



# SPEC<sup>®</sup> CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu

### SPECfp<sup>®</sup>\_rate2006 = 36.1

PRIMERGY RX300 S5, Intel Xeon E5502, 1.87 GHz

### SPECfp\_rate\_base2006 = 34.8

CPU2006 license: 19

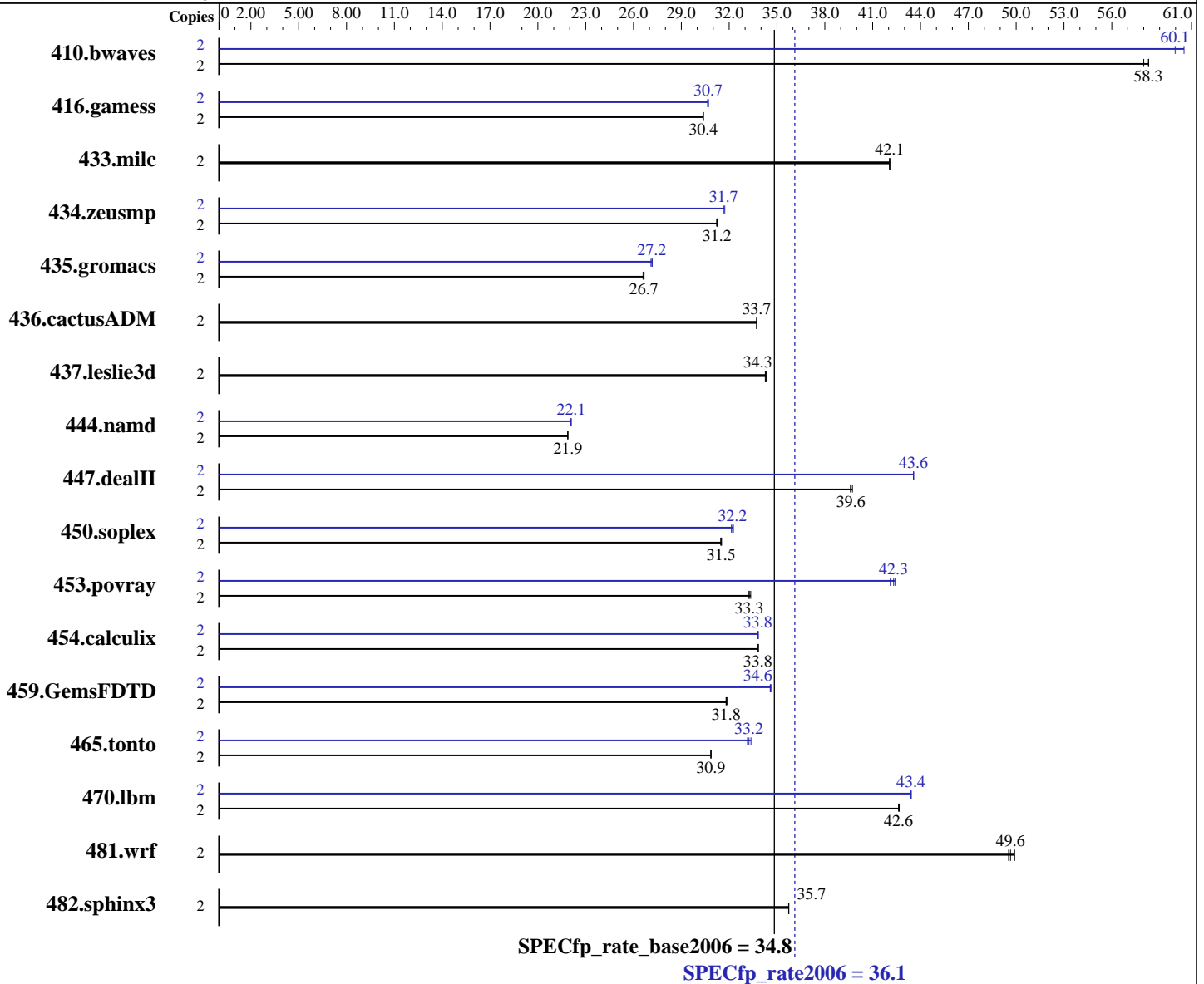
Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Aug-2009

Hardware Availability: Apr-2009

Software Availability: Feb-2009



### Hardware

CPU Name: Intel Xeon E5502  
 CPU Characteristics:  
 CPU MHz: 1867  
 FPU: Integrated  
 CPU(s) enabled: 2 cores, 1 chip, 2 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: 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

SPECfp\_rate2006 = 36.1

PRIMERGY RX300 S5, Intel Xeon E5502, 1.87 GHz

SPECfp\_rate\_base2006 = 34.8

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Aug-2009

Hardware Availability: Apr-2009

Software Availability: Feb-2009

L3 Cache: 4 MB I+D on chip per chip  
Other Cache: None  
Memory: 36 GB (9x4 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

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

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	2	469	58.0	466	58.3	<b>466</b>	<b>58.3</b>	2	453	60.0	<b>452</b>	<b>60.1</b>	449	60.5
416.gamess	2	1290	30.4	1289	30.4	<b>1289</b>	<b>30.4</b>	2	<b>1276</b>	<b>30.7</b>	1278	30.6	1276	30.7
433.milc	2	<b>436</b>	<b>42.1</b>	436	42.1	437	42.1	2	<b>436</b>	<b>42.1</b>	436	42.1	437	42.1
434.zeusmp	2	583	31.2	582	31.3	<b>583</b>	<b>31.2</b>	2	<b>575</b>	<b>31.7</b>	574	31.7	576	31.6
435.gromacs	2	<b>536</b>	<b>26.7</b>	536	26.7	537	26.6	2	527	27.1	<b>526</b>	<b>27.2</b>	525	27.2
436.cactusADM	2	709	33.7	708	33.7	<b>709</b>	<b>33.7</b>	2	709	33.7	708	33.7	<b>709</b>	<b>33.7</b>
437.leslie3d	2	549	34.3	548	34.3	<b>548</b>	<b>34.3</b>	2	549	34.3	548	34.3	<b>548</b>	<b>34.3</b>
444.namd	2	733	21.9	733	21.9	<b>733</b>	<b>21.9</b>	2	727	22.1	726	22.1	<b>726</b>	<b>22.1</b>
447.dealII	2	<b>577</b>	<b>39.6</b>	578	39.6	576	39.7	2	<b>525</b>	<b>43.6</b>	525	43.6	525	43.6
450.soplex	2	529	31.5	530	31.5	<b>530</b>	<b>31.5</b>	2	517	32.3	<b>518</b>	<b>32.2</b>	519	32.1
453.povray	2	319	33.4	<b>320</b>	<b>33.3</b>	320	33.3	2	251	42.4	253	42.1	<b>251</b>	<b>42.3</b>
454.calculix	2	<b>488</b>	<b>33.8</b>	488	33.8	488	33.8	2	488	33.8	488	33.8	<b>488</b>	<b>33.8</b>
459.GemsFDTD	2	<b>667</b>	<b>31.8</b>	667	31.8	666	31.9	2	613	34.6	<b>613</b>	<b>34.6</b>	614	34.6
465.tonto	2	638	30.9	638	30.8	<b>638</b>	<b>30.9</b>	2	590	33.4	<b>592</b>	<b>33.2</b>	594	33.1
470.lbm	2	<b>645</b>	<b>42.6</b>	644	42.7	645	42.6	2	<b>633</b>	<b>43.4</b>	633	43.4	633	43.4
481.wrf	2	<b>450</b>	<b>49.6</b>	451	49.5	448	49.9	2	<b>450</b>	<b>49.6</b>	451	49.5	448	49.9
482.sphinx3	2	1090	35.7	<b>1091</b>	<b>35.7</b>	1094	35.6	2	1090	35.7	<b>1091</b>	<b>35.7</b>	1094	35.6

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

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>



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECfp\_rate2006 = 36.1

PRIMERGY RX300 S5, Intel Xeon E5502, 1.87 GHz

SPECfp\_rate\_base2006 = 34.8

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

Test date: Aug-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  
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

SPECfp\_rate2006 = 36.1

PRIMERGY RX300 S5, Intel Xeon E5502, 1.87 GHz

SPECfp\_rate\_base2006 = 34.8

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Aug-2009

Hardware Availability: Apr-2009

Software Availability: Feb-2009

## Peak Compiler Invocation

C benchmarks:

icc

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  
 482.sphinx3: -DSPEC\_CPU\_LP64

## 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: basepeak = yes

C++ benchmarks:

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp\_rate2006 = 36.1**

PRIMERGY RX300 S5, Intel Xeon E5502, 1.87 GHz

**SPECfp\_rate\_base2006 = 34.8**

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Aug-2009

Hardware Availability: Apr-2009

Software Availability: Feb-2009

## Peak Optimization Flags (Continued)

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

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

481.wrf: basepeak = yes



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECfp\_rate2006 = 36.1

PRIMERGY RX300 S5, Intel Xeon E5502, 1.87 GHz

SPECfp\_rate\_base2006 = 34.8

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Aug-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.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>

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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.1.  
Report generated on Wed Jul 23 04:40:56 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 13 October 2009.