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

Fujitsu

PRIMERGY BX620 S5, Intel Xeon E5506, 2.13 GHz

$SPECfp^{®}2006 =$ 26.4

$SPECfp\_base2006 =$ 24.9

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

Results chart (scale 0 to 125):

- **410.bwaves** 66.4
- **416.gamess** 17.6 / 16.4
- **433.milc** 25.0
- **434.zeusmp** 21.6
- **435.gromacs** 15.5 / 15.3
- **436.cactusADM** 122 / 122
- **437.leslie3d** 22.2
- **444.namd** 12.7
- **447.dealII** 24.1 / 22.7
- **450.soplex** 19.2 / 18.6
- **453.povray** 24.3 / 19.2
- **454.calculix** 19.2 / 18.5
- **459.GemsFDTD** 45.3 / 29.4
- **465.tonto** 19.4 / 17.2
- **470.lbm** 37.0
- **481.wrf** 27.7 / 27.7
- **482.sphinx3** 23.0 / 23.0

SPECfp_base2006 = 24.9

SPECfp2006 = 26.4

Hardware

CPU Name:	Intel Xeon E5506
CPU Characteristics:	
CPU MHz:	2133
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:	256 KB I+D on chip per core

Continued on next page

Software

Operating System:	SUSE Linux Enterprise Server 10 (x86_64) SP2, Kernel 2.6.16.60-0.21-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:	Yes
File System:	ext3
System State:	Multi-User Run Level 3
Base Pointers:	64-bit

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX620 S5, Intel Xeon E5506, 2.13 GHz

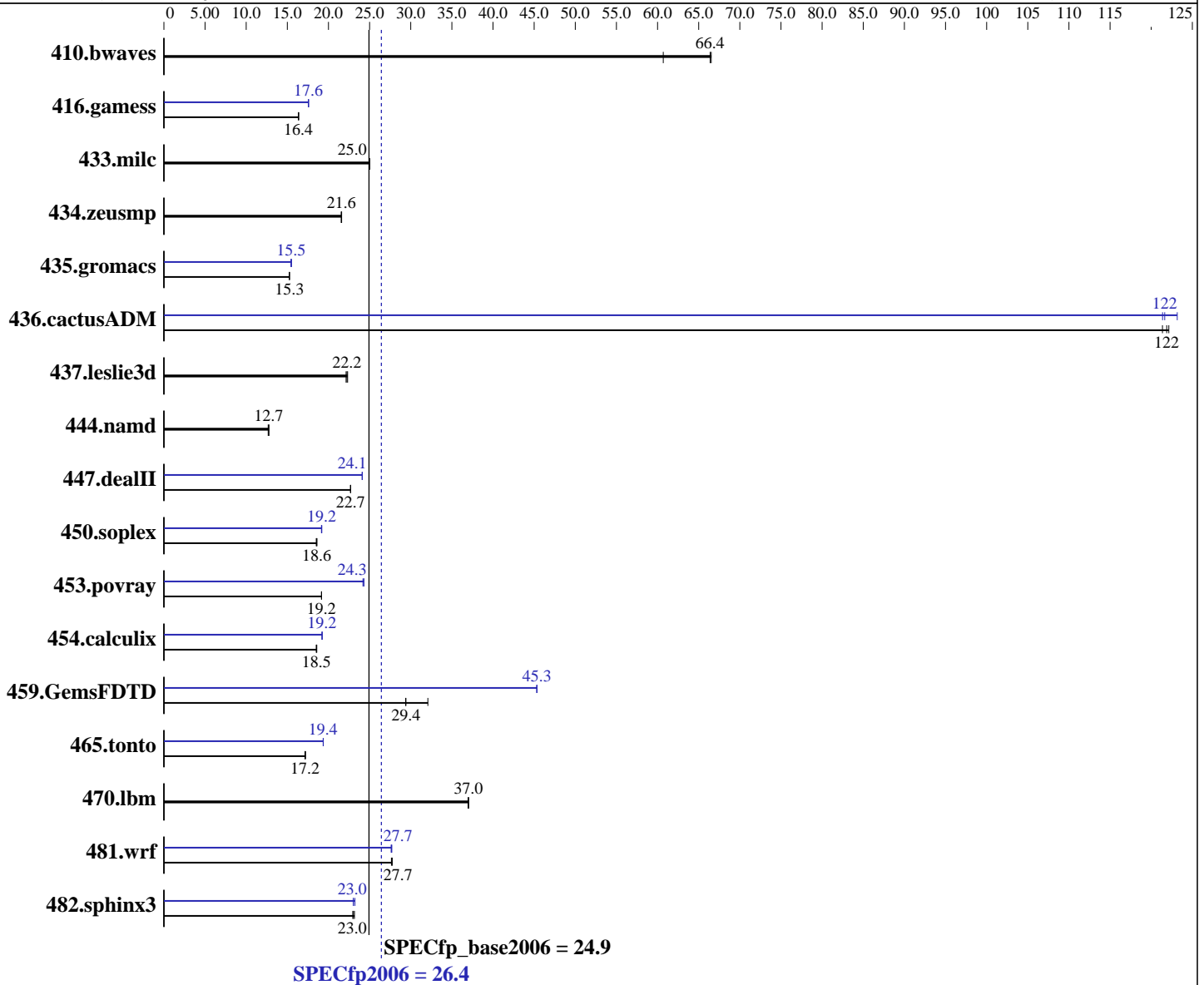|	
SPECfp2006 =	26.4
SPECfp_base2006 =	24.9

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

Test date: Sep-2009
Hardware Availability: Apr-2009
Software Availability: Feb-2009

L3 Cache:	4 MB I+D on chip per chip
Other Cache:	None
Memory:	48 GB (12x4 GB PC3-8500R, 2 rank, CL7-7-7, ECC, see add'l detail in notes)
Disk Subsystem:	1 x SATA, 250 GB, 7200 RPM
Other Hardware:	None

Peak Pointers:	32/64-bit
Other Software:	Binutils 2.18.50.0.7.20080502

Results Table

	Base						Peak					
Benchmark	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
410.bwaves	224	60.7	204	66.5	**205**	**66.4**	224	60.7	204	66.5	**205**	**66.4**
416.gamess	**1197**	**16.4**	1196	16.4	1197	16.4	1115	17.6	1114	17.6	**1114**	**17.6**
433.milc	367	25.0	368	24.9	**367**	**25.0**	367	25.0	368	24.9	**367**	**25.0**
434.zeusmp	422	21.5	**422**	**21.6**	421	21.6	422	21.5	**422**	**21.6**	421	21.6
435.gromacs	468	15.3	468	15.2	**468**	**15.3**	460	15.5	462	15.4	**462**	**15.5**
436.cactusADM	**98.0**	**122**	97.8	122	98.5	121	**98.2**	**122**	98.5	121	97.0	123
437.leslie3d	421	22.3	**423**	**22.2**	425	22.1	421	22.3	**423**	**22.2**	425	22.1
444.namd	629	12.8	**629**	**12.7**	633	12.7	629	12.8	**629**	**12.7**	633	12.7
447.dealII	504	22.7	**504**	**22.7**	505	22.7	**474**	**24.1**	475	24.1	474	24.1
450.soplex	449	18.6	**449**	**18.6**	450	18.5	436	19.1	**435**	**19.2**	435	19.2
453.povray	**278**	**19.2**	278	19.2	278	19.1	220	24.2	219	24.3	**219**	**24.3**
454.calculix	446	18.5	444	18.6	**445**	**18.5**	**429**	**19.2**	429	19.2	429	19.2
459.GemsFDTD	**361**	**29.4**	361	29.4	331	32.1	**234**	**45.3**	234	45.3	234	45.3
465.tonto	571	17.2	**574**	**17.2**	574	17.1	508	19.4	**508**	**19.4**	508	19.4
470.lbm	372	37.0	371	37.0	**371**	**37.0**	372	37.0	371	37.0	**371**	**37.0**
481.wrf	404	27.7	403	27.7	**403**	**27.7**	404	27.6	403	27.7	**404**	**27.7**
482.sphinx3	849	23.0	**846**	**23.0**	842	23.2	**846**	**23.0**	847	23.0	839	23.2

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

Platform Notes

The system automatically configures the memory to run at 800 MHz.

General Notes

OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to granularity=fine,scatter
KMP_STACKSIZE set to 200M
For information about Fujitsu please visit: http://www.fujitsu.com

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX620 S5, Intel Xeon E5506, 2.13 GHz

SPECfp2006 =	26.4
SPECfp_base2006 =	24.9

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

Test date: Sep-2009
Hardware Availability: Apr-2009
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 -parallel -opt-prefetch
```

C++ benchmarks:
```
-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
```

Fortran benchmarks:
```
-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch
```

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

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX620 S5, Intel Xeon E5506, 2.13 GHz

SPECfp2006 =	26.4
SPECfp_base2006 =	24.9

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

Test date: Sep-2009
Hardware Availability: Apr-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: `basepeak = yes`

    470.lbm: `basepeak = yes`

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

C++ benchmarks:

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX620 S5, Intel Xeon E5506, 2.13 GHz

$SPECfp2006 =$ 26.4

$SPECfp\_base2006 =$ 24.9

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

Test date: Sep-2009
Hardware Availability: Apr-2009
Software Availability: Feb-2009

Peak Optimization Flags (Continued)

444.namd: basepeak = yes

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- -opt-prefetch

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: basepeak = yes

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: basepeak = yes

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 -parallel

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: -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 -opt-prefetch -parallel -auto-ilp32

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

481.wrf: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch
-parallel -auto-ilp32

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX620 S5, Intel Xeon E5506, 2.13 GHz

SPECfp2006 =	26.4
SPECfp_base2006 =	24.9

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

Test date: Sep-2009
Hardware Availability: Apr-2009
Software Availability: Feb-2009

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.20091013.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.20091013.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 Wed Jul 23 04:21:51 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 28 October 2009.