



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp®2006 = **75.8**

Cisco UCS C240 M3 (Intel Xeon E5-2650, 2.00 GHz)

SPECfp_base2006 = **72.1**

CPU2006 license: 9019

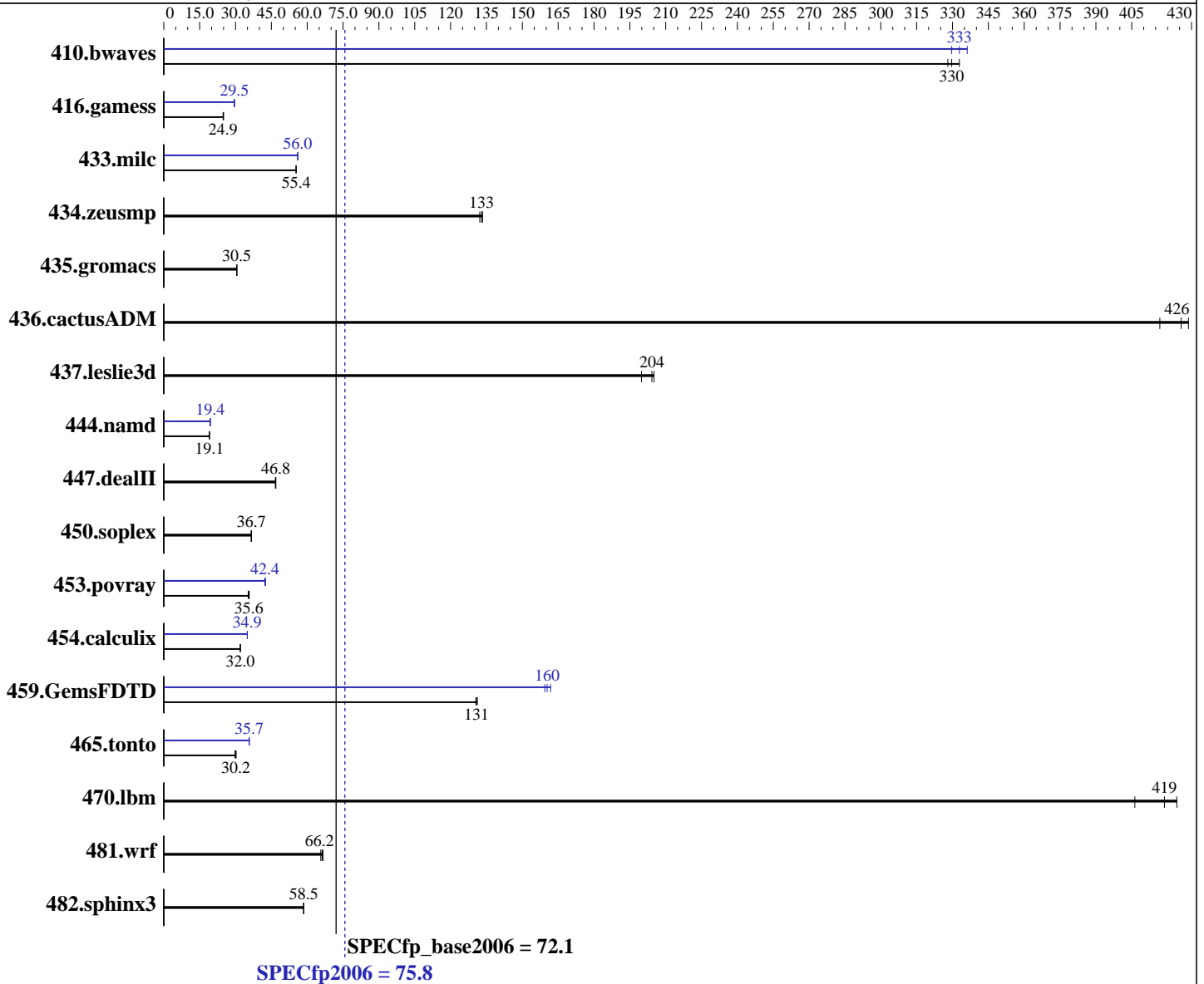
Test date: May-2012

Test sponsor: Cisco Systems

Hardware Availability: Jun-2012

Tested by: Cisco Systems

Software Availability: Dec-2011



Hardware

CPU Name: Intel Xeon E5-2650
 CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz
 CPU MHz: 2000
 FPU: Integrated
 CPU(s) enabled: 16 cores, 2 chips, 8 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 = **75.8**

Cisco UCS C240 M3 (Intel Xeon E5-2650, 2.00 GHz)

SPECfp_base2006 = **72.1**

CPU2006 license: 9019

Test date: May-2012

Test sponsor: Cisco Systems

Hardware Availability: Jun-2012

Tested by: Cisco Systems

Software Availability: Dec-2011

L3 Cache: 20 MB I+D on chip per chip
 Other Cache: None
 Memory: 128 GB (16 x 8 GB 2Rx4 PC3-12800R-11, ECC)
 Disk Subsystem: 1 X 600 GB 10000 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	40.8	333	41.4	328	<u>41.2</u>	<u>330</u>	<u>40.8</u>	<u>333</u>	40.4	336	41.2	330
416.gamess	789	24.8	<u>787</u>	<u>24.9</u>	782	25.0	662	29.6	663	29.5	<u>663</u>	<u>29.5</u>
433.milc	<u>166</u>	<u>55.4</u>	166	55.4	166	55.3	<u>164</u>	<u>56.0</u>	164	56.0	164	56.1
434.zeusmp	68.2	133	68.8	132	<u>68.4</u>	<u>133</u>	68.2	133	68.8	132	<u>68.4</u>	<u>133</u>
435.gromacs	<u>234</u>	<u>30.5</u>	234	30.5	234	30.5	<u>234</u>	<u>30.5</u>	234	30.5	234	30.5
436.cactusADM	27.9	429	28.7	417	<u>28.1</u>	<u>426</u>	27.9	429	28.7	417	<u>28.1</u>	<u>426</u>
437.leslie3d	<u>46.0</u>	<u>204</u>	45.8	205	47.0	200	<u>46.0</u>	<u>204</u>	45.8	205	47.0	200
444.namd	<u>420</u>	<u>19.1</u>	420	19.1	420	19.1	413	19.4	413	19.4	<u>413</u>	<u>19.4</u>
447.dealII	<u>244</u>	<u>46.8</u>	245	46.7	244	46.9	<u>244</u>	<u>46.8</u>	245	46.7	244	46.9
450.soplex	<u>227</u>	<u>36.7</u>	228	36.5	227	36.7	<u>227</u>	<u>36.7</u>	228	36.5	227	36.7
453.povray	<u>149</u>	<u>35.6</u>	151	35.3	149	35.7	<u>126</u>	<u>42.4</u>	126	42.3	125	42.6
454.calculix	258	32.0	258	32.0	<u>258</u>	<u>32.0</u>	236	34.9	<u>236</u>	<u>34.9</u>	236	34.9
459.GemsFDTD	81.3	131	80.9	131	<u>81.1</u>	<u>131</u>	66.6	159	65.6	162	<u>66.2</u>	<u>160</u>
465.tonto	<u>326</u>	<u>30.2</u>	330	29.8	326	30.2	<u>275</u>	<u>35.7</u>	275	35.8	276	35.7
470.lbm	33.8	406	<u>32.8</u>	<u>419</u>	32.4	424	33.8	406	<u>32.8</u>	<u>419</u>	32.4	424
481.wrf	<u>169</u>	<u>66.2</u>	170	65.7	168	66.6	<u>169</u>	<u>66.2</u>	170	65.7	168	66.6
482.sphinx3	333	58.5	333	58.5	<u>333</u>	<u>58.5</u>	333	58.5	333	58.5	<u>333</u>	<u>58.5</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"

Platform Notes

BIOS Configuration:
 Processor Power State C6 set to Disabled
 Processor Power State C1 Enhanced set to Disabled
 Power Technology set to Custom
 Energy Performance set to Performance
 DRAM Clock Throttling set to Performance
 Sysinfo program /opt/cpu2006-1.2/config/sysinfo.rev6800
 \$Rev: 6800 \$ \$Date:: 2011-10-11 #\$ 6f2ebdff5032aaa42e583f96b07f99d3
 running on localhost.localdomain Tue May 8 09:59:17 2012

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp2006 = 75.8

Cisco UCS C240 M3 (Intel Xeon E5-2650, 2.00 GHz)

SPECfp_base2006 = 72.1

CPU2006 license: 9019

Test date: May-2012

Test sponsor: Cisco Systems

Hardware Availability: Jun-2012

Tested by: Cisco Systems

Software Availability: Dec-2011

Platform Notes (Continued)

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
model name      : Intel(R) Xeon(R) CPU E5-2650 0 @ 2.00GHz
 2 "physical id"s (chips)
 16 "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    : 8
  siblings     : 8
  physical 0:  cores 0 1 2 3 4 5 6 7
  physical 1:  cores 0 1 2 3 4 5 6 7
cache size     : 20480 KB

```

```

From /proc/meminfo
MemTotal:      132102596 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 May 8 09:53

```

SPEC is set to: /opt/cpu2006-1.2
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/sdal       ext4      550G  9.9G  512G   2% /

```

Additional information from dmidecode:

```

Memory:
16x 0xCE00 M393B1K70DH0-YK0 8 GB 1600 MHz 1 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"

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp2006 = 75.8

Cisco UCS C240 M3 (Intel Xeon E5-2650, 2.00 GHz)

SPECfp_base2006 = 72.1

CPU2006 license: 9019

Test date: May-2012

Test sponsor: Cisco Systems

Hardware Availability: Jun-2012

Tested by: Cisco Systems

Software Availability: Dec-2011

General Notes (Continued)

```
OMP_NUM_THREADS = "16"
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
Filesystem page cache cleared with:
echo 1> /proc/sys/vm/drop_caches
```

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 = 75.8

Cisco UCS C240 M3 (Intel Xeon E5-2650, 2.00 GHz)

SPECfp_base2006 = 72.1

CPU2006 license: 9019

Test date: May-2012

Test sponsor: Cisco Systems

Hardware Availability: Jun-2012

Tested by: Cisco Systems

Software Availability: Dec-2011

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:

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp2006 = 75.8

Cisco UCS C240 M3 (Intel Xeon E5-2650, 2.00 GHz)

SPECfp_base2006 = 72.1

CPU2006 license: 9019

Test date: May-2012

Test sponsor: Cisco Systems

Hardware Availability: Jun-2012

Tested by: Cisco Systems

Software Availability: Dec-2011

Peak Optimization Flags (Continued)

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.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-linux64.20111122.html>

<http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2.20130607.html>

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

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

<http://www.spec.org/cpu2006/flags/Cisco-Platform-Settings-V1.2.20130607.xml>



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Cisco Systems

SPECfp2006 = 75.8

Cisco UCS C240 M3 (Intel Xeon E5-2650, 2.00 GHz)

SPECfp_base2006 = 72.1

CPU2006 license: 9019

Test date: May-2012

Test sponsor: Cisco Systems

Hardware Availability: Jun-2012

Tested by: Cisco Systems

Software Availability: Dec-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.

Tested with SPEC CPU2006 v1.2.
Report generated on Thu Jul 24 06:23:54 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 5 June 2012.