



# SPEC<sup>®</sup> CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu

SPECfp<sup>®</sup>2006 = **58.4**

PRIMERGY TX140 S1, Intel Xeon E3-1230, 3.20 GHz

SPECfp\_base2006 = **55.9**

CPU2006 license: 19

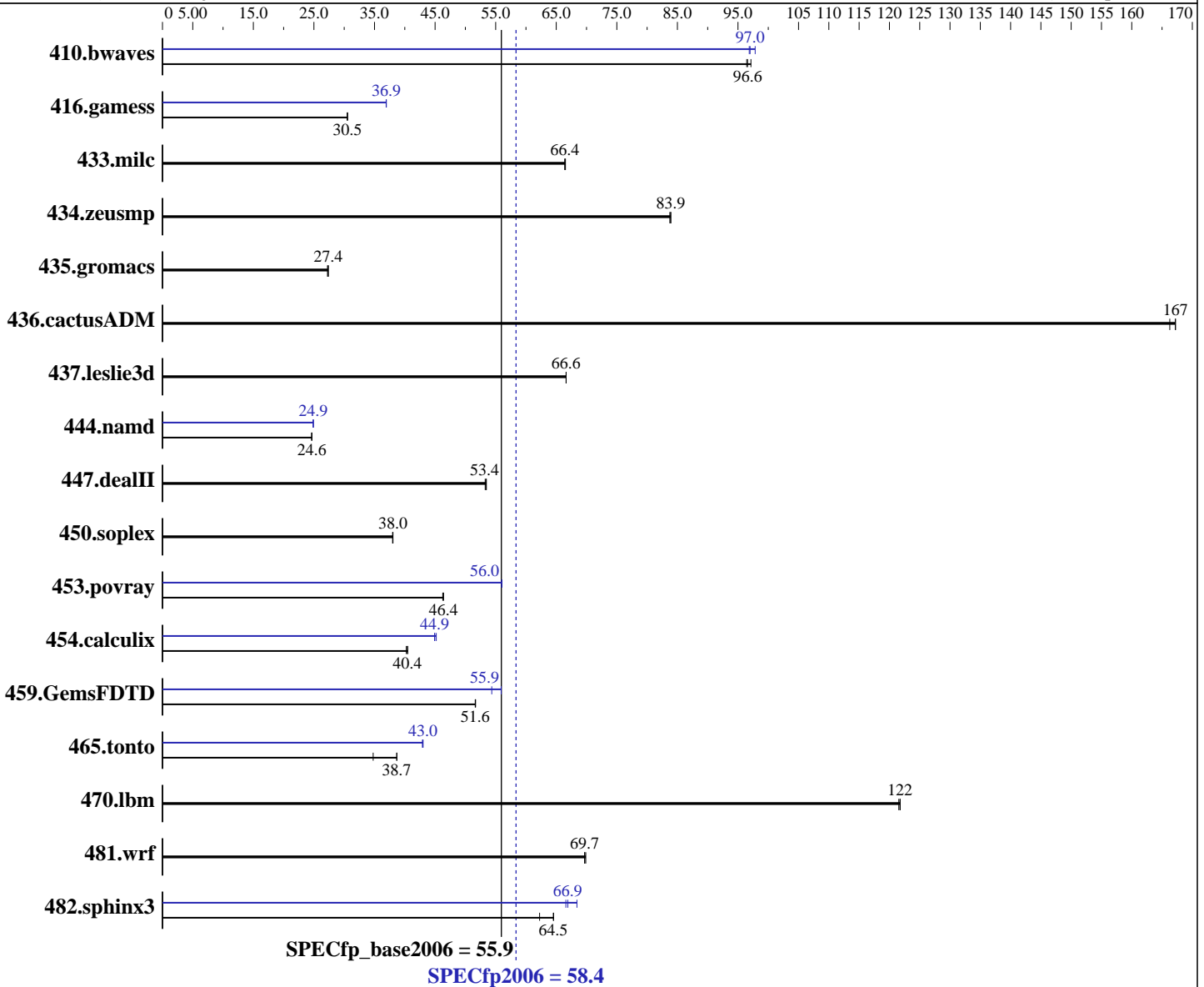
Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: May-2011

Hardware Availability: Jun-2011

Software Availability: Apr-2011



### Hardware

CPU Name: Intel Xeon E3-1230  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.60 GHz  
 CPU MHz: 3200  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip  
 CPU(s) orderable: 1 chip  
 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) with SP1, Kernel 2.6.32.12-0.7-default  
 Compiler: Intel C++ and Fortran Intel 64 Compiler XE for applications running on Intel 64 Version 12.0 Update 3  
 Auto Parallel: Yes  
 File System: ext3  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu

SPECfp2006 = **58.4**

PRIMERGY TX140 S1, Intel Xeon E3-1230, 3.20 GHz

SPECfp\_base2006 = **55.9**

CPU2006 license: 19

Test date: May-2011

Test sponsor: Fujitsu

Hardware Availability: Jun-2011

Tested by: Fujitsu

Software Availability: Apr-2011

L3 Cache: 8 MB I+D on chip per chip  
Other Cache: None  
Memory: 8 GB (2 x 4 GB 2Rx8 PC3-10600E-9, ECC)  
Disk Subsystem: 1 x SATA, 300 GB, 7200 RPM  
Other Hardware: --

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	141	96.4	140	97.1	<b><u>141</u></b>	<b><u>96.6</u></b>	140	96.9	139	97.8	<b><u>140</u></b>	<b><u>97.0</u></b>
416.gamess	<b><u>641</u></b>	<b><u>30.5</u></b>	641	30.5	642	30.5	<b><u>530</u></b>	<b><u>36.9</u></b>	530	37.0	530	36.9
433.milc	138	66.5	<b><u>138</u></b>	<b><u>66.4</u></b>	138	66.4	138	66.5	<b><u>138</u></b>	<b><u>66.4</u></b>	138	66.4
434.zeusmp	108	83.9	<b><u>108</u></b>	<b><u>83.9</u></b>	109	83.7	108	83.9	<b><u>108</u></b>	<b><u>83.9</u></b>	109	83.7
435.gromacs	262	27.2	<b><u>261</u></b>	<b><u>27.4</u></b>	261	27.4	262	27.2	<b><u>261</u></b>	<b><u>27.4</u></b>	261	27.4
436.cactusADM	71.9	166	<b><u>71.5</u></b>	<b><u>167</u></b>	71.5	167	71.9	166	<b><u>71.5</u></b>	<b><u>167</u></b>	71.5	167
437.leslie3d	<b><u>141</u></b>	<b><u>66.6</u></b>	141	66.6	141	66.6	<b><u>141</u></b>	<b><u>66.6</u></b>	141	66.6	141	66.6
444.namd	325	24.6	325	24.6	<b><u>325</u></b>	<b><u>24.6</u></b>	322	24.9	322	24.9	<b><u>322</u></b>	<b><u>24.9</u></b>
447.dealII	214	53.5	<b><u>214</u></b>	<b><u>53.4</u></b>	215	53.3	214	53.5	<b><u>214</u></b>	<b><u>53.4</u></b>	215	53.3
450.soplex	<b><u>219</u></b>	<b><u>38.0</u></b>	219	38.0	220	38.0	<b><u>219</u></b>	<b><u>38.0</u></b>	219	38.0	220	38.0
453.povray	115	46.3	<b><u>115</u></b>	<b><u>46.4</u></b>	115	46.4	95.0	56.0	<b><u>95.0</u></b>	<b><u>56.0</u></b>	95.0	56.0
454.calculix	205	40.2	<b><u>204</u></b>	<b><u>40.4</u></b>	204	40.5	183	45.2	184	44.9	<b><u>184</u></b>	<b><u>44.9</u></b>
459.GemsFDTD	205	51.6	<b><u>205</u></b>	<b><u>51.6</u></b>	205	51.7	<b><u>190</u></b>	<b><u>55.9</u></b>	190	55.9	195	54.4
465.tonto	283	34.8	<b><u>255</u></b>	<b><u>38.7</u></b>	254	38.7	229	43.0	<b><u>229</u></b>	<b><u>43.0</u></b>	229	42.9
470.lbm	113	122	113	122	<b><u>113</u></b>	<b><u>122</u></b>	113	122	113	122	<b><u>113</u></b>	<b><u>122</u></b>
481.wrf	160	69.9	<b><u>160</u></b>	<b><u>69.7</u></b>	160	69.7	160	69.9	<b><u>160</u></b>	<b><u>69.7</u></b>	160	69.7
482.sphinx3	313	62.3	302	64.6	<b><u>302</u></b>	<b><u>64.5</u></b>	285	68.4	293	66.6	<b><u>291</u></b>	<b><u>66.9</u></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
'nodetv /mnt/hugepages hugetlbfs defaults 0 0' added to /etc/fstab
echo 900 > /proc/sys/vm/nr_hugepages
export HUGETLB_MORECORE=yes
export LD_PRELOAD=/usr/lib64/libhugetlbfs.so
```

## Platform Notes

BIOS configuration:  
Intel HT Technology = Disable



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp2006 = 58.4**

PRIMERGY TX140 S1, Intel Xeon E3-1230, 3.20 GHz

**SPECfp\_base2006 = 55.9**

**CPU2006 license:** 19

**Test date:** May-2011

**Test sponsor:** Fujitsu

**Hardware Availability:** Jun-2011

**Tested by:** Fujitsu

**Software Availability:** Apr-2011

## General Notes

OMP\_NUM\_THREADS set to number of cores  
For information about Fujitsu please visit: <http://www.fujitsu.com>  
Binaries were compiled on RHEL5.5 with binutils-2.17.50.0.6-14.el5  
This result was measured on the PRIMERGY TX120 S3. The PRIMERGY TX120 S3 and the PRIMERGY TX140 S1 are electronically equivalent.

## 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.deallI: -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:  
-xAVX -ipo -O3 -no-prec-div -static -parallel -opt-prefetch  
-ansi-alias

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp2006 = 58.4**

PRIMERGY TX140 S1, Intel Xeon E3-1230, 3.20 GHz

**SPECfp\_base2006 = 55.9**

CPU2006 license: 19

Test date: May-2011

Test sponsor: Fujitsu

Hardware Availability: Jun-2011

Tested by: Fujitsu

Software Availability: Apr-2011

## Base Optimization Flags (Continued)

C++ benchmarks:

`-xAVX -ipo -O3 -no-prec-div -static -opt-prefetch -ansi-alias`

Fortran benchmarks:

`-xAVX -ipo -O3 -no-prec-div -static -parallel -opt-prefetch`

Benchmarks using both Fortran and C:

`-xAVX -ipo -O3 -no-prec-div -static -parallel -opt-prefetch  
-ansi-alias`

## 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: `basepeak = yes`

470.lbm: `basepeak = yes`

482.sphinx3: `-xAVX -ipo -O3 -no-prec-div -unroll2 -ansi-alias  
-parallel`

C++ benchmarks:

444.namd: `-xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -fno-alias  
-auto-ilp32`

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp2006 = 58.4**

PRIMERGY TX140 S1, Intel Xeon E3-1230, 3.20 GHz

**SPECfp\_base2006 = 55.9**

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: May-2011

Hardware Availability: Jun-2011

Software Availability: Apr-2011

## Peak Optimization Flags (Continued)

447.dealIII: basepeak = yes

450.soplex: basepeak = yes

453.povray: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -ansi-alias  
-B /usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT

### Fortran benchmarks:

410.bwaves: -xAVX -ipo -O3 -no-prec-div -opt-prefetch -parallel  
-static

416.gamess: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -unroll2  
-inline-level=0 -scalar-rep- -static

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -unroll2  
-inline-level=0 -opt-prefetch -parallel  
-B /usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT

465.tonto: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)  
-no-prec-div(pass 2) -prof-use(pass 2) -inline-calloc  
-opt-malloc-options=3 -auto -unroll4  
-B /usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT

### Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: basepeak = yes

454.calculix: -xAVX -ipo -O3 -no-prec-div -auto-ilp32 -ansi-alias  
-B /usr/share/libhugetlbfs/ -Wl,-melf\_x86\_64 -Wl,-hugetlbfs-link=BDT

481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.20110316.html>

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform-Intel-Linux64.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.20110316.xml>

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform-Intel-Linux64.xml>



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp2006 = 58.4**

PRIMERGY TX140 S1, Intel Xeon E3-1230, 3.20 GHz

**SPECfp\_base2006 = 55.9**

**CPU2006 license:** 19

**Test sponsor:** Fujitsu

**Tested by:** Fujitsu

**Test date:** May-2011

**Hardware Availability:** Jun-2011

**Software Availability:** Apr-2011

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 20:02:16 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 24 May 2011.