



SPEC[®] CFP2006 Result

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Fujitsu Siemens Computers

SPECfp[®]_rate2006 = 24.6

PRIMERGY TX150 S6, Intel Core 2 Duo E4600,
2.40 GHz

SPECfp_rate_base2006 = 23.4

CPU2006 license: 22

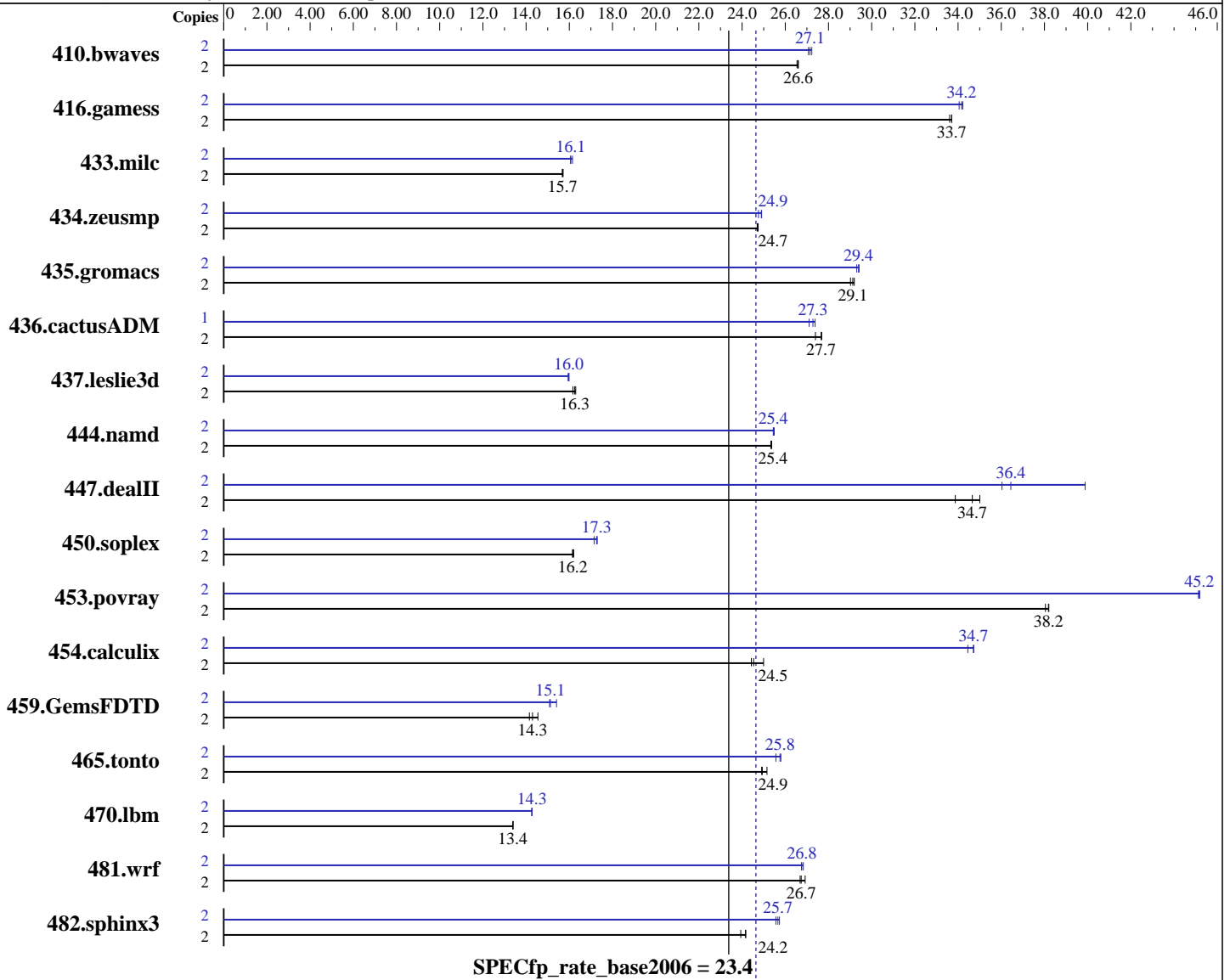
Test date: Feb-2008

Test sponsor: Fujitsu Siemens Computers

Hardware Availability: May-2008

Tested by: Fujitsu Siemens Computers

Software Availability: Nov-2007



Hardware

CPU Name: Intel Core 2 Duo E4600
 CPU Characteristics: 800 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: 2 MB I+D on chip per chip

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Software

Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP1,
 Kernel 2.6.16.46-0.12-smp
 Compiler: Intel C++ and Fortran Compiler
 for Linux32 and Linux64
 Version 10.1 - Build 20070725
 Auto Parallel: Yes
 File System: ext2
 System State: Multiuser, Runlevel 3
 Base Pointers: 64-bit

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L3 Cache: None
Other Cache: None
Memory: 4 GB (4x1 GB PC2-6400E, 2 rank, CAS 6-6-6, with ECC)
Disk Subsystem: Fujitsu MAY2036RC (SAS, 36GB, 10000rpm)
Other Hardware: None

Peak Pointers: 32/64-bit
Other Software: binutils-2.17.tar.gz, Version 2.17

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	2	1022	26.6	1022	26.6	1024	26.5	2	998	27.2	1001	27.1	1004	27.1
416.gamess	2	1165	33.6	1162	33.7	1162	33.7	2	1150	34.0	1144	34.2	1146	34.2
433.milc	2	1168	15.7	1171	15.7	1170	15.7	2	1137	16.1	1144	16.1	1142	16.1
434.zeusmp	2	736	24.7	737	24.7	736	24.7	2	731	24.9	731	24.9	735	24.8
435.gromacs	2	489	29.2	492	29.0	490	29.1	2	486	29.4	485	29.4	487	29.3
436.cactusADM	2	863	27.7	872	27.4	864	27.7	1	436	27.4	438	27.3	441	27.1
437.leslie3d	2	1157	16.3	1153	16.3	1163	16.2	2	1179	15.9	1176	16.0	1177	16.0
444.namd	2	632	25.4	633	25.3	633	25.4	2	630	25.4	630	25.4	629	25.5
447.dealII	2	654	35.0	660	34.7	676	33.9	2	574	39.9	628	36.4	635	36.0
450.soplex	2	1029	16.2	1032	16.2	1033	16.1	2	966	17.3	973	17.1	964	17.3
453.povray	2	280	38.0	279	38.2	279	38.2	2	235	45.2	236	45.2	236	45.1
454.calculix	2	675	24.4	672	24.5	660	25.0	2	475	34.7	479	34.5	475	34.7
459.GemsFDTD	2	1484	14.3	1499	14.2	1459	14.5	2	1407	15.1	1403	15.1	1377	15.4
465.tonto	2	782	25.2	790	24.9	789	24.9	2	770	25.6	764	25.8	763	25.8
470.lbm	2	2051	13.4	2053	13.4	2053	13.4	2	1926	14.3	1926	14.3	1926	14.3
481.wrf	2	836	26.7	837	26.7	830	26.9	2	832	26.8	835	26.8	835	26.7
482.sphinx3	2	1613	24.2	1613	24.2	1628	23.9	2	1519	25.7	1515	25.7	1525	25.6

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

Operating System Notes

'OMP_NUM_THREADS' set to number of cores (default)
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

General Notes

This result has been produced with binaries provided and compiled by Intel.

All binaries were built with 64-bit Intel compiler except:
437.leslie3d, 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 = Disable

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

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

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Base Optimization Flags (Continued)

Fortran benchmarks:

-fast

Benchmarks using both Fortran and C:

-fast

Peak Compiler Invocation

C benchmarks (except as noted below):

```
/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/bin/icc
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/include
```

433.milc: icc

C++ benchmarks (except as noted below):

icpc

```
450.soplex: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/bin/icpc
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/include
```

Fortran benchmarks (except as noted below):

ifort

```
437.leslie3d: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/bin/ifort
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/include
```

Benchmarks using both Fortran and C:

icc ifort

Peak 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
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 -fno-alias
-auto-ilp32

470.lbm: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2
-scalar-rep- -prefetch -opt-malloc-options=3

482.sphinx3: -fast -unroll2

C++ benchmarks:

444.namd: -prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias
-auto-ilp32

447.dealII: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2
-ansi-alias -scalar-rep-

450.soplex: -prof-gen(pass 1) -prof-use(pass 2) -fast
-opt-malloc-options=3

453.povray: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4
-ansi-alias

Fortran benchmarks:

410.bwaves: -fast -prefetch

416.gamess: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0
-ansi-alias -scalar-rep-

434.zeusmp: -prof-gen(pass 1) -prof-use(pass 2) -fast

437.leslie3d: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch
-opt-malloc-options=3

459.GemsFDTD: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0
-prefetch

465.tonto: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4 -auto

Benchmarks using both Fortran and C:

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Peak Optimization Flags (Continued)

435.gromacs: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch
-auto-ilp32

436.cactusADM: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2
-prefetch -parallel -auto-ilp32

454.calculix: -fast -unroll-aggressive -auto-ilp32

481.wrf: -fast -auto-ilp32

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

<http://www.spec.org/cpu2006/flags/Intel-ic10.1-FP-intel64-linux-flags.20090713.02.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic10.1-FP-intel64-linux-flags.20090713.02.xml>

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

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