



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperServer 7047R-TXRF (X9DRX+-F, Intel Xeon E5-2609)

SPECfp®2006 = **58.4**

SPECfp_base2006 = **56.0**

CPU2006 license: 001176

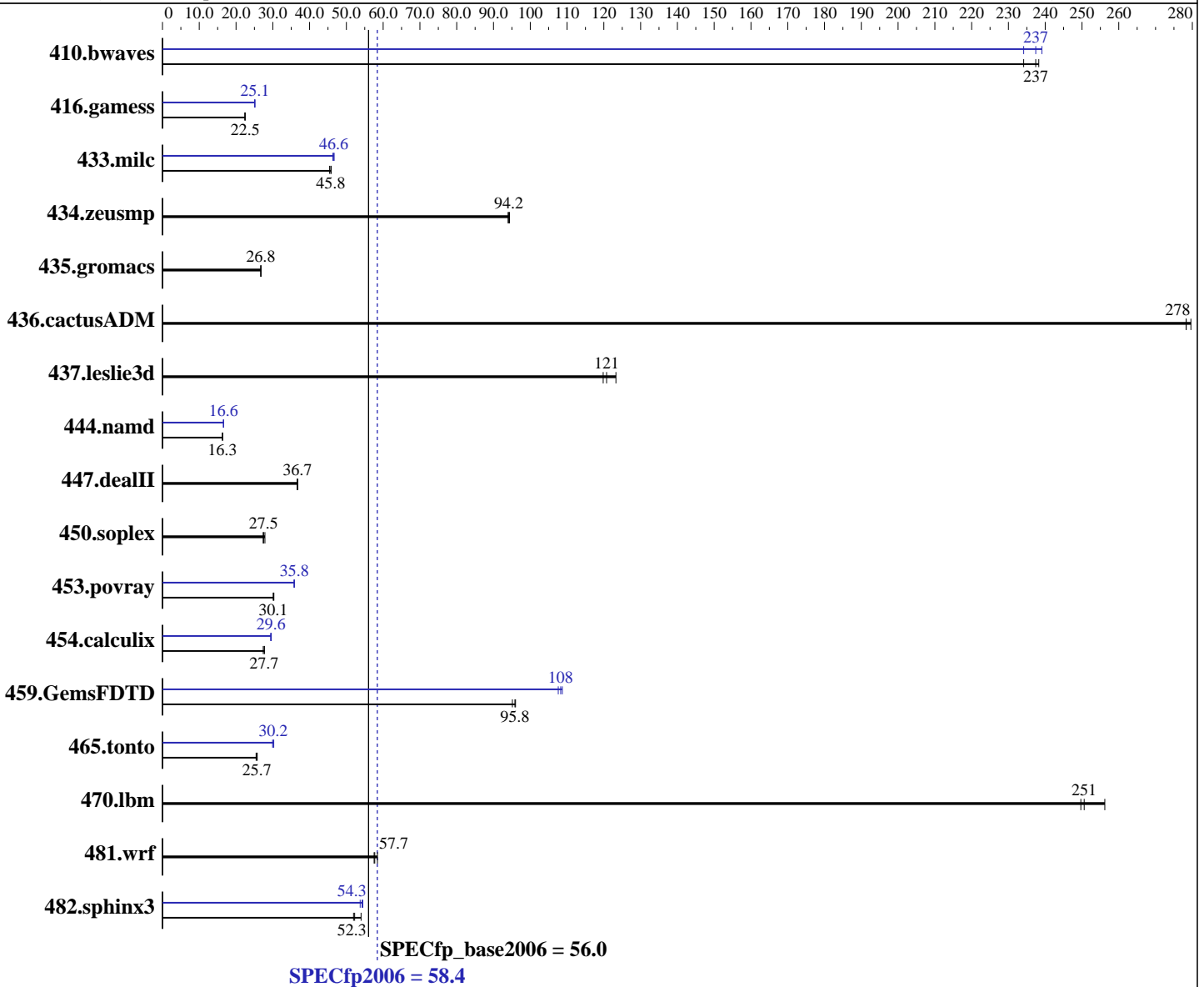
Test sponsor: Supermicro

Tested by: Supermicro

Test date: May-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011



Hardware

CPU Name: Intel Xeon E5-2609
 CPU Characteristics:
 CPU MHz: 2400
 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: Red Hat Enterprise Linux Server Release 6.2, Kernel 2.6.32-220.el6.x86_64
 Compiler: C/C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux;
 Fortran: Version 12.1.0.225 of Intel Fortran Studio XE for Linux
 Auto Parallel: Yes
 File System: ext3
 System State: Run level 3 (multi-user)

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperServer 7047R-TXRF (X9DRX+-F, Intel Xeon E5-2609)

SPECfp2006 = **58.4**

SPECfp_base2006 = **56.0**

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: May-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011

L3 Cache: 10 MB I+D on chip per chip
Other Cache: None
Memory: 256 GB (16 x 16 GB 1Rx4 PC3-12800R-11, ECC, running at 1066 MHz and CL7)
Disk Subsystem: 1 x 2 TB SATA II, 7200 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	<u>57.2</u>	<u>237</u>	58.0	234	57.0	238	56.8	239	<u>57.2</u>	<u>237</u>	58.0	234
416.gamess	871	22.5	<u>871</u>	<u>22.5</u>	875	22.4	779	25.1	781	25.1	<u>779</u>	<u>25.1</u>
433.milc	<u>201</u>	<u>45.8</u>	200	45.9	202	45.4	198	46.3	197	46.6	<u>197</u>	<u>46.6</u>
434.zeusmp	<u>96.6</u>	<u>94.2</u>	96.8	94.0	96.4	94.4	<u>96.6</u>	<u>94.2</u>	96.8	94.0	96.4	94.4
435.gromacs	267	26.8	267	26.7	<u>267</u>	<u>26.8</u>	267	26.8	267	26.7	<u>267</u>	<u>26.8</u>
436.cactusADM	<u>42.9</u>	<u>278</u>	42.7	280	42.9	278	<u>42.9</u>	<u>278</u>	42.7	280	42.9	278
437.leslie3d	78.4	120	<u>77.8</u>	<u>121</u>	76.2	123	78.4	120	<u>77.8</u>	<u>121</u>	76.2	123
444.namd	491	16.3	491	16.3	<u>491</u>	<u>16.3</u>	483	16.6	484	16.6	<u>483</u>	<u>16.6</u>
447.dealII	<u>311</u>	<u>36.7</u>	313	36.6	311	36.8	<u>311</u>	<u>36.7</u>	313	36.6	311	36.8
450.soplex	305	27.4	<u>303</u>	<u>27.5</u>	299	27.9	305	27.4	<u>303</u>	<u>27.5</u>	299	27.9
453.povray	176	30.3	177	30.1	<u>176</u>	<u>30.1</u>	148	35.9	149	35.8	<u>148</u>	<u>35.8</u>
454.calculix	301	27.4	298	27.7	<u>298</u>	<u>27.7</u>	279	29.6	<u>279</u>	<u>29.6</u>	281	29.4
459.GemsFDTD	111	96.0	<u>111</u>	<u>95.8</u>	112	95.1	98.6	108	<u>98.0</u>	<u>108</u>	97.6	109
465.tonto	387	25.5	<u>384</u>	<u>25.7</u>	382	25.8	<u>326</u>	<u>30.2</u>	325	30.3	329	29.9
470.lbm	55.0	250	<u>54.8</u>	<u>251</u>	53.6	256	55.0	250	<u>54.8</u>	<u>251</u>	53.6	256
481.wrf	<u>194</u>	<u>57.7</u>	194	57.5	191	58.4	<u>194</u>	<u>57.7</u>	194	57.5	191	58.4
482.sphinx3	375	51.9	<u>373</u>	<u>52.3</u>	361	54.0	<u>359</u>	<u>54.3</u>	358	54.5	363	53.8

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

General Notes

Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64"
OMP_NUM_THREADS = "8"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperServer 7047R-TXRF (X9DRX+-F, Intel Xeon E5-2609)

SPECfp2006 = 58.4

SPECfp_base2006 = 56.0

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: May-2012
Hardware Availability: Mar-2012
Software Availability: Dec-2011

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

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



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperServer 7047R-TXRF (X9DRX+-F, Intel Xeon E5-2609)

SPECfp2006 = 58.4

SPECfp_base2006 = 56.0

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: May-2012
Hardware Availability: Mar-2012
Software Availability: Dec-2011

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: -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

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

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Supermicro

SuperServer 7047R-TXRF (X9DRX+-F, Intel Xeon E5-2609)

SPECfp2006 = 58.4

SPECfp_base2006 = 56.0

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: May-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011

Peak Optimization Flags (Continued)

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

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 file that was used to format this result can be browsed at

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

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.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 08:08:48 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 24 May 2012.