SPEC® CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

PRIMERGY BX620 S3, Intel Xeon processor E5335, 2.0 GHz

$SPECfp^{®}\_rate2006 =$ 53.7

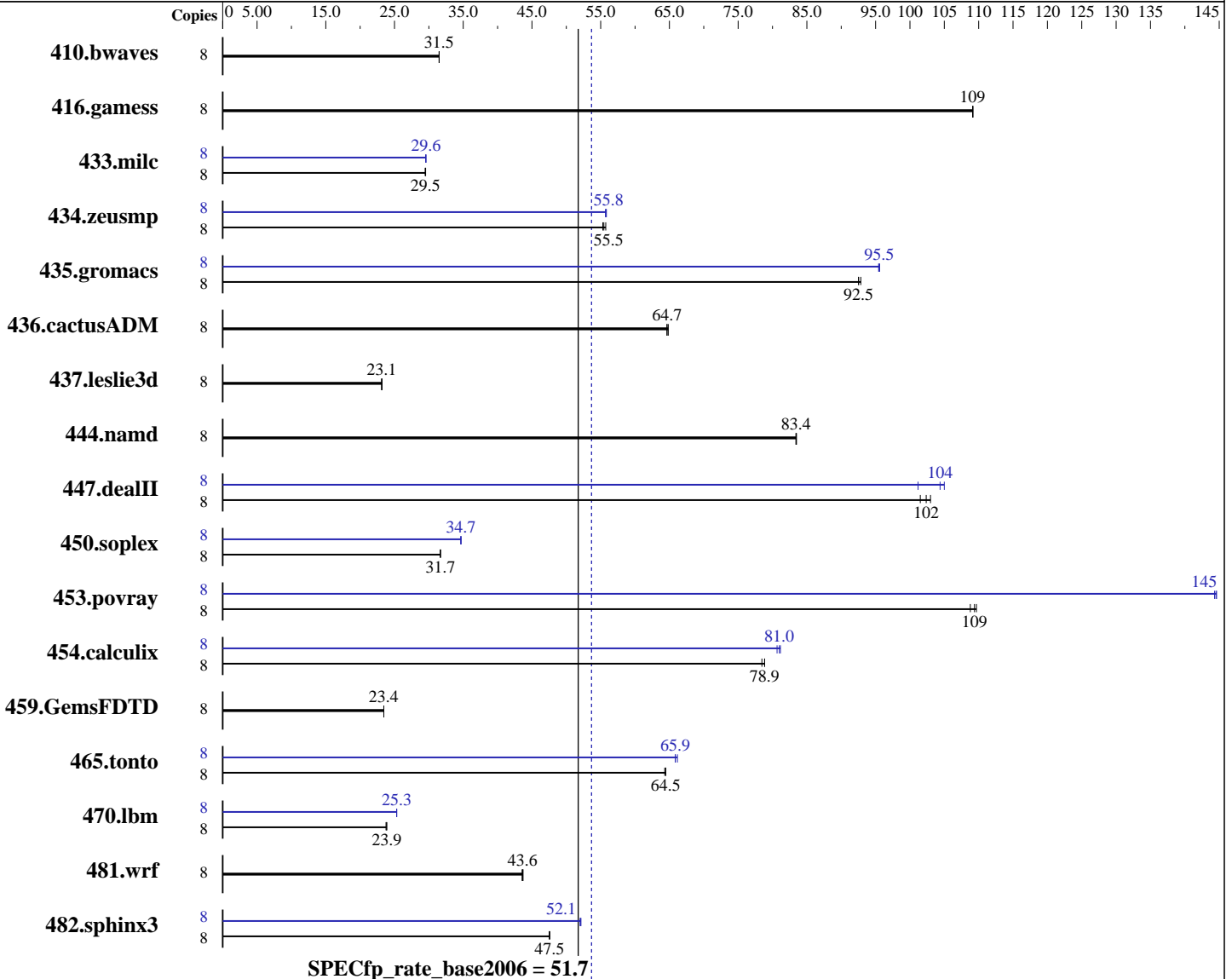SPECfp_rate_base2006 = 51.7

CPU2006 license: 22

Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Apr-2007

Hardware Availability: Feb-2007

Software Availability: Feb-2007

Benchmark	Copies	Result
410.bwaves	8	31.5
416.gamess	8	109
433.milc	8	29.6
433.milc	8	29.5
434.zeusmp	8	55.8
434.zeusmp	8	55.5
435.gromacs	8	95.5
435.gromacs	8	92.5
436.cactusADM	8	64.7
437.leslie3d	8	23.1
444.namd	8	83.4
447.dealII	8	104
447.dealII	8	102
450.soplex	8	34.7
450.soplex	8	31.7
453.povray	8	145
453.povray	8	109
454.calculix	8	81.0
454.calculix	8	78.9
459.GemsFDTD	8	23.4
465.tonto	8	65.9
465.tonto	8	64.5
470.lbm	8	25.3
470.lbm	8	23.9
481.wrf	8	43.6
482.sphinx3	8	52.1
482.sphinx3	8	47.5

SPECfp_rate_base2006 = 51.7

SPECfp_rate2006 = 53.7

Hardware

CPU Name: Intel Xeon E5335
CPU Characteristics: 1333 MHz system bus
CPU MHz: 2000
FPU: Integrated
CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip
CPU(s) orderable: 1,2 chips
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 8 MB I+D on chip per chip, 4 MB shared / 2 cores

Continued on next page

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: ext2

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

PRIMERGY BX620 S3, Intel Xeon processor E5335, 2.0 GHz

SPECfp_rate2006 =	53.7
SPECfp_rate_base2006 =	51.7

CPU2006 license: 22

Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Apr-2007

Hardware Availability: Feb-2007

Software Availability: Feb-2007

L3 Cache:	None
Other Cache:	None
Memory:	16 GB (8x2 GB DDR2 PC2-5300F, 2 rank, CAS 5-5-5, with ECC)
Disk Subsystem:	SAS (36GB 10000 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	8	3453	31.5	**3451**	**31.5**	3451	31.5	8	3453	31.5	**3451**	**31.5**	3451	31.5
416.gamess	8	1435	109	**1435**	**109**	1436	109	8	1435	109	**1435**	**109**	1436	109
433.milc	8	2492	29.5	2487	29.5	**2490**	**29.5**	8	2485	29.6	2484	29.6	**2484**	**29.6**
434.zeusmp	8	1316	55.3	**1313**	**55.5**	1306	55.7	8	**1305**	**55.8**	1307	55.7	1304	55.8
435.gromacs	8	617	92.5	**617**	**92.5**	615	92.9	8	**598**	**95.5**	598	95.4	597	95.6
436.cactusADM	8	1474	64.8	**1478**	**64.7**	1479	64.6	8	1474	64.8	**1478**	**64.7**	1479	64.6
437.leslie3d	8	3252	23.1	**3249**	**23.1**	3245	23.2	8	3252	23.1	**3249**	**23.1**	3245	23.2
444.namd	8	768	83.5	**769**	**83.4**	769	83.4	8	768	83.5	**769**	**83.4**	769	83.4
447.dealII	8	889	103	902	102	**894**	**102**	8	**877**	**104**	872	105	905	101
450.soplex	8	2106	31.7	2107	31.7	**2106**	**31.7**	8	1925	34.7	1924	34.7	**1925**	**34.7**
453.povray	8	388	110	**389**	**109**	391	109	8	294	145	295	144	**294**	**145**
454.calculix	8	**837**	**78.9**	841	78.5	837	78.9	8	813	81.2	**815**	**81.0**	818	80.7
459.GemsFDTD	8	3621	23.4	3620	23.4	**3620**	**23.4**	8	3621	23.4	3620	23.4	**3620**	**23.4**
465.tonto	8	1224	64.3	1221	64.5	**1221**	**64.5**	8	1190	66.2	1195	65.9	**1195**	**65.9**
470.lbm	8	**4607**	**23.9**	4606	23.9	4626	23.8	8	4343	25.3	**4341**	**25.3**	4341	25.3
481.wrf	8	2045	43.7	2051	43.6	**2047**	**43.6**	8	2045	43.7	2051	43.6	**2047**	**43.6**
482.sphinx3	8	3281	47.5	3276	47.6	**3279**	**47.5**	8	2998	52.0	**2995**	**52.1**	2991	52.1

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.

BIOS configuration:

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

PRIMERGY BX620 S3, Intel Xeon processor E5335, 2.0 GHz

SPECfp_rate2006 =   53.7

SPECfp_rate_base2006 = 51.7

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

General Notes (Continued)

```
Hardware Prefetch = Disable, Adjacent Sector Prefetch = Disable

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

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

PRIMERGY BX620 S3, Intel Xeon processor E5335, 2.0 GHz

SPECfp_rate2006 =   53.7

SPECfp_rate_base2006 = 51.7

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

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
```

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

PRIMERGY BX620 S3, Intel Xeon processor E5335, 2.0 GHz

SPECfp_rate2006 =   53.7

SPECfp_rate_base2006 =   51.7

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

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

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`

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu Siemens Computers

PRIMERGY BX620 S3, Intel Xeon processor E5335, 2.0 GHz

$SPECfp\_rate2006 = \quad 53.7$

$SPECfp\_rate\_base2006 = \quad 51.7$

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

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

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.0.
Report generated on Tue Jul 22 11:36:27 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 2 May 2007.