SPEC® CFP2006 Result

Fujitsu
PRIMERGY RX4770 M1, Intel Xeon E7-4820 v2, 2.00 GHz

| SPECfp®_rate2006 = NC | SPECfp_rate_base2006 = NC |

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: May-2014
Hardware Availability: Jun-2014
Software Availability: Sep-2013

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 run with a BIOS which included a version of the Intel MRC (Memory Reference Code) that is not supported by Fujitsu or Intel.

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 |
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Results Table:

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Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Non-Compliant
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Platform Notes

BIOS configuration:
Energy Performance = Performance

General Notes:
Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/SPECcpu2006-MONITOR/libs/32:/SPECcpu2006-MONITOR/libs/64:/SPECcpu2006-MONITOR/sh"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RedHat EL 6.
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
runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>
For information about Fujitsu please visit: http://www.fujitsu.com

Base Compiler Invocation

C benchmarks:
icc   -m64
C++ benchmarks:
icpc  -m64
ifort -m64
Benchmarks using both Fortran and C:
icc   -m64 ifort -m64

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64

Non-Compliant
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Base Portability Flags (Continued)

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 -opt-prefetch -auto-p32 -ansi-alias
-opt-mem-layout-trans=3

C++ benchmarks:
-xAVX -ipo -O3 -no-prec-div -opt-prefetch -auto-p32 -ansi-alias
_layout-trans=3

Fortran benchmarks:
-xAVX -ipo -O3 -no-prec-div -opt-prefetch

Benchmarks using both Fortran and C:
-xAVX -ipo -O3 -no-prec-div -opt-prefetch -auto-p32 -ansi-alias
-opt-mem-layout-trans=3
SPEC CFP2006 Result

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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)
-prec-div(pass 2) -opt-mem-layout-trans=3(pass 2)
-prof-use(pass 2) -auto-ilk32

470.mll: basepeak = yes
432.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) -opt-mem-layout-trans=3(pass 2)
-prof-use(pass 2) -fno-alias -auto-ilk32

447.dealII: basepeak = yes

Continued on next page
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Peak Optimization Flags (Continued)

450.soplex: basepeak = yes

453.povray: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
- opting-out=trans=3(pass 2)
- prof-use(pass 2) -unroll4 -ansi-fixed

Fortran benchmarks:

410.bwaves: basepeak = yes

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 -alarhcp-

434.zeusmp: basepeak = yes

437.leslie3d: -xAVX -Ig -Os -no-prec-div -opt-prefetch

459.GemsFDTD: basepeak = yes

465.tonto: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
- no-prec-div(pass 2) -prof-use(pass 2) -unroll4 -auto-ilp32
- init-callloc -opt-malloc-options=3

Benchmarks using both Fortran and C:

435.gromacs: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
- no-prec-div(pass 2) -opt-mem-layout-trans=3(pass 2)
- prof-use(pass 2) -opt-prefetch -auto-ilp32

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

481.wrf: -xAVX -Ig -Os -no-prec-div -auto-ilp32
### SPEC CFP2006 Result

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The flags files that were used to format this result can be browsed at:  
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20131009.html

You can also download the XML flags sources by saving the following links:  
http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64-revB.xml  
http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20131009.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 v1.2.  
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