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

Fujitsu

PRIMERGY RX300 S5, Intel Xeon W5590, 3.33 GHz

$SPECfp®\_rate2006 =$ 108

$SPECfp\_rate\_base2006 =$ 105

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

SPECfp_rate_base2006 = 105

SPECfp_rate2006 = 108

Hardware

CPU Name:	Intel Xeon W5590
CPU Characteristics:	Intel Turbo Boost Technology up to 3.60 GHz
CPU MHz:	3333
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 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, 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:	No
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 RX300 S5, Intel Xeon W5590, 3.33 GHz

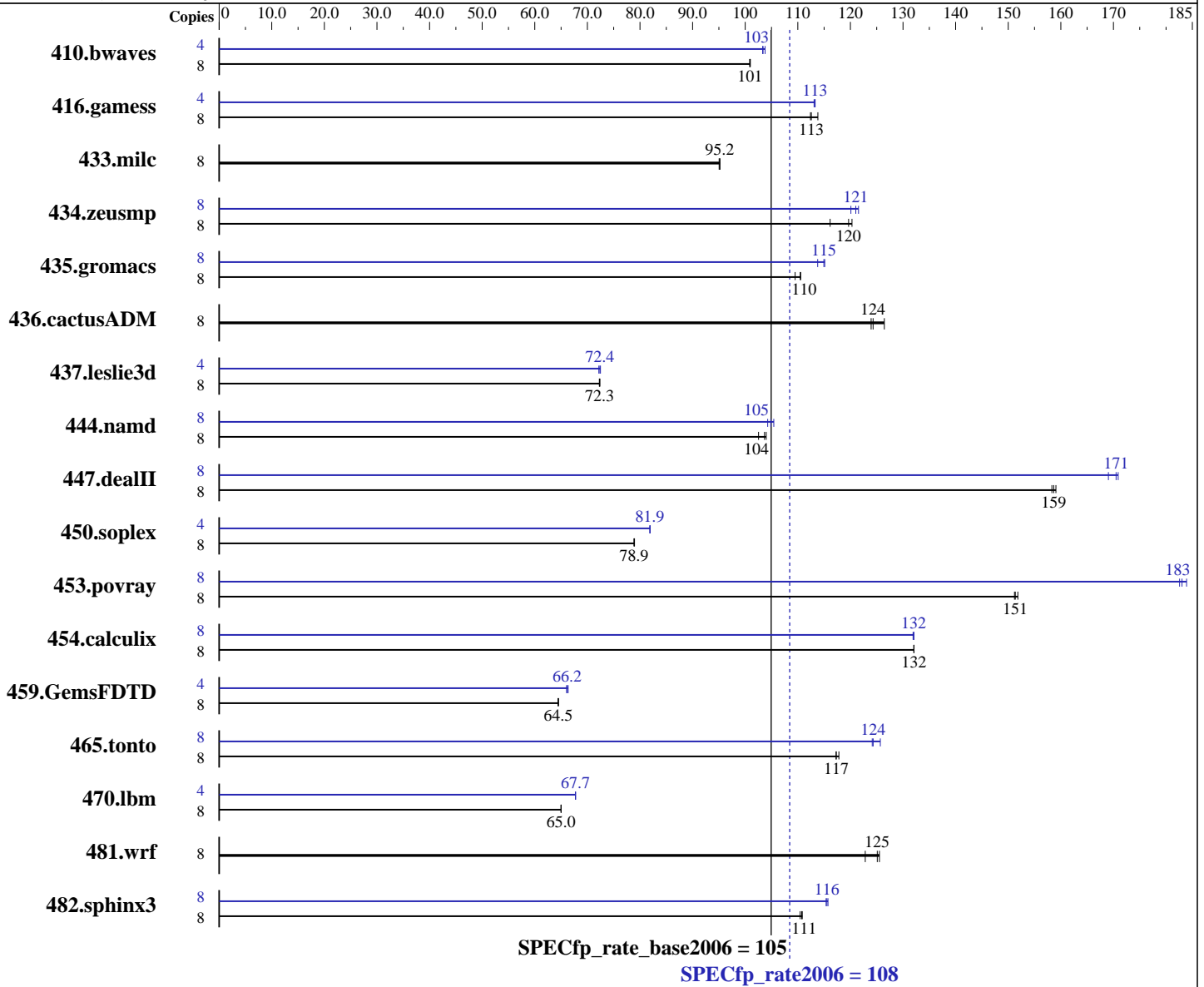|	
SPECfp_rate2006 =	108
SPECfp_rate_base2006 =	105

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

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

L3 Cache:	8 MB I+D on chip per chip	Peak Pointers:	32/64-bit
Other Cache:	None	Other Software:	Binutils 2.18.50.0.7.20080502
Memory:	24 GB (6x4 GB PC3-10600R, 2 rank, CL9-9-9, ECC, see add'l detail in notes)		
Disk Subsystem:	1 x SATA, 250 GB, 7200 RPM		
Other Hardware:	None		

Results Table

Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
			Base								Peak			
410.bwaves	8	**1077**	**101**	1077	101	1078	101	4	**526**	**103**	524	104	526	103
416.gamess	8	**1391**	**113**	1376	114	1394	112	4	691	113	693	113	**691**	**113**
433.milc	8	772	95.2	773	95.0	**772**	**95.2**	8	772	95.2	773	95.0	**772**	**95.2**
434.zeusmp	8	605	120	627	116	**608**	**120**	8	606	120	**602**	**121**	599	122
435.gromacs	8	**517**	**110**	517	111	522	109	8	**497**	**115**	496	115	502	114
436.cactusADM	8	**769**	**124**	756	126	771	124	8	**769**	**124**	756	126	771	124
437.leslie3d	8	**1040**	**72.3**	1041	72.3	1039	72.4	4	**520**	**72.4**	521	72.2	519	72.5
444.namd	8	626	103	617	104	**619**	**104**	8	615	104	609	105	**612**	**105**
447.dealII	8	575	159	**577**	**159**	578	158	8	536	171	**537**	**171**	541	169
450.soplex	8	845	79.0	**846**	**78.9**	846	78.9	4	**407**	**81.9**	407	81.9	407	81.9
453.povray	8	280	152	281	151	**281**	**151**	8	233	183	**233**	**183**	231	184
454.calculix	8	**500**	**132**	500	132	500	132	8	500	132	500	132	**500**	**132**
459.GemsFDTD	8	1316	64.5	**1317**	**64.5**	1317	64.4	4	**641**	**66.2**	643	66.0	640	66.3
465.tonto	8	671	117	668	118	**671**	**117**	8	**633**	**124**	626	126	634	124
470.lbm	8	**1691**	**65.0**	1691	65.0	1691	65.0	4	812	67.7	**811**	**67.7**	811	67.8
481.wrf	8	712	126	**714**	**125**	728	123	8	712	126	**714**	**125**	728	123
482.sphinx3	8	**1408**	**111**	1407	111	1412	110	8	1347	116	**1350**	**116**	1351	115

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 processes to cores and its local memory.
     Details may be found in the config file.
```

Operating System Notes

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

Platform Notes

```
     BIOS configuration:
     Memory Mode = Max Performance
```

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY RX300 S5, Intel Xeon W5590, 3.33 GHz

SPECfp_rate2006 =	108
SPECfp_rate_base2006 =	105

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

General Notes

 This result was measured on the PRIMERGY TX300 S5. The PRIMERGY TX300 S5
 and the PRIMERGY RX300 S5 are electronically equivalent.

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

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

Continued on next page

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY RX300 S5, Intel Xeon W5590, 3.33 GHz

$SPECfp\_rate2006 =$ 108

$SPECfp\_rate\_base2006 =$ 105

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

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
```

     482.sphinx3: `icc -m32`

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

     450.soplex: `icpc -m32`

Fortran benchmarks (except as noted below):
```
ifort
```

     437.leslie3d: `ifort -m32`

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`
     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 RX300 S5, Intel Xeon W5590, 3.33 GHz

$SPECfp\_rate2006 =$ 108

$SPECfp\_rate\_base2006 =$ 105

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

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

Peak Optimization Flags

C benchmarks:

> 433.milc: basepeak = yes

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

> 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`

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

PRIMERGY RX300 S5, Intel Xeon W5590, 3.33 GHz

$SPECfp\_rate2006 =$ 108

$SPECfp\_rate\_base2006 =$ 105

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

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

Peak Optimization Flags (Continued)

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

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.20090901.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.20090901.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 04:48:58 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 13 October 2009.