SPEC® CFP2006 Result

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Fujitsu Siemens Computers

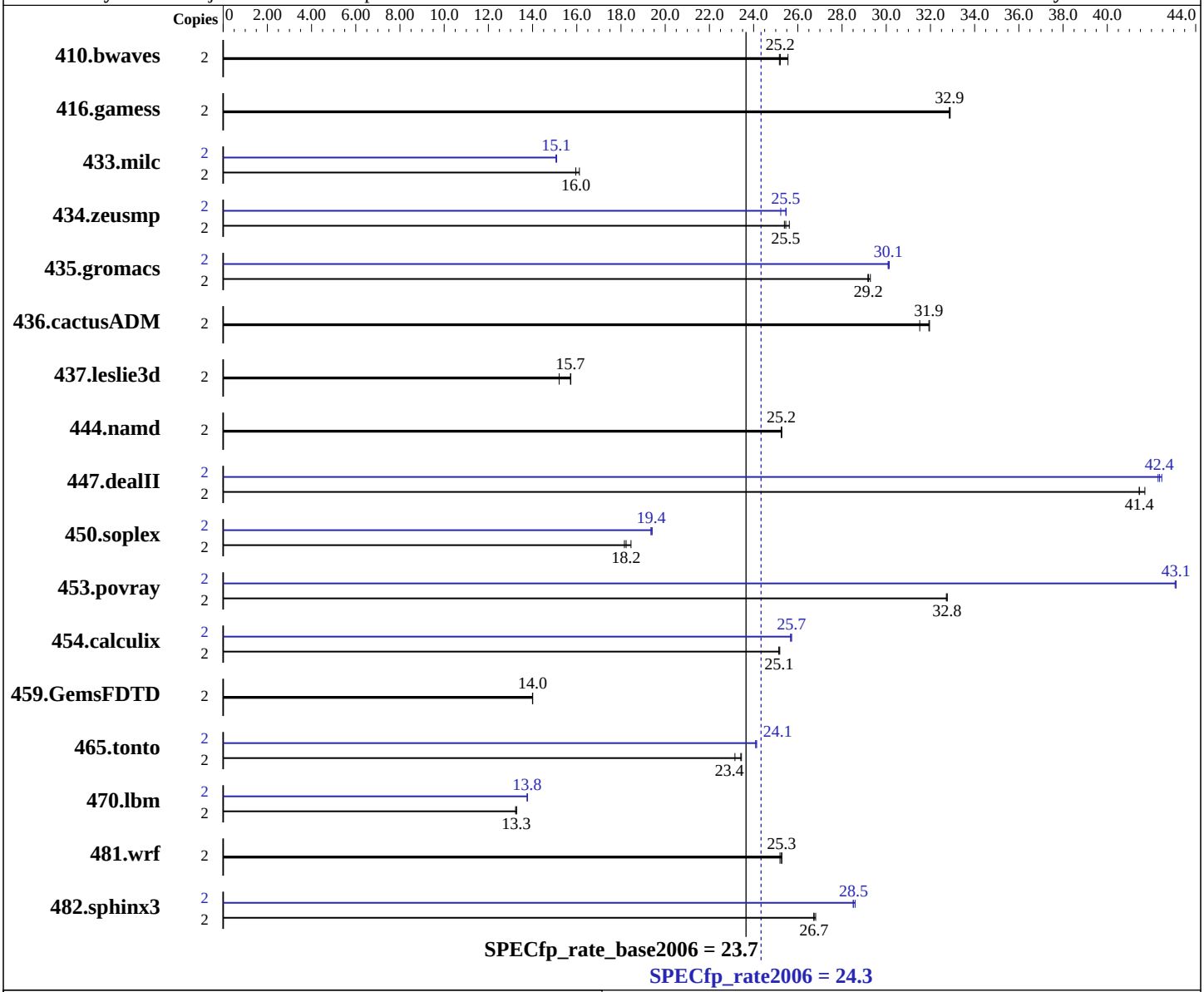
PRIMERGY RX100 S4, Intel Xeon processor 3060, 2.40 GHz

SPECfp®_rate2006 = 24.3

SPECfp_rate_base2006 = 23.7

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

Test date: Apr-2007
Hardware Availability: Sep-2006
Software Availability: Feb-2007



Hardware

CPU Name:	Intel Xeon 3060
CPU Characteristics:	1067 MHz system bus
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip
CPU(s) orderable:	1 chip
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	4 MB I+D on chip per chip

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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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L3 Cache: None
Other Cache: None
Memory: 8 GB (4x2 GB DDR2 PC2-4200E, 2 rank, CAS 4-4-4, with ECC)
Disk Subsystem: SATA (160 GB, 7200 rpm)
Other Hardware: None

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	2	1064	25.6	**1078**	**25.2**	1080	25.2	2	1064	25.6	**1078**	**25.2**	1080	25.2
416.gamess	2	1190	32.9	**1191**	**32.9**	1192	32.9	2	1190	32.9	**1191**	**32.9**	1192	32.9
433.milc	2	1139	16.1	**1151**	**16.0**	1151	16.0	2	1217	15.1	**1218**	**15.1**	1219	15.1
434.zeusmp	2	711	25.6	717	25.4	**715**	**25.5**	2	**715**	**25.5**	714	25.5	721	25.2
435.gromacs	2	490	29.2	**489**	**29.2**	488	29.3	2	475	30.1	474	30.1	**475**	**30.1**
436.cactusADM	2	**749**	**31.9**	748	32.0	758	31.5	2	**749**	**31.9**	748	32.0	758	31.5
437.leslie3d	2	1237	15.2	**1196**	**15.7**	1195	15.7	2	1237	15.2	**1196**	**15.7**	1195	15.7
444.namd	2	**635**	**25.2**	635	25.2	635	25.3	2	**635**	**25.2**	635	25.2	635	25.3
447.dealII	2	549	41.7	552	41.4	**552**	**41.4**	2	**540**	**42.4**	541	42.3	539	42.5
450.soplex	2	904	18.5	**915**	**18.2**	919	18.2	2	862	19.4	**861**	**19.4**	859	19.4
453.povray	2	**325**	**32.8**	325	32.8	325	32.7	2	247	43.1	247	43.1	**247**	**43.1**
454.calculix	2	655	25.2	**656**	**25.1**	656	25.1	2	**642**	**25.7**	643	25.7	642	25.7
459.GemsFDTD	2	1515	14.0	**1515**	**14.0**	1516	14.0	2	1515	14.0	**1515**	**14.0**	1516	14.0
465.tonto	2	850	23.2	**840**	**23.4**	839	23.5	2	815	24.1	**817**	**24.1**	817	24.1
470.lbm	2	2070	13.3	2077	13.2	**2071**	**13.3**	2	1996	13.8	**1997**	**13.8**	1998	13.8
481.wrf	2	884	25.3	887	25.2	**884**	**25.3**	2	884	25.3	887	25.2	**884**	**25.3**
482.sphinx3	2	**1458**	**26.7**	1459	26.7	1454	26.8	2	1368	28.5	1363	28.6	**1367**	**28.5**

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 1067 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:
```

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General Notes (Continued)

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.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

Base Optimization Flags

C benchmarks:
-fast

C++ benchmarks:
-fast

Fortran benchmarks:
-fast

Continued on next page

Base Optimization Flags (Continued)

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`
465.tonto: `-DSPEC_CPU_LP64`
481.wrf: `-DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX`

Peak Optimization Flags

C benchmarks:

Continued on next page

Peak Optimization Flags (Continued)

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
`http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.09.html`

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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