



# SPEC<sup>®</sup> CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu

SPECfp<sup>®</sup>2006 = 35.7

PRIMERGY RX600 S5, Intel Xeon X7550, 2.0 GHz

SPECfp\_base2006 = 33.0

CPU2006 license: 19

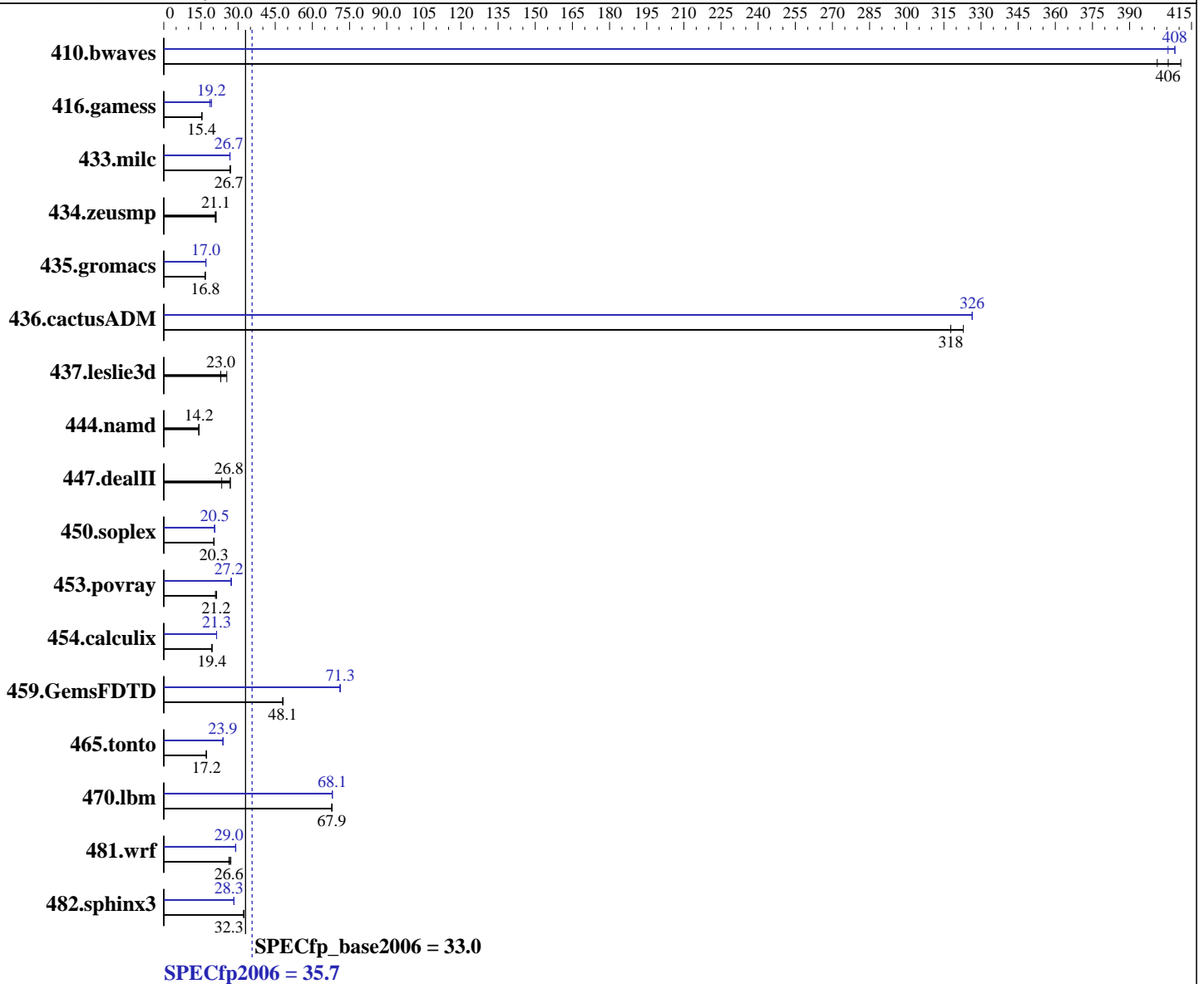
Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: May-2010

Hardware Availability: Jun-2010

Software Availability: Jan-2010



**Hardware**

CPU Name: Intel Xeon X7550  
 CPU Characteristics: Intel Turbo Boost Technology up to 2.40 GHz  
 CPU MHz: 2000  
 FPU: Integrated  
 CPU(s) enabled: 32 cores, 4 chips, 8 cores/chip  
 CPU(s) orderable: 2,3,4 chips  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 256 KB I+D on chip per core

**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: Yes  
 File System: ext3  
 System State: Multi-User Run Level 3

Continued on next page

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu

SPECfp2006 = **35.7**

PRIMERGY RX600 S5, Intel Xeon X7550, 2.0 GHz

SPECfp\_base2006 = **33.0**

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: May-2010

Hardware Availability: Jun-2010

Software Availability: Jan-2010

L3 Cache: 18 MB I+D on chip per chip  
Other Cache: None  
Memory: 256 GB (64x4 GB PC3-10600R, 2 rank, CL9-9-9, ECC, see add'l detail in notes)  
Disk Subsystem: 1 x SAS, 300 GB, 10000 RPM  
Other Hardware: None

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

## Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	33.9	401	33.1	411	<b>33.5</b>	<b>406</b>	33.5	406	<b>33.3</b>	<b>408</b>	33.3	408
416.gamess	1277	15.3	<b>1274</b>	<b>15.4</b>	1270	15.4	1016	19.3	1051	18.6	<b>1018</b>	<b>19.2</b>
433.milc	344	26.7	340	27.0	<b>344</b>	<b>26.7</b>	343	26.8	345	26.6	<b>344</b>	<b>26.7</b>
434.zeusmp	431	21.1	<b>432</b>	<b>21.1</b>	438	20.8	431	21.1	<b>432</b>	<b>21.1</b>	438	20.8
435.gromacs	<b>426</b>	<b>16.8</b>	426	16.8	429	16.6	419	17.0	<b>421</b>	<b>17.0</b>	421	16.9
436.cactusADM	37.0	323	<b>37.6</b>	<b>318</b>	37.6	318	36.6	326	<b>36.6</b>	<b>326</b>	36.6	326
437.leslie3d	<b>408</b>	<b>23.0</b>	369	25.5	409	23.0	<b>408</b>	<b>23.0</b>	369	25.5	409	23.0
444.namd	563	14.3	569	14.1	<b>565</b>	<b>14.2</b>	563	14.3	569	14.1	<b>565</b>	<b>14.2</b>
447.dealII	489	23.4	426	26.9	<b>426</b>	<b>26.8</b>	489	23.4	426	26.9	<b>426</b>	<b>26.8</b>
450.soplex	<b>411</b>	<b>20.3</b>	414	20.2	410	20.3	<b>406</b>	<b>20.5</b>	407	20.5	406	20.6
453.povray	<b>251</b>	<b>21.2</b>	249	21.3	255	20.9	195	27.3	<b>196</b>	<b>27.2</b>	196	27.2
454.calculix	<b>424</b>	<b>19.4</b>	424	19.5	424	19.4	387	21.3	<b>387</b>	<b>21.3</b>	387	21.3
459.GemsFDTD	221	48.0	220	48.2	<b>221</b>	<b>48.1</b>	149	71.1	149	71.3	<b>149</b>	<b>71.3</b>
465.tonto	572	17.2	<b>572</b>	<b>17.2</b>	574	17.1	411	23.9	412	23.9	<b>412</b>	<b>23.9</b>
470.lbm	<b>202</b>	<b>67.9</b>	202	67.9	202	67.9	202	68.1	<b>202</b>	<b>68.1</b>	202	68.0
481.wrf	413	27.1	<b>420</b>	<b>26.6</b>	425	26.3	<b>385</b>	<b>29.0</b>	385	29.0	384	29.1
482.sphinx3	<b>604</b>	<b>32.3</b>	604	32.3	603	32.3	688	28.3	689	28.3	<b>688</b>	<b>28.3</b>

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 1066 MHz.  
BIOS configuration:  
Intel HT Technology = Disable

## General Notes

OMP\_NUM\_THREADS set to number of cores  
KMP\_AFFINITY set to granularity=fine,scatter  
KMP\_STACKSIZE set to 200M

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp2006 = 35.7**

**PRIMERGY RX600 S5, Intel Xeon X7550, 2.0 GHz**

**SPECfp\_base2006 = 33.0**

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

**Test date:** May-2010  
**Hardware Availability:** Jun-2010  
**Software Availability:** Jan-2010

## General Notes (Continued)

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 -parallel -opt-prefetch

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

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp2006 = 35.7**

PRIMERGY RX600 S5, Intel Xeon X7550, 2.0 GHz

**SPECfp\_base2006 = 33.0**

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

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

## Base Optimization Flags (Continued)

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`

## Peak Compiler Invocation

C benchmarks:

`icc -m64`

C++ benchmarks:

`icpc -m64`

Fortran benchmarks:

`ifort -m64`

Benchmarks using both Fortran and C:

`icc -m64 ifort -m64`

## Peak Portability Flags

Same as Base Portability Flags

## 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)  
-ansi-alias`

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)  
-parallel -ansi-alias -auto-ilp32`

482.sphinx3: `-xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32  
-unroll2`

C++ benchmarks:

444.namd: `basepeak = yes`

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp2006 = 35.7**

**PRIMERGY RX600 S5, Intel Xeon X7550, 2.0 GHz**

**SPECfp\_base2006 = 33.0**

**CPU2006 license:** 19

**Test date:** May-2010

**Test sponsor:** Fujitsu

**Hardware Availability:** Jun-2010

**Tested by:** Fujitsu

**Software Availability:** Jan-2010

## Peak Optimization Flags (Continued)

447.dealll: 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 -auto-ilp32

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  
-parallel

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)  
-inline-calloc -opt-malloc-options=3 -auto -unroll4

### 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: Same as 454.calculix

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.20100330.02.html>



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = 35.7

PRIMERGY RX600 S5, Intel Xeon X7550, 2.0 GHz

SPECfp\_base2006 = 33.0

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: May-2010

Hardware Availability: Jun-2010

Software Availability: Jan-2010

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100330.02.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 11:11:13 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 20 July 2010.