



# SPEC<sup>®</sup> CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu

SPECfp<sup>®</sup>2006 = 32.9

PRIMERGY RX200 S6, Intel Xeon L5630, 2.13 GHz

SPECfp\_base2006 = 30.7

CPU2006 license: 19

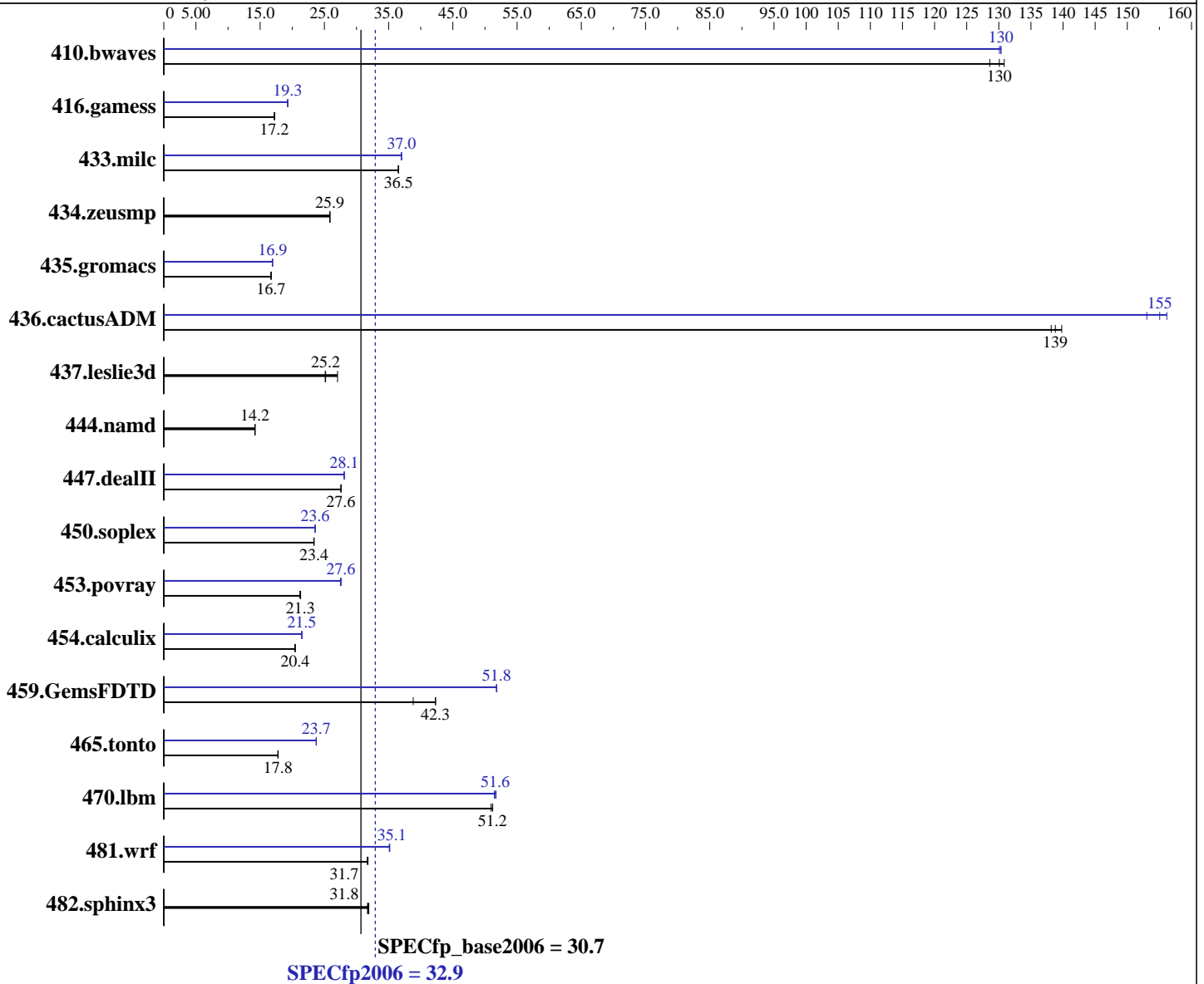
Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Apr-2010

Hardware Availability: Oct-2010

Software Availability: Jan-2010



### Hardware

CPU Name: Intel Xeon L5630  
 CPU Characteristics: Intel Turbo Boost Technology up to 2.40 GHz  
 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 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



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu

SPECfp2006 = **32.9**

PRIMERGY RX200 S6, Intel Xeon L5630, 2.13 GHz

SPECfp\_base2006 = **30.7**

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Apr-2010

Hardware Availability: Oct-2010

Software Availability: Jan-2010

L3 Cache: 12 MB I+D on chip per chip  
Other Cache: None  
Memory: 48 GB (12x4 GB PC3-10600R, 2 rank, CL9-9-9, ECC, see add'l detail in notes)  
Disk Subsystem: 1 x SATA, 160 GB, 5400 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	106	129	<b>104</b>	<b>130</b>	104	131	<b>104</b>	<b>130</b>	104	130	104	130
416.gamess	<b>1137</b>	<b>17.2</b>	1135	17.3	1139	17.2	1015	19.3	1016	19.3	<b>1015</b>	<b>19.3</b>
433.milc	251	36.5	251	36.5	<b>251</b>	<b>36.5</b>	<b>248</b>	<b>37.0</b>	248	36.9	248	37.0
434.zeusmp	352	25.8	<b>352</b>	<b>25.9</b>	352	25.9	352	25.8	<b>352</b>	<b>25.9</b>	352	25.9
435.gromacs	427	16.7	428	16.7	<b>428</b>	<b>16.7</b>	421	16.9	423	16.9	<b>422</b>	<b>16.9</b>
436.cactusADM	<b>86.1</b>	<b>139</b>	86.5	138	85.5	140	78.1	153	76.5	156	<b>77.1</b>	<b>155</b>
437.leslie3d	<b>373</b>	<b>25.2</b>	348	27.0	374	25.1	<b>373</b>	<b>25.2</b>	348	27.0	374	25.1
444.namd	565	14.2	<b>565</b>	<b>14.2</b>	565	14.2	565	14.2	<b>565</b>	<b>14.2</b>	565	14.2
447.dealII	415	27.6	<b>415</b>	<b>27.6</b>	415	27.6	407	28.1	<b>407</b>	<b>28.1</b>	407	28.1
450.soplex	356	23.4	357	23.4	<b>357</b>	<b>23.4</b>	<b>354</b>	<b>23.6</b>	354	23.6	354	23.6
453.povray	250	21.3	251	21.2	<b>250</b>	<b>21.3</b>	193	27.6	193	27.5	<b>193</b>	<b>27.6</b>
454.calculix	403	20.5	<b>404</b>	<b>20.4</b>	404	20.4	384	21.5	<b>384</b>	<b>21.5</b>	384	21.5
459.GemsFDTD	<b>251</b>	<b>42.3</b>	251	42.3	273	38.8	205	51.8	<b>205</b>	<b>51.8</b>	205	51.8
465.tonto	<b>554</b>	<b>17.8</b>	553	17.8	554	17.8	414	23.7	415	23.7	<b>415</b>	<b>23.7</b>
470.lbm	<b>269</b>	<b>51.2</b>	268	51.2	270	50.9	267	51.5	266	51.7	<b>266</b>	<b>51.6</b>
481.wrf	<b>352</b>	<b>31.7</b>	351	31.8	352	31.7	317	35.2	318	35.1	<b>318</b>	<b>35.1</b>
482.sphinx3	614	31.7	611	31.9	<b>613</b>	<b>31.8</b>	614	31.7	611	31.9	<b>613</b>	<b>31.8</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 1067 MHz.  
BIOS configuration:  
Intel HT Technology = Disable  
Data Reuse Optimization = Disable



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp2006 = 32.9**

PRIMERGY RX200 S6, Intel Xeon L5630, 2.13 GHz

**SPECfp\_base2006 = 30.7**

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

**Test date:** Apr-2010  
**Hardware Availability:** Oct-2010  
**Software Availability:** Jan-2010

## 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>

## 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 = 32.9**

PRIMERGY RX200 S6, Intel Xeon L5630, 2.13 GHz

**SPECfp\_base2006 = 30.7**

CPU2006 license: 19

Test date: Apr-2010

Test sponsor: Fujitsu

Hardware Availability: Oct-2010

Tested by: Fujitsu

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: `basepeak = yes`

C++ benchmarks:

444.namd: `basepeak = yes`

447.dealIII: `-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- -auto-ilp32`

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = 32.9

PRIMERGY RX200 S6, Intel Xeon L5630, 2.13 GHz

SPECfp\_base2006 = 30.7

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Apr-2010

Hardware Availability: Oct-2010

Software Availability: Jan-2010

## Peak Optimization Flags (Continued)

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 = 32.9

PRIMERGY RX200 S6, Intel Xeon L5630, 2.13 GHz

SPECfp\_base2006 = 30.7

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: Apr-2010

Hardware Availability: Oct-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 11:00:11 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 20 July 2010.