# SPEC® CFP2006 Result



## Fujitsu Siemens Computers

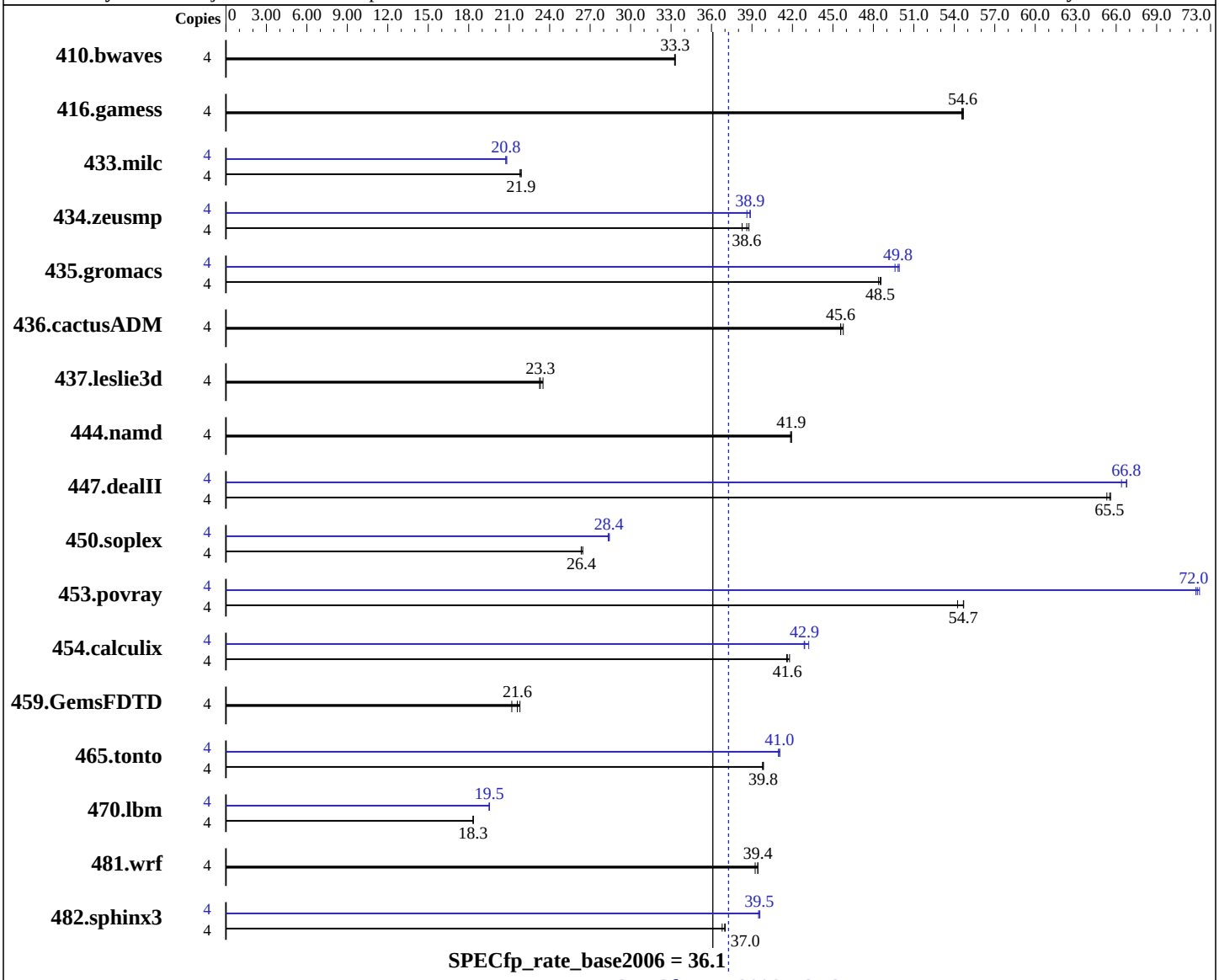
PRIMERGY RX300 S3, Intel Xeon processor 5130, 2.0 GHz

SPECfp®_rate2006 = 37.3

SPECfp_rate_base2006 = 36.1

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

**Test date:** May-2007
**Hardware Availability:** Jul-2006
**Software Availability:** Feb-2007




### Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon 5130 |
| CPU Characteristics: | 1333 MHz system bus |
| CPU MHz: | 2000 |
| FPU: | Integrated |
| CPU(s) enabled: | 4 cores, 2 chips, 2 cores/chip |
| CPU(s) orderable: | 1,2 chips |
| 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<br>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: | ext2 |

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L3 Cache: None
Other Cache: None
Memory: 8 GB (8x1 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

## Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 410.bwaves | 4 | 1634 | 33.3 | 1632 | 33.3 | **1633** | **33.3** | 4 | 1634 | 33.3 | 1632 | 33.3 | **1633** | **33.3** |
| 416.gamess | 4 | 1436 | 54.6 | 1433 | 54.7 | **1434** | **54.6** | 4 | 1436 | 54.6 | 1433 | 54.7 | **1434** | **54.6** |
| 433.milc | 4 | 1678 | 21.9 | **1678** | **21.9** | 1684 | 21.8 | 4 | **1769** | **20.8** | 1769 | 20.8 | 1763 | 20.8 |
| 434.zeusmp | 4 | 939 | 38.8 | **943** | **38.6** | 951 | 38.3 | 4 | 942 | 38.6 | 936 | 38.9 | **937** | **38.9** |
| 435.gromacs | 4 | 590 | 48.4 | **589** | **48.5** | 588 | 48.6 | 4 | 576 | 49.6 | 572 | 49.9 | **573** | **49.8** |
| 436.cactusADM | 4 | **1049** | **45.6** | 1049 | 45.6 | 1044 | 45.8 | 4 | **1049** | **45.6** | 1049 | 45.6 | 1044 | 45.8 |
| 437.leslie3d | 4 | 1599 | 23.5 | 1617 | 23.3 | **1613** | **23.3** | 4 | 1599 | 23.5 | 1617 | 23.3 | **1613** | **23.3** |
| 444.namd | 4 | 766 | 41.9 | **765** | **41.9** | 765 | 41.9 | 4 | 766 | 41.9 | **765** | **41.9** | 765 | 41.9 |
| 447.dealII | 4 | **698** | **65.5** | 701 | 65.3 | 698 | 65.6 | 4 | 685 | 66.8 | **685** | **66.8** | 689 | 66.4 |
| 450.soplex | 4 | 1267 | 26.3 | **1266** | **26.4** | 1261 | 26.5 | 4 | 1177 | 28.3 | 1173 | 28.4 | **1175** | **28.4** |
| 453.povray | 4 | 389 | 54.7 | **389** | **54.7** | 392 | 54.2 | 4 | 295 | 72.2 | 296 | 71.9 | **295** | **72.0** |
| 454.calculix | 4 | **793** | **41.6** | 790 | 41.8 | 794 | 41.6 | 4 | 764 | 43.2 | **769** | **42.9** | 770 | 42.9 |
| 459.GemsFDTD | 4 | 1947 | 21.8 | 2003 | 21.2 | **1964** | **21.6** | 4 | 1947 | 21.8 | 2003 | 21.2 | **1964** | **21.6** |
| 465.tonto | 4 | 988 | 39.9 | **988** | **39.8** | 989 | 39.8 | 4 | 959 | 41.1 | 961 | 41.0 | **959** | **41.0** |
| 470.lbm | 4 | 2996 | 18.3 | 2999 | 18.3 | **2998** | **18.3** | 4 | 2816 | 19.5 | 2813 | 19.5 | **2815** | **19.5** |
| 481.wrf | 4 | 1133 | 39.4 | 1139 | 39.2 | **1133** | **39.4** | 4 | 1133 | 39.4 | 1139 | 39.2 | **1133** | **39.4** |
| 482.sphinx3 | 4 | 2119 | 36.8 | 2106 | 37.0 | **2108** | **37.0** | 4 | 1969 | 39.6 | 1974 | 39.5 | **1971** | **39.5** |

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 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.

The PRIMERGY RX300 S3 and the PRIMERGY TX300 S3 are electronically equivalent.
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## General Notes (Continued)

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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

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:
/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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