



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp®_rate2006 = 214

Cisco UCS B200 M2 (Intel Xeon L5640, 2.26 GHz)

SPECfp_rate_base2006 = 210

CPU2006 license: 9019

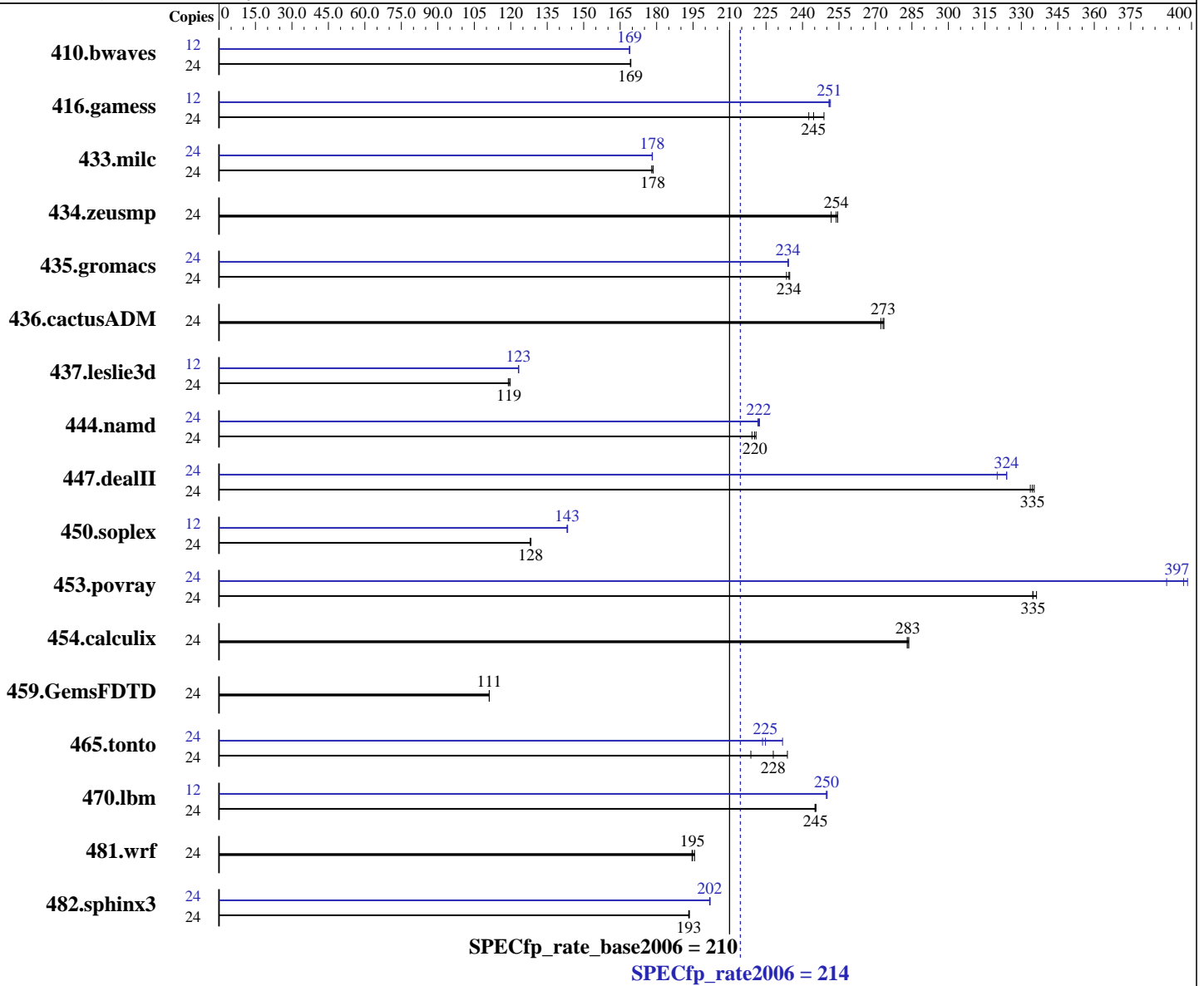
Test date: Feb-2011

Test sponsor: Cisco Systems

Hardware Availability: Mar-2011

Tested by: Cisco Systems

Software Availability: Jan-2011



Hardware

CPU Name: Intel Xeon L5640
 CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz
 CPU MHz: 2267
 FPU: Integrated
 CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 2 threads/core
 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) 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 12.0.1.116 Build 20101116
 Auto Parallel: No
 File System: ext3
 System State: Run level 3 (multi-user)

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp_rate2006 = 214

Cisco UCS B200 M2 (Intel Xeon L5640, 2.26 GHz)

SPECfp_rate_base2006 = 210

CPU2006 license: 9019

Test date: Feb-2011

Test sponsor: Cisco Systems

Hardware Availability: Mar-2011

Tested by: Cisco Systems

Software Availability: Jan-2011

L3 Cache: 12 MB I+D on chip per chip
Other Cache: None
Memory: 48 GB (12 x 4 GB 2Rx4 PC3L-10600R-9, ECC)
Disk Subsystem: 73 GB SAS, 15K RPM
Other Hardware: None

Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other Software: Binaries compiled on RHEL5.5 with binutils-2.17.50.0.6-14.el5

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	24	1925	169	<u>1927</u>	<u>169</u>	1927	169	12	966	169	965	169	<u>966</u>	<u>169</u>
416.gamess	24	<u>1922</u>	<u>245</u>	1937	243	1888	249	12	936	251	<u>936</u>	<u>251</u>	934	251
433.milc	24	1234	179	<u>1235</u>	<u>178</u>	1238	178	24	1236	178	1237	178	<u>1236</u>	<u>178</u>
434.zeusmp	24	867	252	<u>860</u>	<u>254</u>	858	254	24	867	252	<u>860</u>	<u>254</u>	858	254
435.gromacs	24	734	233	730	235	<u>731</u>	<u>234</u>	24	<u>732</u>	<u>234</u>	732	234	732	234
436.cactusADM	24	1049	273	<u>1050</u>	<u>273</u>	1054	272	24	1049	273	<u>1050</u>	<u>273</u>	1054	272
437.leslie3d	24	<u>1892</u>	<u>119</u>	1896	119	1883	120	12	915	123	<u>916</u>	<u>123</u>	916	123
444.namd	24	871	221	<u>874</u>	<u>220</u>	878	219	24	<u>867</u>	<u>222</u>	866	222	868	222
447.dealII	24	<u>821</u>	<u>335</u>	819	335	823	334	24	847	324	858	320	<u>848</u>	<u>324</u>
450.soplex	24	<u>1562</u>	<u>128</u>	1560	128	1563	128	12	699	143	698	143	<u>699</u>	<u>143</u>
453.povray	24	381	335	<u>381</u>	<u>335</u>	380	336	24	<u>322</u>	<u>397</u>	321	398	328	390
454.calculix	24	698	284	<u>699</u>	<u>283</u>	700	283	24	698	284	<u>699</u>	<u>283</u>	700	283
459.GemsFDTD	24	<u>2291</u>	<u>111</u>	2291	111	2290	111	24	<u>2291</u>	<u>111</u>	2291	111	2290	111
465.tonto	24	1080	219	<u>1036</u>	<u>228</u>	1010	234	24	1019	232	1056	224	<u>1051</u>	<u>225</u>
470.lbm	24	1343	246	<u>1344</u>	<u>245</u>	1345	245	12	<u>660</u>	<u>250</u>	660	250	659	250
481.wrf	24	1378	195	1370	196	<u>1376</u>	<u>195</u>	24	1378	195	1370	196	<u>1376</u>	<u>195</u>
482.sphinx3	24	2421	193	<u>2420</u>	<u>193</u>	2418	193	24	<u>2318</u>	<u>202</u>	2315	202	2318	202

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

Submit Notes

The config file option 'submit' was used.
numactl was used to bind copies to the cores

Operating System Notes

ulimit -s unlimited was used to set the stacksize to unlimited prior to run
Large pages were not enabled for this run

Platform Notes

BIOS Configuration : Data Reuse Optimization = Disabled



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp_rate2006 = 214

Cisco UCS B200 M2 (Intel Xeon L5640, 2.26 GHz)

SPECfp_rate_base2006 = 210

CPU2006 license: 9019

Test date: Feb-2011

Test sponsor: Cisco Systems

Hardware Availability: Mar-2011

Tested by: Cisco Systems

Software Availability: Jan-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.lelie3d: -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 -ansi-alias

C++ benchmarks:

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

Fortran benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -static

Benchmarks using both Fortran and C:

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



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp_rate2006 = 214

Cisco UCS B200 M2 (Intel Xeon L5640, 2.26 GHz)

SPECfp_rate_base2006 = 210

CPU2006 license: 9019

Test date: Feb-2011

Test sponsor: Cisco Systems

Hardware Availability: Mar-2011

Tested by: Cisco Systems

Software Availability: Jan-2011

Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m64

482.sphinx3: icc -m32

C++ benchmarks (except as noted below):

icpc -m64

450.soplex: icpc -m32

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

Peak 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
 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

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) -prof-use(pass 2) -static -auto-ilp32

470.lbm: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -opt-malloc-options=3
-ansi-alias -opt-prefetch -static -auto-ilp32

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp_rate2006 = 214

Cisco UCS B200 M2 (Intel Xeon L5640, 2.26 GHz)

SPECfp_rate_base2006 = 210

CPU2006 license: 9019

Test date: Feb-2011

Test sponsor: Cisco Systems

Hardware Availability: Mar-2011

Tested by: Cisco Systems

Software Availability: Jan-2011

Peak Optimization Flags (Continued)

482.sphinx3: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2

C++ benchmarks:

444.namd: -xSSE4.2(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.dealII: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -static -auto-ilp32

450.soplex: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -opt-malloc-options=3
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

453.povray: -xSSE4.2(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: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -static

416.gamess: -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 -scalar-rep- -static

434.zeusmp: basepeak = yes

437.leslie3d: -xSSE4.2 -ipo -O3 -no-prec-div
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

459.GemsFDTD: basepeak = yes

465.tonto: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -auto
-inline-calloc -opt-malloc-options=3
-B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

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) -prof-use(pass 2) -opt-prefetch
-static -auto-ilp32

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp_rate2006 = 214

Cisco UCS B200 M2 (Intel Xeon L5640, 2.26 GHz)

SPECfp_rate_base2006 = 210

CPU2006 license: 9019

Test date: Feb-2011

Test sponsor: Cisco Systems

Hardware Availability: Mar-2011

Tested by: Cisco Systems

Software Availability: Jan-2011

Peak Optimization Flags (Continued)

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.html>

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

<http://www.spec.org/cpu2006/flags/Intel-Platform-Settings.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 v1.1.
Report generated on Wed Jul 23 15:34:48 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 24 March 2011.