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

Fujitsu

PRIMERGY BX920 S1, Intel Xeon X5570, 2.93 GHz

$SPECfp^®\_rate2006 =$ 199

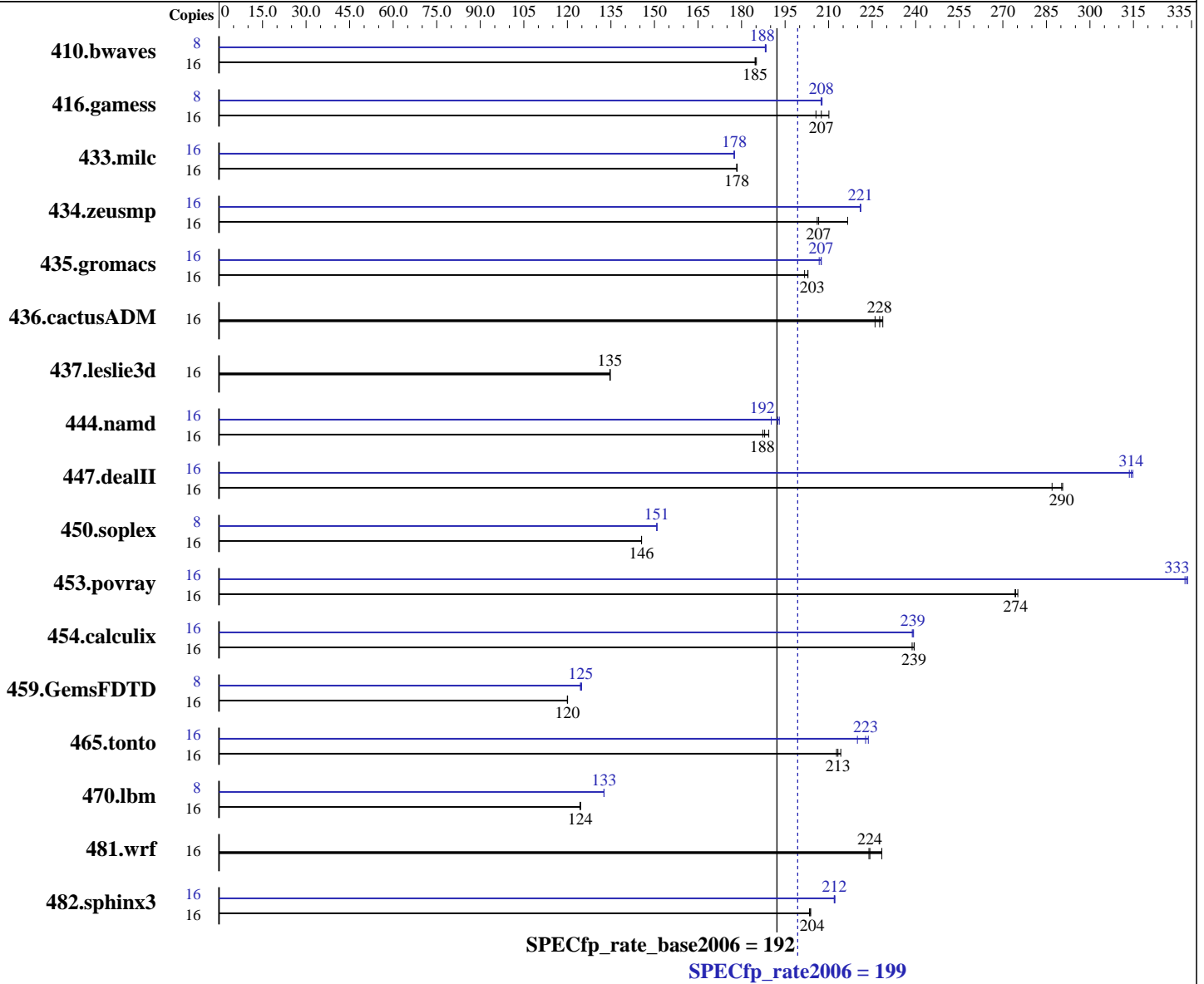$SPECfp\_rate\_base2006 =$ 192

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: Mar-2009
Hardware Availability: May-2009
Software Availability: Feb-2009

Benchmark	Copies	Result
410.bwaves	8	188
	16	185
416.gamess	8	208
	16	207
433.milc	16	178
	16	178
434.zeusmp	16	221
	16	207
435.gromacs	16	207
	16	203
436.cactusADM	16	228
437.leslie3d	16	135
444.namd	16	192
	16	188
447.dealII	16	314
	16	290
450.soplex	8	151
	16	146
453.povray	16	333
	16	274
454.calculix	16	239
	16	239
459.GemsFDTD	8	125
	16	120
465.tonto	16	223
	16	213
470.lbm	8	133
	16	124
481.wrf	16	224
482.sphinx3	16	212
	16	204

SPECfp_rate_base2006 = 192

SPECfp_rate2006 = 199

Hardware
CPU Name: Intel Xeon X5570
CPU Characteristics: Intel Turbo Boost Technology up to 3.33 GHz
CPU MHz: 2933
FPU: Integrated
CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip, 2 threads/core
CPU(s) orderable: 1,2 chips
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 256 KB I+D on chip per core

Continued on next page

Software
Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP2 with patch Linux kernel 20090119, Kernel 2.6.16.60-0.34-smp
Compiler: Intel C++ and Fortran Compiler 11.0 for Linux Build 20090131 Package ID: l_cproc_p_11.0.080, l_cprof_p_11.0.080
Auto Parallel: No
File System: ext3
System State: Multi-User Run Level 3

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX920 S1, Intel Xeon X5570, 2.93 GHz

$SPECfp\_rate2006 =$ 199

$SPECfp\_rate\_base2006 =$ 192

CPU2006 license: 19	**Test date:** Mar-2009
Test sponsor: Fujitsu	**Hardware Availability:** May-2009
Tested by: Fujitsu	**Software Availability:** Feb-2009

L3 Cache:	8 MB I+D on chip per chip	Base Pointers:	64-bit
Other Cache:	None	Peak Pointers:	32/64-bit
Memory:	48 GB (6x8 GB PC3-10600R, 2 rank, CL9-9-9, ECC)	Other Software:	Binutils 2.18.50.0.7.20080502
Disk Subsystem:	1 x SAS, 73 GB, 10000 RPM		
Other Hardware:	None		

Results Table

Benchmark	Base Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Peak Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	16	1177	185	1175	185	**1177**	**185**	8	**578**	**188**	577	188	578	188
416.gamess	16	**1510**	**207**	1491	210	1524	206	8	**755**	**208**	755	207	754	208
433.milc	16	824	178	823	179	**823**	**178**	16	**827**	**178**	828	177	827	178
434.zeusmp	16	**705**	**207**	672	217	707	206	16	659	221	659	221	**659**	**221**
435.gromacs	16	566	202	563	203	**563**	**203**	16	551	207	553	207	**551**	**207**
436.cactusADM	16	846	226	836	229	**840**	**228**	16	846	226	836	229	**840**	**228**
437.leslie3d	16	**1117**	**135**	1116	135	1117	135	16	**1117**	**135**	1116	135	1117	135
444.namd	16	**683**	**188**	678	189	685	187	16	**667**	**192**	675	190	665	193
447.dealII	16	**631**	**290**	630	291	638	287	16	581	315	584	314	**583**	**314**
450.soplex	16	917	146	**917**	**146**	917	146	8	**442**	**151**	442	151	442	151
453.povray	16	**310**	**274**	309	275	310	274	16	255	334	256	333	**255**	**333**
454.calculix	16	551	239	**551**	**239**	553	239	16	553	239	**552**	**239**	552	239
459.GemsFDTD	16	1415	120	**1414**	**120**	1414	120	8	680	125	**681**	**125**	682	124
465.tonto	16	**738**	**213**	740	213	735	214	16	704	224	**707**	**223**	716	220
470.lbm	16	1765	125	**1766**	**124**	1768	124	8	**829**	**133**	829	133	829	133
481.wrf	16	783	228	**797**	**224**	798	224	16	783	228	**797**	**224**	798	224
482.sphinx3	16	1530	204	**1532**	**204**	1533	203	16	**1471**	**212**	1470	212	1471	212

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

Submit Notes

The config file option 'submit' was used.
numactl was used to bind copies to the cores

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

General Notes

For information about Fujitsu please visit: http://www.fujitsu.com

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX920 S1, Intel Xeon X5570, 2.93 GHz

$SPECfp\_rate2006 =$ 199

$SPECfp\_rate\_base2006 =$ 192

CPU2006 license: 19	**Test date:** Mar-2009
Test sponsor: Fujitsu	**Hardware Availability:** May-2009
Tested by: Fujitsu	**Software Availability:** Feb-2009

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:
    -xSSE4.2 -ipo -O3 -no-prec-div -static

C++ benchmarks:
    -xSSE4.2 -ipo -O3 -no-prec-div -static

Fortran benchmarks:
    -xSSE4.2 -ipo -O3 -no-prec-div -static

Benchmarks using both Fortran and C:
    -xSSE4.2 -ipo -O3 -no-prec-div -static

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX920 S1, Intel Xeon X5570, 2.93 GHz

$SPECfp\_rate2006 =$ 199

$SPECfp\_rate\_base2006 =$ 192

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: Mar-2009
Hardware Availability: May-2009
Software Availability: Feb-2009

Peak Compiler Invocation

C benchmarks (except as noted below):
    `icc`

    482.sphinx3: `icc -m32`

C++ benchmarks (except as noted below):
    `icpc`

     450.soplex: `icpc -m32`

Fortran benchmarks:
    `ifort`

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`
         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`
             470.lbm: `-DSPEC_CPU_LP64`
               481.wrf: `-DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX`

Peak Optimization Flags

C benchmarks:

        433.milc: `-xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)`
                `-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)`
                `-fno-alias`

        470.lbm: `-xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch`
                `-auto-ilp32`

Continued on next page

Fujitsu

PRIMERGY BX920 S1, Intel Xeon X5570, 2.93 GHz

$SPECfp\_rate2006 =$ 199

$SPECfp\_rate\_base2006 =$ 192

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: Mar-2009
Hardware Availability: May-2009
Software Availability: Feb-2009

Peak Optimization Flags (Continued)

```
      482.sphinx3: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2
```

C++ benchmarks:

```
        444.namd: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
                  -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
                  -fno-alias -auto-ilp32

       447.dealII: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
                  -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
                  -unroll2 -ansi-alias -scalar-rep-

        450.soplex: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
                  -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
                  -opt-malloc-options=3

       453.povray: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
                  -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
                  -unroll4 -ansi-alias
```

Fortran benchmarks:

```
       410.bwaves: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

       416.gamess: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
                  -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
                  -unroll2 -Ob0 -ansi-alias -scalar-rep-

       434.zeusmp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
                  -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)

      437.leslie3d: basepeak = yes

     459.GemsFDTD: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
                  -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
                  -unroll2 -Ob0 -opt-prefetch

        465.tonto: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
                  -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
                  -unroll4 -auto
```

Benchmarks using both Fortran and C:

```
      435.gromacs: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
                  -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
                  -opt-prefetch -auto-ilp32

     436.cactusADM: basepeak = yes
```

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX920 S1, Intel Xeon X5570, 2.93 GHz

$SPECfp_rate2006 = $ 199

$SPECfp_rate_base2006 = $ 192

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: Mar-2009
Hardware Availability: May-2009
Software Availability: Feb-2009

Peak Optimization Flags (Continued)

454.calculix: `-xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32`

481.wrf: `basepeak = yes`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic11.0-fp-linux64-revA.20090710.04.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic11.0-fp-linux64-revA.20090710.04.xml`

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

Tested with SPEC CPU2006 v1.1.
Report generated on Tue Jul 22 23:52:48 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 12 May 2009.