



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Cisco Systems

**SPECfp®2006 = 60.1**

Cisco UCS B22 M3 (Intel Xeon E5-2430L, 2.00 GHz)

**SPECfp\_base2006 = 57.7**

CPU2006 license: 9019

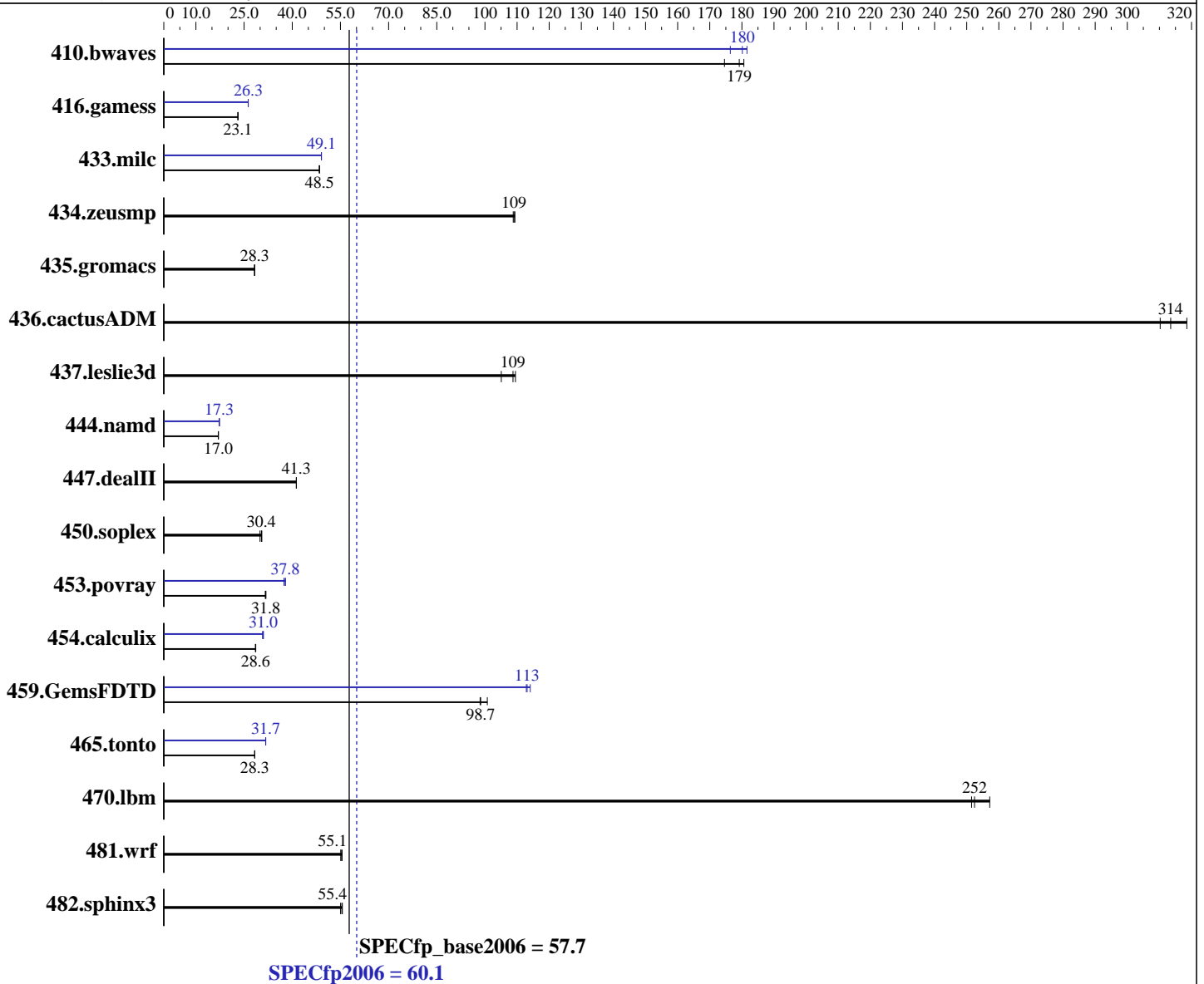
Test date: Jul-2012

Test sponsor: Cisco Systems

Hardware Availability: Aug-2012

Tested by: Cisco Systems

Software Availability: Feb-2012



### Hardware

CPU Name: Intel Xeon E5-2430L  
 CPU Characteristics: Intel Turbo Boost Technology up to 2.50 GHz  
 CPU MHz: 2000  
 FPU: Integrated  
 CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip  
 CPU(s) orderable: 1,2 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 12.1.3.293 of Intel C++ Studio XE for Linux;  
 Fortran: Version 12.1.3.293 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

## Cisco Systems

SPECfp2006 = **60.1**

Cisco UCS B22 M3 (Intel Xeon E5-2430L, 2.00 GHz)

SPECfp\_base2006 = **57.7**

CPU2006 license: 9019

Test date: Jul-2012

Test sponsor: Cisco Systems

Hardware Availability: Aug-2012

Tested by: Cisco Systems

Software Availability: Feb-2012

L3 Cache: 15 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 96 GB (12 x 8 GB 2Rx4 PC3-12800R-11, ECC, running at 1333 MHz and CL9)  
 Disk Subsystem: 1 x 146 GB 15000 RPM SAS  
 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	<b>75.8</b>	<b>179</b>	77.8	175	75.2	181	77.0	176	<b>75.4</b>	<b>180</b>	74.8	182
416.gamess	849	23.1	<b>849</b>	<b>23.1</b>	846	23.1	745	26.3	<b>745</b>	<b>26.3</b>	745	26.3
433.milc	189	48.5	189	48.4	<b>189</b>	<b>48.5</b>	187	49.1	187	49.1	<b>187</b>	<b>49.1</b>
434.zeusmp	<b>83.4</b>	<b>109</b>	83.2	109	83.6	109	<b>83.4</b>	<b>109</b>	83.2	109	83.6	109
435.gromacs	252	28.3	<b>253</b>	<b>28.3</b>	253	28.2	252	28.3	<b>253</b>	<b>28.3</b>	253	28.2
436.cactusADM	37.5	319	<b>38.1</b>	<b>314</b>	38.5	310	37.5	319	<b>38.1</b>	<b>314</b>	38.5	310
437.leslie3d	89.5	105	<b>86.4</b>	<b>109</b>	85.9	109	89.5	105	<b>86.4</b>	<b>109</b>	85.9	109
444.namd	472	17.0	472	17.0	<b>472</b>	<b>17.0</b>	464	17.3	464	17.3	<b>464</b>	<b>17.3</b>
447.dealII	277	41.3	277	41.3	<b>277</b>	<b>41.3</b>	277	41.3	277	41.3	<b>277</b>	<b>41.3</b>
450.soplex	<b>274</b>	<b>30.4</b>	278	30.0	273	30.5	<b>274</b>	<b>30.4</b>	278	30.0	273	30.5
453.povray	<b>167</b>	<b>31.8</b>	168	31.6	167	31.8	142	37.4	140	37.9	<b>141</b>	<b>37.8</b>
454.calculix	288	28.6	289	28.5	<b>289</b>	<b>28.6</b>	266	31.0	<b>266</b>	<b>31.0</b>	268	30.7
459.GemsFDTD	<b>108</b>	<b>98.7</b>	108	98.5	105	101	<b>93.8</b>	<b>113</b>	93.0	114	94.0	113
465.tonto	348	28.3	<b>347</b>	<b>28.3</b>	347	28.3	310	31.7	310	31.8	<b>310</b>	<b>31.7</b>
470.lbm	53.4	257	<b>54.4</b>	<b>252</b>	54.6	252	53.4	257	<b>54.4</b>	<b>252</b>	54.6	252
481.wrf	203	55.1	<b>203</b>	<b>55.1</b>	201	55.5	203	55.1	<b>203</b>	<b>55.1</b>	201	55.5
482.sphinx3	<b>352</b>	<b>55.4</b>	351	55.6	354	55.0	<b>352</b>	<b>55.4</b>	351	55.6	354	55.0

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"

## Platform Notes

Sysinfo program /opt/cpu2006-1.2/config/sysinfo.rev6800  
 \$Rev: 6800 \$ \$Date:: 2011-10-11 #\$ 6f2ebdff5032aaa42e583f96b07f99d3  
 running on localhost.localdomain Tue Jul 3 22:02:11 2012

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:  
<http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

From /proc/cpuinfo

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Cisco Systems

**SPECfp2006 = 60.1**

Cisco UCS B22 M3 (Intel Xeon E5-2430L, 2.00 GHz)

**SPECfp\_base2006 = 57.7**

**CPU2006 license:** 9019

**Test date:** Jul-2012

**Test sponsor:** Cisco Systems

**Hardware Availability:** Aug-2012

**Tested by:** Cisco Systems

**Software Availability:** Feb-2012

### Platform Notes (Continued)

```

model name : Intel(R) Xeon(R) CPU E5-2430L 0 @ 2.00GHz
  2 "physical id"s (chips)
  12 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
following excerpts from /proc/cpuinfo might not be reliable. Use with
caution.)
  cpu cores : 6
  siblings  : 6
  physical 0: cores 0 1 2 3 4 5
  physical 1: cores 0 1 2 3 4 5
cache size : 15360 KB

```

```

From /proc/meminfo
MemTotal:      99008348 kB
HugePages_Total: 0
Hugepagesize:  2048 kB

```

```

/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.2 (Santiago)

```

```

From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

```

```

uname -a:
Linux localhost.localdomain 2.6.32-220.el6.x86_64 #1 SMP Wed Nov 9 08:03:13
EST 2011 x86_64 x86_64 x86_64 GNU/Linux

```

run-level 3 Jul 3 22:01

```

SPEC is set to: /opt/cpu2006-1.2
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/sdal       ext4      134G  9.9G  118G   8% /

```

```

Additional information from dmidecode:
Memory:
  12x 0xCE00 M393B1K70DH0-YK0 8 GB 1600 MHz 2 rank

```

(End of data from sysinfo program)

### General Notes

```

Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/opt/cpu2006-1.2/libs/32:/opt/cpu2006-1.2/libs/64"
OMP_NUM_THREADS = "12"
Intel HT Technology=disable
Binaries compiled on a system with 2 X Intel Xeon E5-2690 CPU + 128 GB memory using RHEL 6.2
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled

```

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp2006 = 60.1

Cisco UCS B22 M3 (Intel Xeon E5-2430L, 2.00 GHz)

SPECfp\_base2006 = 57.7

CPU2006 license: 9019

Test date: Jul-2012

Test sponsor: Cisco Systems

Hardware Availability: Aug-2012

Tested by: Cisco Systems

Software Availability: Feb-2012

## General Notes (Continued)

Filesystem page cache cleared with:  
echo 1> /proc/sys/vm/drop\_caches

Submitted\_by: "Sheshgiri I (shei)" <shei@cisco.com>  
Submitted: Thu Sep 13 12:31:07 EDT 2012  
Submission: cpu2006-20120903-24389.sub

## 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

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp2006 = 60.1

Cisco UCS B22 M3 (Intel Xeon E5-2430L, 2.00 GHz)

SPECfp\_base2006 = 57.7

CPU2006 license: 9019

Test date: Jul-2012

Test sponsor: Cisco Systems

Hardware Availability: Aug-2012

Tested by: Cisco Systems

Software Availability: Feb-2012

## 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: -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

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

Cisco Systems

SPECfp2006 = 60.1

Cisco UCS B22 M3 (Intel Xeon E5-2430L, 2.00 GHz)

SPECfp\_base2006 = 57.7

CPU2006 license: 9019

Test date: Jul-2012

Test sponsor: Cisco Systems

Hardware Availability: Aug-2012

Tested by: Cisco Systems

Software Availability: Feb-2012

## Peak Optimization Flags (Continued)

447.dealII: 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

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20120425.html>

<http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20120425.xml>

<http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2.xml>



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems	SPECfp2006 =	60.1
---------------	--------------	------

Cisco UCS B22 M3 (Intel Xeon E5-2430L, 2.00 GHz)	SPECfp_base2006 =	57.7
--	-------------------	------

CPU2006 license: 9019

Test sponsor: Cisco Systems

Tested by: Cisco Systems

Test date: Jul-2012

Hardware Availability: Aug-2012

Software Availability: Feb-2012

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 v1.2.  
Report generated on Thu Jul 24 09:16:07 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 25 September 2012.