



# SPEC<sup>®</sup> CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Fujitsu

SPECfp<sup>®</sup>2006 = **60.6**

PRIMERGY TX140 S1, Intel Xeon E3-1270, 3.40 GHz

SPECfp\_base2006 = **57.8**

CPU2006 license: 19

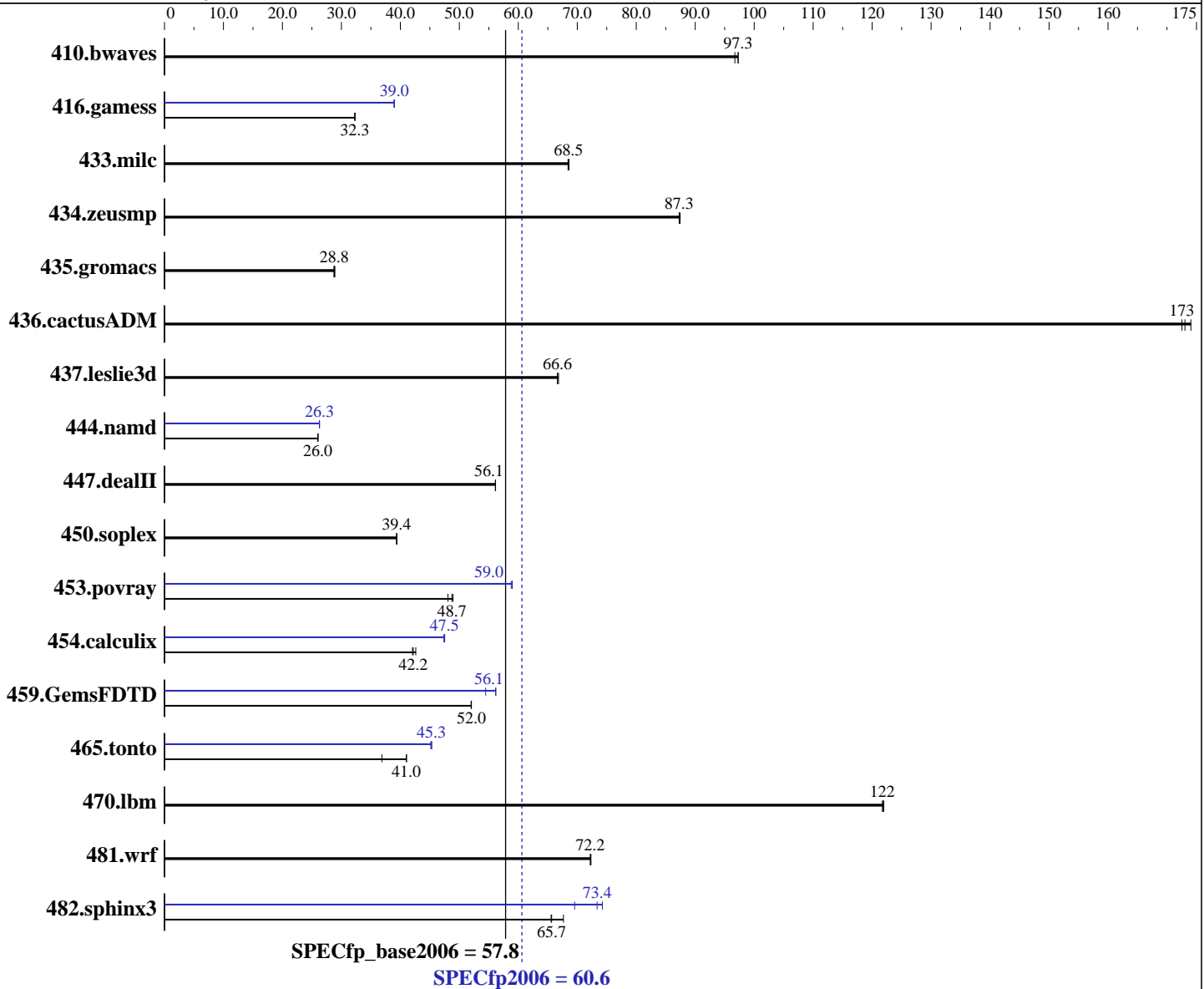
Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: May-2011

Hardware Availability: Jun-2011

Software Availability: Jan-2011



### Hardware

CPU Name: Intel Xeon E3-1270  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.80 GHz  
 CPU MHz: 3400  
 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 Alpha Build 20110105  
 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 = **60.6**

PRIMERGY TX140 S1, Intel Xeon E3-1270, 3.40 GHz

SPECfp\_base2006 = **57.8**

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: May-2011

Hardware Availability: Jun-2011

Software Availability: Jan-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	140	97.3	141	96.7	<b>140</b>	<b>97.3</b>	140	97.3	141	96.7	<b>140</b>	<b>97.3</b>
416.gamess	607	32.3	<b>606</b>	<b>32.3</b>	606	32.3	502	39.0	503	38.9	<b>502</b>	<b>39.0</b>
433.milc	134	68.4	<b>134</b>	<b>68.5</b>	134	68.6	134	68.4	<b>134</b>	<b>68.5</b>	134	68.6
434.zeusmp	104	87.3	<b>104</b>	<b>87.3</b>	104	87.5	104	87.3	<b>104</b>	<b>87.3</b>	104	87.5
435.gromacs	<b>248</b>	<b>28.8</b>	247	28.9	249	28.7	<b>248</b>	<b>28.8</b>	247	28.9	249	28.7
436.cactusADM	<b>69.1</b>	<b>173</b>	68.7	174	69.3	173	<b>69.1</b>	<b>173</b>	68.7	174	69.3	173
437.leslie3d	<b>141</b>	<b>66.6</b>	141	66.6	141	66.8	<b>141</b>	<b>66.6</b>	141	66.6	141	66.8
444.namd	<b>308</b>	<b>26.0</b>	308	26.0	308	26.0	305	26.3	<b>305</b>	<b>26.3</b>	305	26.3
447.dealII	<b>204</b>	<b>56.1</b>	204	56.1	204	56.1	<b>204</b>	<b>56.1</b>	204	56.1	204	56.1
450.soplex	<b>212</b>	<b>39.4</b>	212	39.4	212	39.4	<b>212</b>	<b>39.4</b>	212	39.4	212	39.4
453.povray	111	48.1	109	48.9	<b>109</b>	<b>48.7</b>	<b>90.2</b>	<b>59.0</b>	90.2	59.0	90.5	58.8
454.calculix	194	42.6	<b>196</b>	<b>42.2</b>	196	42.1	174	47.4	<b>174</b>	<b>47.5</b>	174	47.5
459.GemsFDTD	204	52.0	204	52.0	<b>204</b>	<b>52.0</b>	<b>189</b>	<b>56.1</b>	189	56.2	195	54.5
465.tonto	<b>240</b>	<b>41.0</b>	240	41.1	267	36.9	217	45.3	<b>217</b>	<b>45.3</b>	218	45.2
470.lbm	<b>113</b>	<b>122</b>	113	122	113	122	<b>113</b>	<b>122</b>	113	122	113	122
481.wrf	154	72.3	<b>155</b>	<b>72.2</b>	155	72.2	154	72.3	<b>155</b>	<b>72.2</b>	155	72.2
482.sphinx3	297	65.6	<b>297</b>	<b>65.7</b>	288	67.7	262	74.3	<b>266</b>	<b>73.4</b>	280	69.5

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 = 60.6**

PRIMERGY TX140 S1, Intel Xeon E3-1270, 3.40 GHz

**SPECfp\_base2006 = 57.8**

**CPU2006 license:** 19

**Test date:** May-2011

**Test sponsor:** Fujitsu

**Hardware Availability:** Jun-2011

**Tested by:** Fujitsu

**Software Availability:** Jan-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

## 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:

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

C++ benchmarks:

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

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp2006 = 60.6**

PRIMERGY TX140 S1, Intel Xeon E3-1270, 3.40 GHz

**SPECfp\_base2006 = 57.8**

CPU2006 license: 19

Test date: May-2011

Test sponsor: Fujitsu

Hardware Availability: Jun-2011

Tested by: Fujitsu

Software Availability: Jan-2011

## Base Optimization Flags (Continued)

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`

447.dealIII: `basepeak = yes`

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Fujitsu**

**SPECfp2006 = 60.6**

PRIMERGY TX140 S1, Intel Xeon E3-1270, 3.40 GHz

**SPECfp\_base2006 = 57.8**

**CPU2006 license:** 19

**Test date:** May-2011

**Test sponsor:** Fujitsu

**Hardware Availability:** Jun-2011

**Tested by:** Fujitsu

**Software Availability:** Jan-2011

## Peak Optimization Flags (Continued)

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: basepeak = yes

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 = 60.6**

PRIMERGY TX140 S1, Intel Xeon E3-1270, 3.40 GHz

**SPECfp\_base2006 = 57.8**

**CPU2006 license:** 19

**Test sponsor:** Fujitsu

**Tested by:** Fujitsu

**Test date:** May-2011

**Hardware Availability:** Jun-2011

**Software Availability:** Jan-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 20:41:53 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 24 May 2011.