SPEC® CFP2006 Result

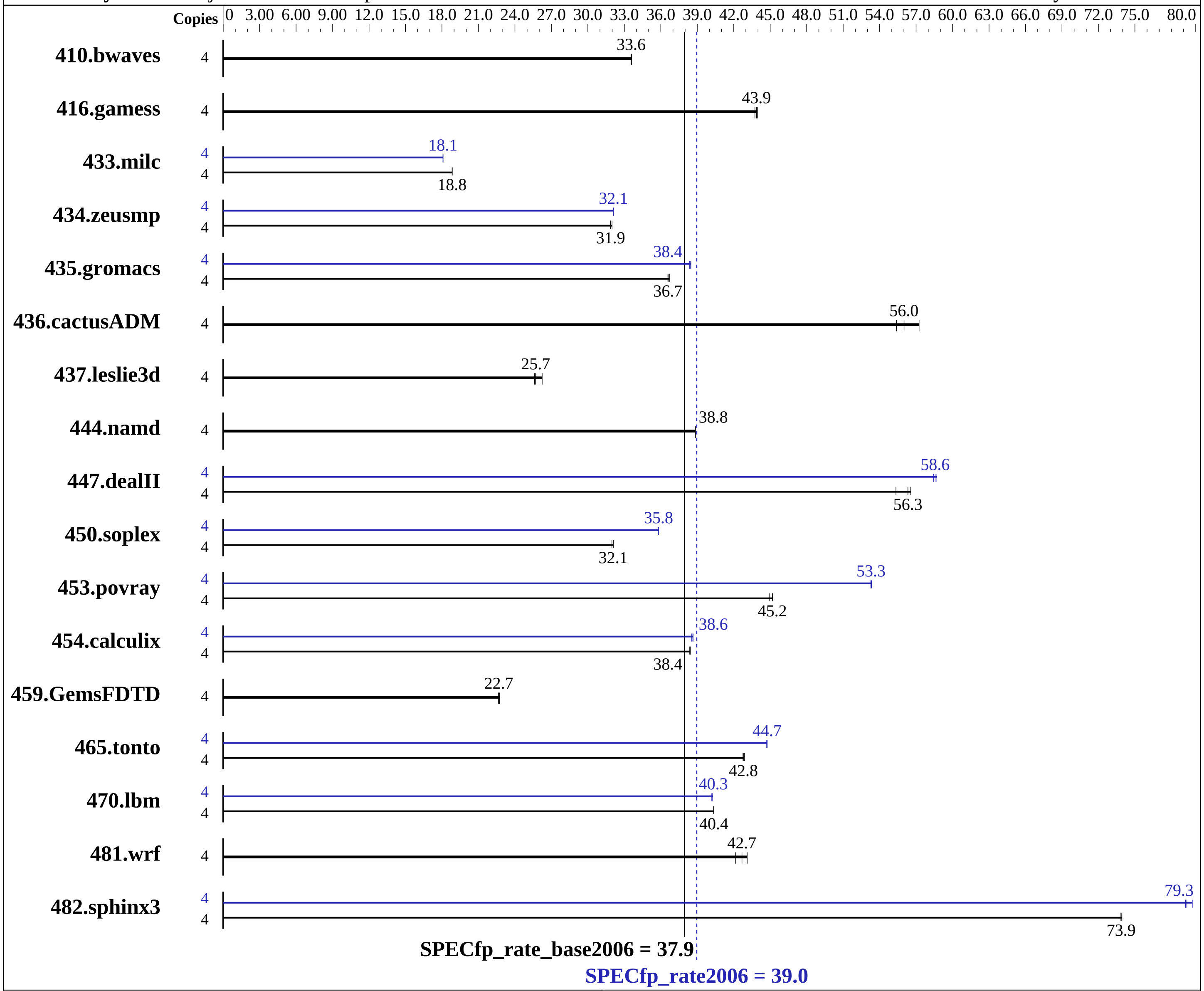
Fujitsu Siemens Computers

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

SPECfp®_rate2006 = 39.0

SPECfp_rate_base2006 = 37.9

CPU2006 license:	22	**Test date:**	Apr-2007
Test sponsor:	Fujitsu Siemens Computers	**Hardware Availability:**	Dec-2006
Tested by:	Fujitsu Siemens Computers	**Software Availability:**	Feb-2007



Hardware

CPU Name:	Intel Xeon 7140M
CPU Characteristics:	800 MHz system bus
CPU MHz:	3400
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 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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L3 Cache:	16 MB I+D on chip per chip	System State:	Multiuser, Runlevel 3
Other Cache:	None	Base Pointers:	64-bit
Memory:	32 GB (16x2 GB DDR2 PC2-3200R, 2 rank, CAS 3-3-3, with ECC)	Peak Pointers:	32/64-bit
Disk Subsystem:	Fujitsu MAS3735NC (SCSI 73GB 15 krpm)	Other Software:	None
Other Hardware:	None		

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	**1620**	**33.6**	1620	33.5	1617	33.6	4	**1620**	**33.6**	1620	33.5	1617	33.6
416.gamess	4	1782	43.9	1790	43.7	**1785**	**43.9**	4	1782	43.9	1790	43.7	**1785**	**43.9**
433.milc	4	**1949**	**18.8**	1949	18.8	1950	18.8	4	**2030**	**18.1**	2030	18.1	2031	18.1
434.zeusmp	4	1142	31.9	1138	32.0	**1142**	**31.9**	4	1134	32.1	**1134**	**32.1**	1133	32.1
435.gromacs	4	778	36.7	781	36.6	**779**	**36.7**	4	**743**	**38.4**	742	38.5	744	38.4
436.cactusADM	4	**853**	**56.0**	835	57.2	863	55.4	4	**853**	**56.0**	835	57.2	863	55.4
437.leslie3d	4	1433	26.2	1468	25.6	**1463**	**25.7**	4	1433	26.2	1468	25.6	**1463**	**25.7**
444.namd	4	826	38.8	826	38.9	**826**	**38.8**	4	826	38.8	826	38.9	**826**	**38.8**
447.dealII	4	827	55.3	**812**	**56.3**	809	56.6	4	779	58.7	783	58.4	**781**	**58.6**
450.soplex	4	**1040**	**32.1**	1039	32.1	1043	32.0	4	933	35.8	931	35.8	**931**	**35.8**
453.povray	4	474	44.9	**471**	**45.2**	471	45.2	4	399	53.3	399	53.3	**399**	**53.3**
454.calculix	4	859	38.4	860	38.4	**859**	**38.4**	4	857	38.5	854	38.7	**855**	**38.6**
459.GemsFDTD	4	1866	22.7	**1871**	**22.7**	1874	22.6	4	1866	22.7	**1871**	**22.7**	1874	22.6
465.tonto	4	**920**	**42.8**	918	42.9	920	42.8	4	880	44.7	**880**	**44.7**	879	44.8
470.lbm	4	1361	40.4	**1362**	**40.4**	1363	40.3	4	1365	40.3	1368	40.2	**1365**	**40.3**
481.wrf	4	**1047**	**42.7**	1036	43.1	1060	42.1	4	**1047**	**42.7**	1036	43.1	1060	42.1
482.sphinx3	4	1055	73.9	1056	73.8	**1055**	**73.9**	4	985	79.2	978	79.7	**983**	**79.3**

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.

BIOS configuration:
```

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General Notes (Continued)

```
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.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`

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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`

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:

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

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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