SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX922 S2, Intel Xeon L5609, 1.87 GHz

$SPECfp^{®}\_rate2006 =$ 65.4

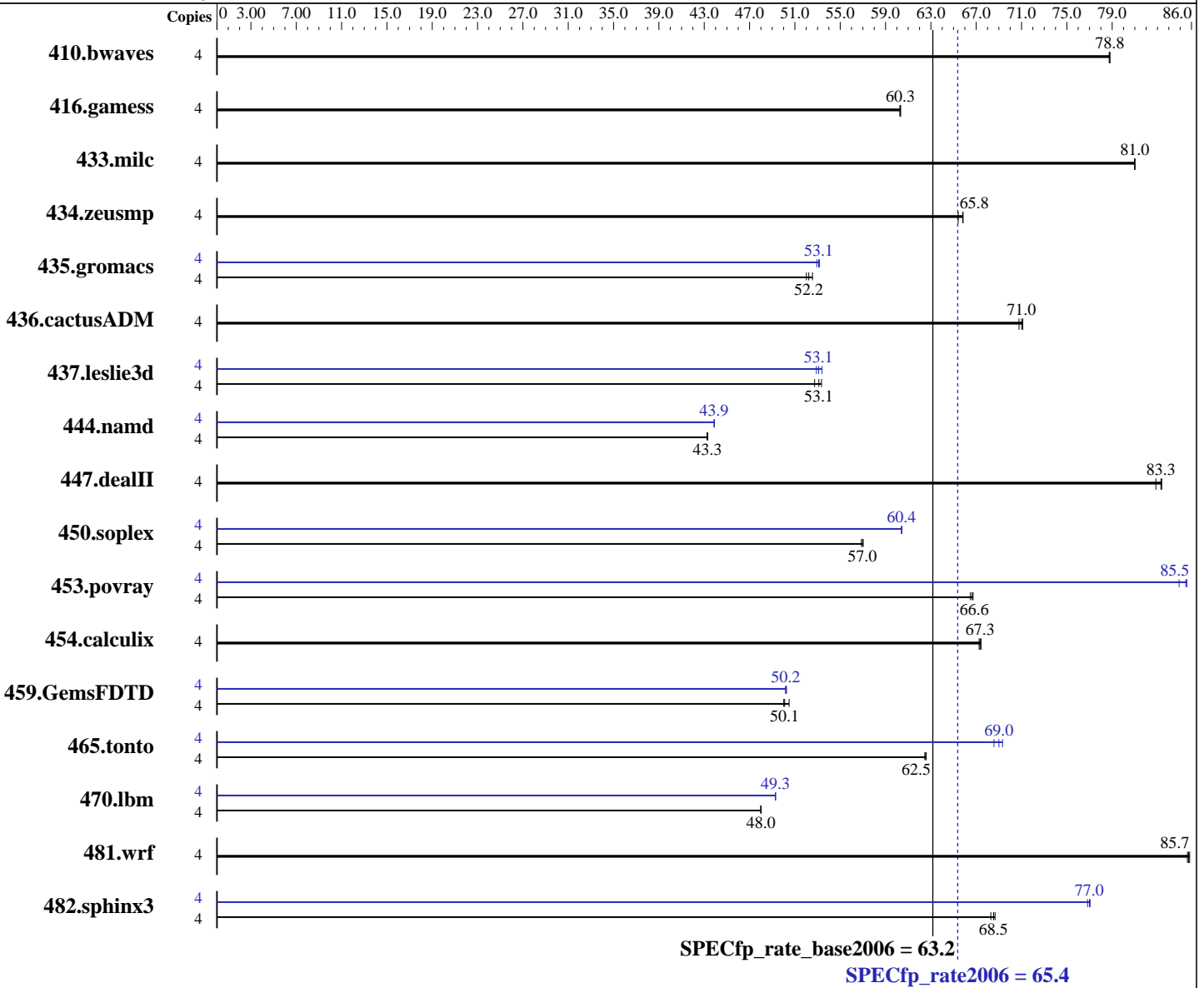$SPECfp\_rate\_base2006 =$ 63.2

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

Test date: Jun-2010
Hardware Availability: Mar-2010
Software Availability: Jan-2010

Benchmark	Copies	Result
410.bwaves	4	78.8
416.gamess	4	60.3
433.milc	4	81.0
434.zeusmp	4	65.8
435.gromacs	4	53.1
435.gromacs	4	52.2
436.cactusADM	4	71.0
437.leslie3d	4	53.1
437.leslie3d	4	53.1
444.namd	4	43.9
444.namd	4	43.3
447.dealII	4	83.3
450.soplex	4	60.4
450.soplex	4	57.0
453.povray	4	85.5
453.povray	4	66.6
454.calculix	4	67.3
459.GemsFDTD	4	50.2
459.GemsFDTD	4	50.1
465.tonto	4	69.0
465.tonto	4	62.5
470.lbm	4	49.3
470.lbm	4	48.0
481.wrf	4	85.7
482.sphinx3	4	77.0
482.sphinx3	4	68.5

SPECfp_rate_base2006 = 63.2

SPECfp_rate2006 = 65.4

Hardware

CPU Name: Intel Xeon L5609
CPU Characteristics:
CPU MHz: 1867
FPU: Integrated
CPU(s) enabled: 4 cores, 1 chip, 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 11 (x86_64), Kernel 2.6.27.19-5-default
Compiler: Intel C++ and Fortran Professional Compiler for IA32 and Intel 64, Version 11.1 Build 20091130 Package ID: l_cproc_p_11.1.064, l_cprof_p_11.1.064
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 BX922 S2, Intel Xeon L5609, 1.87 GHz

$SPECfp\_rate2006 =$ 65.4

$SPECfp\_rate\_base2006 =$ 63.2

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

Test date: Jun-2010	
Hardware Availability: Mar-2010	
Software Availability: Jan-2010	

L3 Cache:	12 MB I+D on chip per chip
Other Cache:	None
Memory:	24 GB (6x4 GB PC3-10600R, 2 rank, CL9-9-9, ECC, see add'l detail in notes)
Disk Subsystem:	1 x SSD SATA, 64 GB
Other Hardware:	None

Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	None

Results Table

Benchmark	Copies	Base Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Peak Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	690	78.7	690	78.8	**690**	**78.8**	4	690	78.7	690	78.8	**690**	**78.8**
416.gamess	4	**1299**	**60.3**	1298	60.3	1300	60.3	4	**1299**	**60.3**	1298	60.3	1300	60.3
433.milc	4	453	81.0	**453**	**81.0**	453	81.0	4	453	81.0	**453**	**81.0**	453	81.0
434.zeusmp	4	556	65.4	553	65.8	**553**	**65.8**	4	556	65.4	553	65.8	**553**	**65.8**
435.gromacs	4	**547**	**52.2**	543	52.6	549	52.0	4	540	52.9	**538**	**53.1**	537	53.2
436.cactusADM	4	672	71.1	675	70.8	**673**	**71.0**	4	672	71.1	675	70.8	**673**	**71.0**
437.leslie3d	4	705	53.3	**708**	**53.1**	713	52.7	4	**708**	**53.1**	711	52.9	704	53.4
444.namd	4	741	43.3	742	43.2	**741**	**43.3**	4	731	43.9	**731**	**43.9**	731	43.9
447.dealII	4	**549**	**83.3**	549	83.4	552	82.9	4	**549**	**83.3**	549	83.4	552	82.9
450.soplex	4	**586**	**57.0**	585	57.0	587	56.9	4	552	60.4	552	60.4	**552**	**60.4**
453.povray	4	320	66.5	**319**	**66.6**	319	66.7	4	249	85.6	**249**	**85.5**	251	84.9
454.calculix	4	**490**	**67.3**	489	67.4	491	67.3	4	**490**	**67.3**	489	67.4	491	67.3
459.GemsFDTD	4	840	50.5	849	50.0	**847**	**50.1**	4	**845**	**50.2**	844	50.3	846	50.2
465.tonto	4	**629**	**62.5**	630	62.5	629	62.6	4	**570**	**69.0**	574	68.6	568	69.3
470.lbm	4	1144	48.0	**1145**	**48.0**	1146	48.0	4	**1115**	**49.3**	1115	49.3	1115	49.3
481.wrf	4	**521**	**85.7**	522	85.6	521	85.8	4	**521**	**85.7**	522	85.6	521	85.8
482.sphinx3	4	1142	68.3	**1137**	**68.5**	1135	68.7	4	**1013**	**77.0**	1012	77.1	1015	76.8

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
```

Platform Notes

```
   The system automatically configures the memory to run at 1067 MHz.
   BIOS configuration:
   Data Reuse Optimization = Disabled
```

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX922 S2, Intel Xeon L5609, 1.87 GHz

$SPECfp_rate2006 = $ 65.4

$SPECfp_rate_base2006 = $ 63.2

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

Test date: Jun-2010
Hardware Availability: Mar-2010
Software Availability: Jan-2010

General Notes

```
For information about Fujitsu please visit: http://www.fujitsu.com
Binaries were compiled on SLES 10 with Binutils 2.18.50.0.7.20080502
```

Base Compiler Invocation

C benchmarks:
```
icc   -m64
```

C++ benchmarks:
```
icpc  -m64
```

Fortran benchmarks:
```
ifort -m64
```

Benchmarks using both Fortran and C:
```
icc   -m64 ifort -m64
```

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
```

Fujitsu

PRIMERGY BX922 S2, Intel Xeon L5609, 1.87 GHz

$SPECfp\_rate2006 =$ 65.4

$SPECfp\_rate\_base2006 =$ 63.2

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

Test date: Jun-2010
Hardware Availability: Mar-2010
Software Availability: Jan-2010

Base Optimization Flags (Continued)

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

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

Peak Compiler Invocation

C benchmarks (except as noted below):
```
icc   -m64
```

482.sphinx3: `icc -m32`

C++ benchmarks (except as noted below):
```
icpc  -m64
```

450.soplex: `icpc -m32`

Fortran benchmarks:
```
ifort -m64
```

Benchmarks using both Fortran and C:
```
icc   -m64 ifort -m64
```

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`

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX922 S2, Intel Xeon L5609, 1.87 GHz

$SPECfp_rate2006 = $ 65.4

$SPECfp_rate_base2006 = $ 63.2

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

Test date: Jun-2010
Hardware Availability: Mar-2010
Software Availability: Jan-2010

Peak Optimization Flags

C benchmarks:

> 433.milc: basepeak = yes
>
> 470.lbm: `-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 -ansi-alias -auto-ilp32`
>
> 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: basepeak = yes
>
> 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: basepeak = yes
>
> 434.zeusmp: basepeak = yes
>
> 437.leslie3d: `-xSSE4.2 -ipo -O3 -no-prec-div -static`
>
> 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`
>
> 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 -inline-calloc -opt-malloc-options=3`

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`

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY BX922 S2, Intel Xeon L5609, 1.87 GHz

$SPECfp\_rate2006 = \qquad 65.4$

$SPECfp\_rate\_base2006 = \quad 63.2$

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

Test date: Jun-2010
Hardware Availability: Mar-2010
Software Availability: Jan-2010

Peak Optimization Flags (Continued)

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

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-ic11.1-linux64-revE.20100708.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100708.xml

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 v1.1.
Report generated on Wed Jul 23 10:58:09 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 3 August 2010.