Huawei
Huawei BH620, Intel Xeon L5630

SPECfp_rate2006 = NC
SPECfp_rate_base2006 = NC

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

Test date: May-2011
Hardware Availability: May-2011
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.

Copies
410.bwaves
416.gamess
433.milc
434.zeusmp
435.gromacs
436.cactusADM
437.leslie3d
444.namd
447.dealII
450.soplex
453.povray
454.calculix
459.GemsFDTD
465.tonto
470.lbm
481.wrf
482.sphinx3

Non-Compliant
Huawei
Huawei BH620, Intel Xeon L5630

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SPEC CFP2006 Result

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Test date: May-2011

Software Availability: Jan-2011

Hardware Availability: May-2011

RESULTS

Results Table

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</table>

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

echo 1 > /proc/sys/vm/zone_reclaim_mode

'mount -t hugetlbfs nodev /mnt/hugepages' was used to enable large pages

echo 7200 > /proc/sys/vm/nr_hugepages

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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
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

Continued on next page
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**Base Portability Flags (Continued)**

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<td>450.soplex: -DSPEC_CPU_LP64</td>
<td>453.povray: -DSPEC_CPU_LP64</td>
<td>454.calculix: -DSPEC_CPU_LP64</td>
<td>459.GemsFDTD: -DSPEC_CPU_LP64</td>
<td>465.tonto: -DSPEC_CPU_LP64</td>
<td>470.lbm: -DSPEC_CPU_LP64</td>
<td>481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX</td>
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</table>

**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

**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

Continued on next page
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
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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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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
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 Optimization Flags (Continued)

C++ benchmarks:

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

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-ilp32

447.dealII: basepeak = yes

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
   -fno-alias
   -inline-level=0 -scalar-rep= -static

434.zeusmp: basepeak = yes

439.gemsFD: 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
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Peak Optimization Flags (Continued)

Benchmarks using both Fortran and C:

435.gromacs: -xSSE4.2(pass 2) -prof-gen(pass 1) -lmp(pass 2) -03(pass 2)
            -no-prec-div(pass 2) -prof-uns(pass 2) -z-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.

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