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Non-Compliant
Huawei
Huawei BH620, Intel Xeon X5670

**SPEC CFP2006 Result**

| SPECfp_rate2006 | NC |
| SPECfp_rate_base2006 | NC |

CPU2006 license: 3175
Test sponsor: Huawei
 Tested by: Huawei

**SPEC has determined that this result is not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was customized in a manner that did not meet SPEC's requirements for documented and supported systems.**

### Hardware

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<tr>
<th>Item</th>
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<tbody>
<tr>
<td>CPU Name</td>
<td>Intel Xeon X5670</td>
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<td>CPU Characteristics</td>
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### Software

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Huawei
Huawei BH620, Intel Xeon X5670

SPECfp_rate2006 = NC
SPECfp_rate_base2006 = NC

CPU2006 license: 3175
Test sponsor: Huawei
Tested by: Huawei

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Results Table

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</table>

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
echo 1 >/proc/sys/vm/zone_reclaim_mode
'mount -t hugetlbfs nodev /mnt/hugepages' was used to enable large pages
echo 10800 > /proc/sys/vm/nr_hugepages

Non-Compliant
Huawei
Huawei BH620, Intel Xeon X5670

SPECfp_rate2006 = NC
SPECfp_rate_base2006 = NC

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Operating System Notes (Continued)

export HUGETLB_MORECORE=yes
export LD_PRELOAD=/usr/lib64/libhugetlbfs

Platform Notes
Data Reuse Optimization disabled in BIOS Setup.

General Notes
Binaries compiled on RHEL 5.5

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

416.bwaves:  -DSPEC_CPU_LP64
416.gamess:  -DSPEC_CPU_LP64
435.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
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**Base Portability Flags (Continued)**

- 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 -DSPEC_CPU_CASE_FLAG
- 470.lbm: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG 
- 481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG 
- 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 -prec-div -static
- Benchmarks using both Fortran and C: -xSSE4.2 -ipo -O3 -no-prec-div -static -ansi-alias

**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
SPEC CFP2006 Result

Huawei
Huawei BH620, Intel Xeon X5670

SPECfp_rate2006 = NC
SPECfp_rate_base2006 = NC

CPU2006 license: 3175
Test date: Apr-2011
Test sponsor: Huawei
Hardware Availability: Apr-2011
Tested by: Huawei
Software Availability: Jan-2011

SPEC has determined that this result is not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was customized in a manner that did not meet SPEC's requirements for documented and supported systems.

Peak Compiler Invocation (Continued)

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

Non-Compliant
SPEC CFP2006 Result

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Huawei
Huawei BH620, Intel Xeon X5670

SPECfp_rate2006 = NC
SPECfp_rate_base2006 = NC

CPU2006 license: 3175
Test sponsor: Huawei
Tested by: Huawei
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Peak Optimization Flags (Continued)

482.sphinx3: -xSSE4.2 -ipo -03 -no-prec-div -unroll2

C++ benchmarks:

444.namd: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
- no-prec-div(pass 2) -prof-use(pass 2) -fno-alias
- auto-ilm32

447.dealII: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
- no-prec-div(pass 2) -prof-use(pass 2) -static -auto-ilm32

450.soplex: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(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) -03(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) -03(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) -03(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 -03 -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) -03(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

Continued on next page
Huawei

Huawei BH620, Intel Xeon X5670

SPECfp_rate2006 = NC
SPECfp_rate_base2006 = NC

CPU2006 license: 3175
Test sponsor: Huawei
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Peak Optimization Flags (Continued)

Benchmarks using both Fortran and C:

435.gromacs: -xSSE4.2(pass 2) -prof-gen(pass 1) -l_interpass 2 -03(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -l-prefetch
-static -auto-ilp32

436.cactusADM: basepeak = yes
454.calculix: basepeak = yes
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/HUAWEI-platform-linux64-revB.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/HUAWEI-platform-linux64-revB.xml

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.1.
Originally published on 10 May 2011.