY RX600 S3 and the PRIMERGY TX600 S3 are electronically equivalent.

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

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.deallI: -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

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

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

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Peak Portability Flags (Continued)

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:

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



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

http://www.spec.org/cpu2006/flags/CPU2006_flags.20070417.html

You can also download the XML flags source by saving the following link:

http://www.spec.org/cpu2006/flags/CPU2006_flags.20070417.xml

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

Tested with SPEC CPU2006 v1.0.
Report generated on Sun Dec 16 01:44:54 2007 by SPEC CPU2006 PS/PDF formatter v5614.