



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECfp[®]2006 = 54.5

PRIMERGY TX140 S1p, Intel Core i3-3220, 3.30 GHz

SPECfp_base2006 = 53.3

CPU2006 license: 19

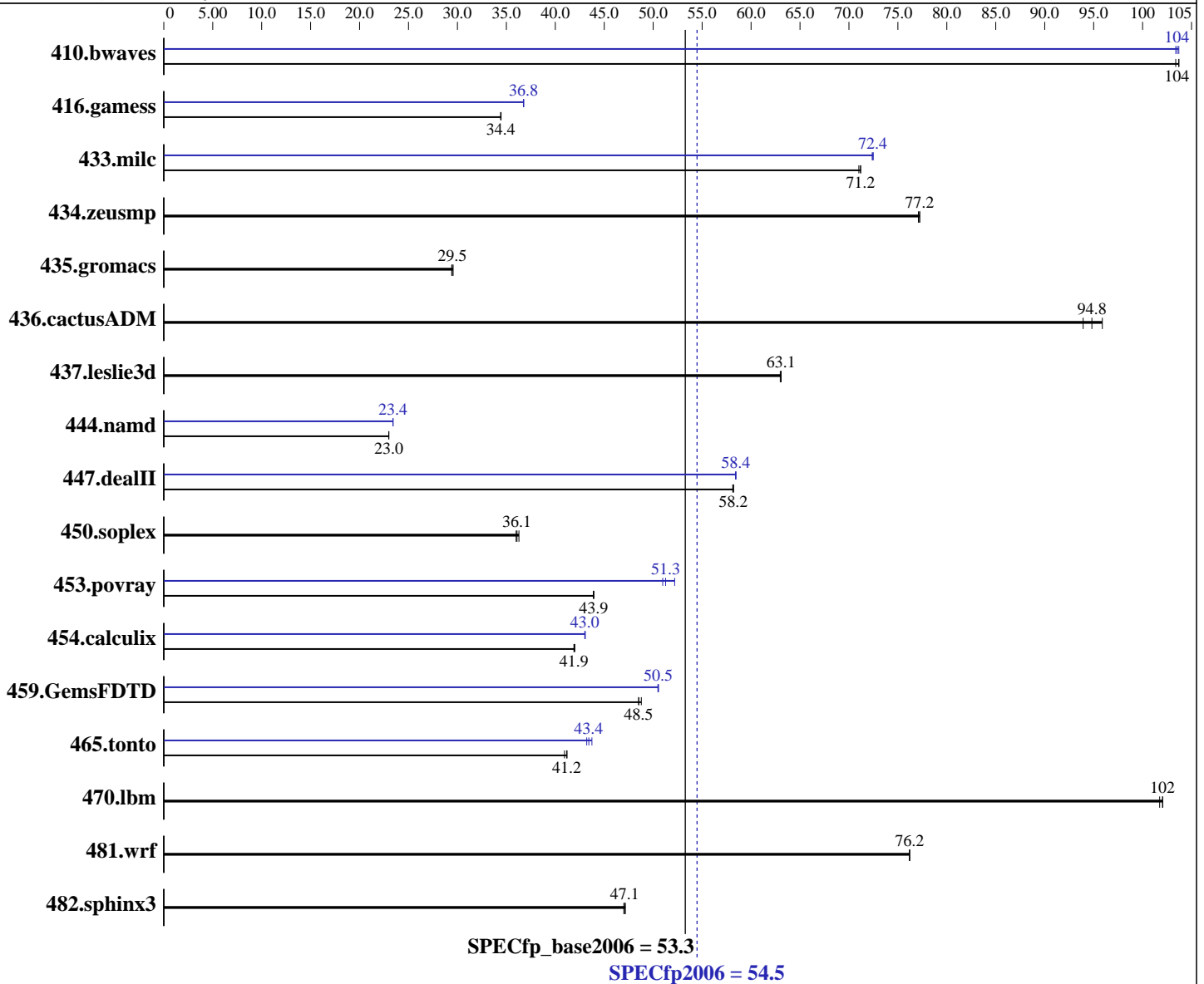
Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: May-2012

Hardware Availability: Sep-2012

Software Availability: Feb-2012



Hardware

CPU Name: Intel Core i3-3220
 CPU Characteristics:
 CPU MHz: 3300
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 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: Red Hat Enterprise Linux Server release 6.2 (Santiago)
 2.6.32-220.el6.x86_64
 Compiler: C/C++: Version 12.1.0.293 of Intel C++ Studio XE for Linux;
 Fortran: Version 12.1.0.293 of Intel Fortran Studio XE for Linux
 Auto Parallel: Yes
 File System: ext4

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = **54.5**

PRIMERGY TX140 S1p, Intel Core i3-3220, 3.30 GHz

SPECfp_base2006 = **53.3**

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: May-2012

Hardware Availability: Sep-2012

Software Availability: Feb-2012

L3 Cache: 3 MB I+D on chip per chip
Other Cache: None
Memory: 16 GB (2 x 8 GB 2Rx8 PC3-12800E-11, ECC)
Disk Subsystem: 1 x SATA, 500 GB, 7200 RPM
Other Hardware: None

System State: Run level 3 (multi-user)
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	131	103	131	104	<u>131</u>	<u>104</u>	131	104	131	103	<u>131</u>	<u>104</u>
416.gamess	569	34.4	568	34.5	<u>569</u>	<u>34.4</u>	532	36.8	533	36.7	<u>533</u>	<u>36.8</u>
433.milc	<u>129</u>	<u>71.2</u>	129	71.2	129	71.0	<u>127</u>	<u>72.4</u>	127	72.4	127	72.5
434.zeusmp	<u>118</u>	<u>77.2</u>	118	77.2	118	77.1	<u>118</u>	<u>77.2</u>	118	77.2	118	77.1
435.gromacs	243	29.4	<u>242</u>	<u>29.5</u>	242	29.6	243	29.4	<u>242</u>	<u>29.5</u>	242	29.6
436.cactusADM	127	93.9	<u>126</u>	<u>94.8</u>	125	95.9	127	93.9	<u>126</u>	<u>94.8</u>	125	95.9
437.leslie3d	149	63.0	149	63.1	<u>149</u>	<u>63.1</u>	149	63.0	149	63.1	<u>149</u>	<u>63.1</u>
444.namd	<u>349</u>	<u>23.0</u>	349	23.0	349	23.0	343	23.4	<u>343</u>	<u>23.4</u>	342	23.4
447.dealII	197	58.1	<u>197</u>	<u>58.2</u>	197	58.2	196	58.4	196	58.5	<u>196</u>	<u>58.4</u>
450.soplex	<u>231</u>	<u>36.1</u>	230	36.3	232	36.0	<u>231</u>	<u>36.1</u>	230	36.3	232	36.0
453.povray	121	43.9	121	43.9	<u>121</u>	<u>43.9</u>	<u>104</u>	<u>51.3</u>	102	52.2	104	51.0
454.calculix	196	42.0	<u>197</u>	<u>41.9</u>	197	41.9	192	43.1	192	43.0	<u>192</u>	<u>43.0</u>
459.GemsFDTD	217	48.8	<u>219</u>	<u>48.5</u>	219	48.5	210	50.5	210	50.5	<u>210</u>	<u>50.5</u>
465.tonto	240	40.9	<u>239</u>	<u>41.2</u>	239	41.2	225	43.7	228	43.2	<u>227</u>	<u>43.4</u>
470.lbm	135	102	135	102	<u>135</u>	<u>102</u>	135	102	135	102	<u>135</u>	<u>102</u>
481.wrf	147	76.2	<u>147</u>	<u>76.2</u>	147	76.2	147	76.2	<u>147</u>	<u>76.2</u>	147	76.2
482.sphinx3	413	47.2	415	47.0	<u>414</u>	<u>47.1</u>	413	47.2	415	47.0	<u>414</u>	<u>47.1</u>

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled

Platform Notes

BIOS configuration:
Intel HT Technology = Disable



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = 54.5

PRIMERGY TX140 S1p, Intel Core i3-3220, 3.30 GHz

SPECfp_base2006 = 53.3

CPU2006 license: 19

Test date: May-2012

Test sponsor: Fujitsu

Hardware Availability: Sep-2012

Tested by: Fujitsu

Software Availability: Feb-2012

General Notes

Environment variables set by runspec before the start of the run:

```
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/SPECcpu2006/libs/32:/SPECcpu2006/libs/64"
OMP_NUM_THREADS = "2"
```

Binaries compiled on a system with 1x E3-1270v2 CPU + 32 GB memory using RHEL6.2

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.deall: -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
```



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = 54.5

PRIMERGY TX140 S1p, Intel Core i3-3220, 3.30 GHz

SPECfp_base2006 = 53.3

CPU2006 license: 19

Test date: May-2012

Test sponsor: Fujitsu

Hardware Availability: Sep-2012

Tested by: Fujitsu

Software Availability: Feb-2012

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`

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: `-xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -static -auto-ilp32
-ansi-alias`

470.lbm: `basepeak = yes`

482.sphinx3: `basepeak = yes`

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = 54.5

PRIMERGY TX140 S1p, Intel Core i3-3220, 3.30 GHz

SPECfp_base2006 = 53.3

CPU2006 license: 19

Test date: May-2012

Test sponsor: Fujitsu

Hardware Availability: Sep-2012

Tested by: Fujitsu

Software Availability: Feb-2012

Peak Optimization Flags (Continued)

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: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch
-ansi-alias

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

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: -xSSE4.2(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

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

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

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-ic12.1-official-linux64.20111122.html>

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20120320.html>



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Fujitsu

SPECfp2006 = 54.5

PRIMERGY TX140 S1p, Intel Core i3-3220, 3.30 GHz

SPECfp_base2006 = 53.3

CPU2006 license: 19

Test sponsor: Fujitsu

Tested by: Fujitsu

Test date: May-2012

Hardware Availability: Sep-2012

Software Availability: Feb-2012

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml>

<http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20120320.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.

Tested with SPEC CPU2006 v1.2.
Report generated on Thu Jul 24 10:29:33 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 11 September 2012.