



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

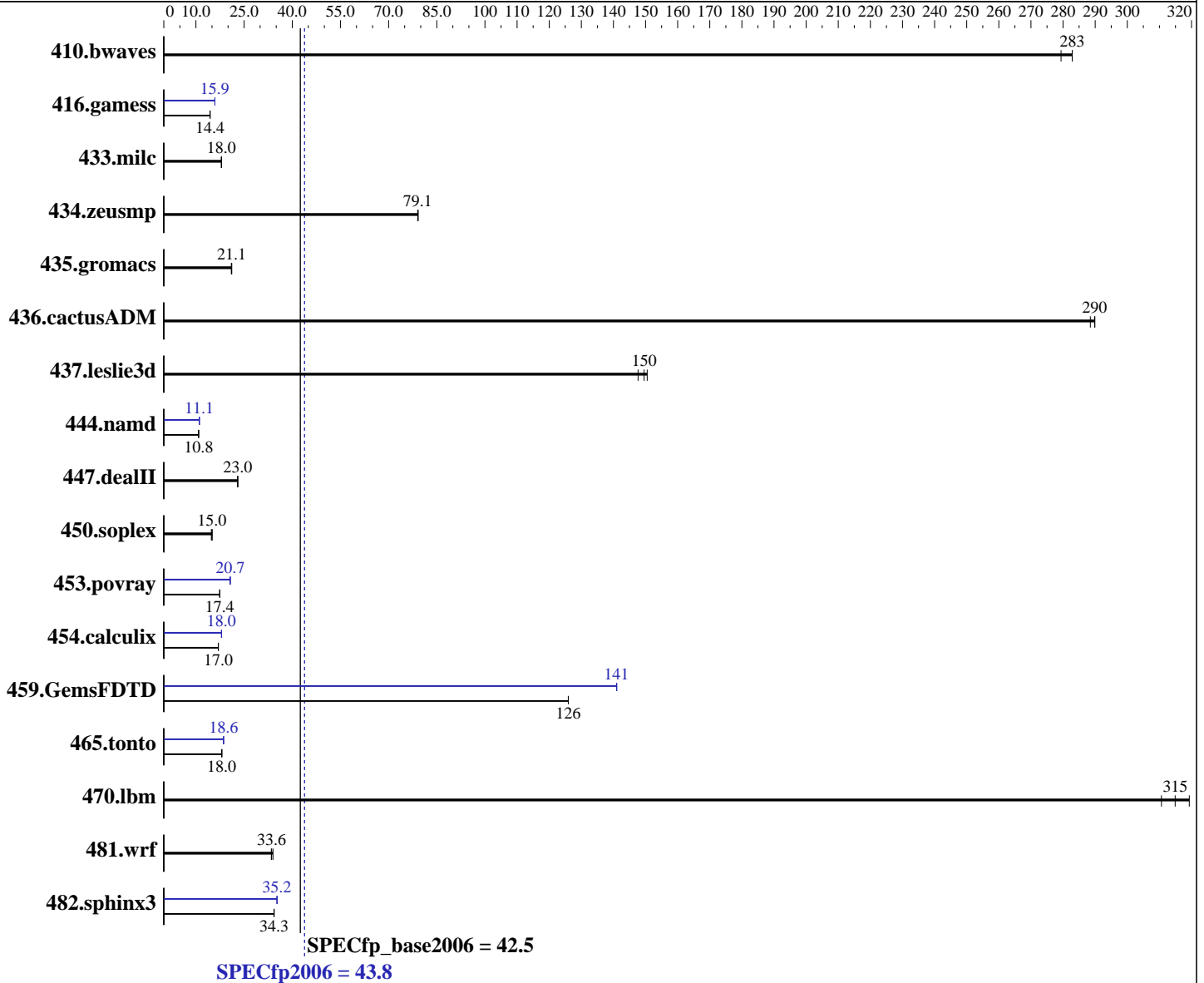
Huawei Tecal RH5885 V2

SPECfp®2006 = 43.8

SPECfp_base2006 = 42.5

CPU2006 license: 13
Test sponsor: Huawei
Tested by: Huawei

Test date: Oct-2012
Hardware Availability: Oct-2012
Software Availability: Oct-2012



Hardware

CPU Name: Intel Xeon E7-4807
CPU Characteristics:
CPU MHz: 1867
FPU: Integrated
CPU(s) enabled: 24 cores, 4 chips, 6 cores/chip
CPU(s) orderable: 2,4 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 (Santiago)
2.6.32-220.el6.x86_64
Compiler: C/C++: Version 13.0.0.079 of Intel C++ Studio XE for Linux;
Fortran: Version 13.0.0.079 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

Huawei
Tecal RH5885 V2

SPECfp2006 = 43.8
SPECfp_base2006 = 42.5

CPU2006 license: 13
Test sponsor: Huawei
Tested by: Huawei

Test date: Oct-2012
Hardware Availability: Oct-2012
Software Availability: Oct-2012

L3 Cache: 18 MB I+D on chip per chip
Other Cache: None
Memory: 512 GB (64 x 8 GB 2Rx4 PC3-10600R-9, ECC, running at 800 MHz)
Disk Subsystem: 100 GB SSD
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	48.6	279	48.0	283	48.0	283	48.6	279	48.0	283	48.0	283
416.gamess	1361	14.4	1360	14.4	1358	14.4	1230	15.9	1231	15.9	1230	15.9
433.milc	512	17.9	511	18.0	511	18.0	512	17.9	511	18.0	511	18.0
434.zeusmp	115	79.2	115	79.1	115	79.1	115	79.2	115	79.1	115	79.1
435.gromacs	340	21.0	337	21.2	338	21.1	340	21.0	337	21.2	338	21.1
436.cactusADM	41.2	290	41.4	288	41.2	290	41.2	290	41.4	288	41.2	290
437.leslie3d	62.5	151	62.9	150	63.7	148	62.5	151	62.9	150	63.7	148
444.namd	740	10.8	741	10.8	740	10.8	724	11.1	724	11.1	724	11.1
447.dealII	497	23.0	497	23.0	497	23.0	497	23.0	497	23.0	497	23.0
450.soplex	553	15.1	557	15.0	563	14.8	553	15.1	557	15.0	563	14.8
453.povray	305	17.5	305	17.4	306	17.4	257	20.7	257	20.7	258	20.6
454.calculix	485	17.0	486	17.0	487	17.0	459	18.0	459	18.0	459	18.0
459.GemsFDTD	84.2	126	84.2	126	84.2	126	75.2	141	75.2	141	75.2	141
465.tonto	545	18.0	544	18.1	546	18.0	530	18.6	528	18.6	529	18.6
470.lbm	43.6	315	44.2	311	43.0	319	43.6	315	44.2	311	43.0	319
481.wrf	329	34.0	333	33.6	334	33.5	329	34.0	333	33.6	334	33.5
482.sphinx3	567	34.4	568	34.3	568	34.3	552	35.3	553	35.2	553	35.2

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:
Intel Hyper-Threading set to Disabled
Sysinfo program /home/cpu2006/config/sysinfo.rev6800
\$Rev: 6800 \$ \$Date:: 2011-10-11 #\$ 6f2ebdff5032aaa42e583f96b07f99d3
running on Huawei-RH5885 Wed Oct 10 01:08:55 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>

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei Tecal RH5885 V2	SPECfp2006 =	43.8
	SPECfp_base2006 =	42.5

CPU2006 license: 13	Test date:	Oct-2012
Test sponsor: Huawei	Hardware Availability:	Oct-2012
Tested by: Huawei	Software Availability:	Oct-2012

Platform Notes (Continued)

```

From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E7-4807 @ 1.87GHz
 4 "physical id"s (chips)
24 "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 18 24 25
  physical 1: cores 0 1 2 18 24 25
  physical 2: cores 2 8 9 16 17 18
  physical 3: cores 0 1 2 18 24 25
cache size : 18432 KB

From /proc/meminfo
MemTotal:      529115232 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 Huawei-RH5885 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 Oct 9 09:02

SPEC is set to: /home/cpu2006
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/mapper/vg_huaweirh5885-lv_home
                ext4       80G   19G   57G   25% /home

Additional information from dmidecode:
Memory:
 32x Samsung M393B1K70CH0-CH9 8 GB 800 MHz 2 rank
 32x Samsung M393B1K70DH0-YH9 8 GB 800 MHz 2 rank

(End of data from sysinfo program)

```



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei Tecal RH5885 V2	SPECfp2006 =	43.8
	SPECfp_base2006 =	42.5

CPU2006 license: 13	Test date:	Oct-2012
Test sponsor: Huawei	Hardware Availability:	Oct-2012
Tested by: Huawei	Software Availability:	Oct-2012

General Notes

Environment variables set by runspec before the start of the run:
 KMP_AFFINITY = "granularity=fine,compact,1,0"
 LD_LIBRARY_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64"
 OMP_NUM_THREADS = "24"

Binaries compiled on a system with 4xE7-4807 CPU + 512 GB memory using RHEL6.2
 Transparent Huge Pages enabled with:
 echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
 runspec command invoked through numactl i.e.:
 numactl --interleave=all runspec <etc>

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.deallI: -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

Huawei Tecal RH5885 V2	SPECfp2006 =	43.8
	SPECfp_base2006 =	42.5

CPU2006 license: 13	Test date:	Oct-2012
Test sponsor: Huawei	Hardware Availability:	Oct-2012
Tested by: Huawei	Software Availability:	Oct-2012

Base Optimization Flags

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

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

Fortran benchmarks:
 -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

Benchmarks using both Fortran and C:
 -xSSE4.2 -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: basepeak = yes

470.lbm: basepeak = yes

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

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei Tecal RH5885 V2	SPECfp2006 =	43.8
	SPECfp_base2006 =	42.5

CPU2006 license: 13	Test date:	Oct-2012
Test sponsor: Huawei	Hardware Availability:	Oct-2012
Tested by: Huawei	Software Availability:	Oct-2012

Peak Optimization Flags (Continued)

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.dealIII: basepeak = yes

450.soplex: basepeak = yes

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

Fortran benchmarks:

410.bwaves: basepeak = yes

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: 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: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
 -no-prec-div(pass 2) -prof-use(pass 2) -inline-alloc
 -opt-malloc-options=3 -auto -unroll4

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: basepeak = yes

454.calculix: -xSSE4.2 -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 CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei Tecal RH5885 V2	SPECfp2006 =	43.8
	SPECfp_base2006 =	42.5

CPU2006 license: 13
Test sponsor: Huawei
Tested by: Huawei

Test date: Oct-2012
Hardware Availability: Oct-2012
Software Availability: Oct-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.

Tested with SPEC CPU2006 v1.2.
Report generated on Thu Jul 24 12:58:23 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 19 November 2012.