SPEC® CFP2006 Result

Sun Microsystems
Sun Blade T6320

SPECfp®_rate2006 = NC
SPECfp_rate_base2006 = NC

CPU2006 license: 6
Test sponsor: Sun Microsystems
Test date: Oct-2007
Tested by: Sun Microsystems

SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the 3 month availability requirement in the SPEC CPU2006 run rules due to a change in the availability date of the system.

Hardware
CPU Name: UltraSPARC T2
CPU Characteristics: 8 cores, 1 chip, 8 cores/chip, 8 threads/core
CPU MHz: 1417
FPU: Integrated
CPU(s) enabled: 8 cores, 1 chip, 8 cores/chip, 8 threads/core
CPU(s) orderable: 1 chip
Primary Cache: 16 KB I + 8 KB D on chip per core
Secondary Cache: 4 MB I+D on chip per chip
L3 Cache: None
Other Cache: None
Memory: 64 GB (16 x 4 GB)
Disk Subsystem: 1 x SUN72G 10K RPM SAS disk
Other Hardware: None

Software
Operating System: Solaris 10 8/07 (build s10s_u4wos_12b)
Compiler: Sun Studio 12 (patch build 2007/08/30)
Auto Parallel: No
File System: ufs
System State: Default
Base Pointers: 32-bit
Peak Pointers: 32-bit
Other Software: None

Non-Compliant
SPEC has determined that this result was not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter reported that the result would not meet the 3 month availability requirement in the SPEC CPU2006 run rules due to a change in the availability date of the system.

Results Table

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

Compiler Invocation Notes

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Operating System Notes

Processes were bound to cores using "submit" and "bind".

ulimit -s 131072 was used to limit the space consumed by the stack (and therefore make more space available to the heap).

/etc/system parameters
  autoup=600
    Causes pages older than the listed number of seconds to be written by fsflush.
  tune_t_fsflushr=10
    Controls how many seconds elapse between runs of the page flush daemon, fsflush.

The "webconsole" service was turned off using svcadm disable webconsole

Base Compiler Invocation

C benchmarks:
  cc

C++ benchmarks:

Fortran benchmarks:
  f90

Benchmarks using both Fortran and C:
  cc f90
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**Base Optimization Flags**

C benchmarks:
- `g -fast -xipo=2 -xpagesize=4M -xprefetch_level=2 -xalias_level=std`  
- `xprefetch_level=3`  
- `xprefetch_auto_type=indirect_array_access`

C++ benchmarks:
- `g0 -library=stlport4`  
- `fast`  
- `-xipo=2`  
- `-xpagesize=4M`  
- `-xdepend`  
- `-xalias_level=compatible`

Fortran benchmarks:
- `g -fast -xipo=2 -xpagesize=4M -xprefetch_level=2`

Benchmarks using both Fortran and C:
- `g -fast(cc) -fast(90)`  
- `-xipo=2`  
- `-xpagesize=4M`  
- `-xpreferch_level=2`  
- `-xalias_level=std`  
- `-xprefetch_level=3`  
- `-xprefetch_auto_type=indirect_array_access`

**Base Other Flags**

C benchmarks:
- `-xjobs=32`  
- `-V`

C++ benchmarks:
- `-xjobs=32`  
- `-verbose=diags,version`

Fortran benchmarks:
- `-xjobs=32`  
- `-V`

Benchmarks using both Fortran and C:
- `-xjobs=32`  
- `-V`
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Peak Compiler Invocation

C benchmarks:
   cc

C++ benchmarks:
   CC

Fortran benchmarks:
   f90

Benchmarks using both Fortran and C:
   cc f90

Peak Optimization Flags

C benchmarks:
   433.milc: base_peak = yes
   470.lbm: -g -xprofile=collect:/feedback(pass 1)
     -xprofile=use:/feedback(pass 2) -fast -xpagesize=4M
     -xprefetch_level=3 -xipo=2 -xrestrict
   482.sphinx3: -g -xprofile=collect:/feedback(pass 1)
     -xprofile=use:/feedback(pass 2) -fast -xpagesize=4M
     -xinline -xprefetch_level=2 -Wc,-Qlp-ol=1 -xrestrict
     -xalias_level=strong -fsimple=1 -xlinkopt=2 -lfast

C++ benchmarks:
   444.namd: -g0 -library=stlport4 -xprofile=collect:/feedback(pass 1)
     -xprofile=use:/feedback(pass 2) -fast -xpagesize=4M
     -xdepend -xalias_level=compatible -xprefetch_level=1
     -xlinkopt=2

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Sun Microsystems
Sun Blade T6320

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SPECfp_rate_base2006 = NC

CPU2006 license: 6
Test sponsor: Sun Microsystems
Tested by: Sun Microsystems

Test date: Oct-2007
Hardware Availability: Oct-2007
Software Availability: Sep-2007

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Peak Optimization Flags (Continued)

447.dealII: basepeak = yes
450.soplex: basepeak = yes
453.povray: -g0 -library=stlport: -xprofile=collect:.feedback(pass 1)
-xprofile=use:.feedback(pass 2) -fast -xpagesize=4M
-xdepend -xalias_level=compatible -xipo=2 -xrestrict
-xlinopt=2

Fortran benchmarks:
410.bwaves: basepeak = yes
416.gamess: -g -xprofile=collect:.feedback(pass 1)
-xprofile=use:.feedback(pass 2) -fast -xpagesize=4M
-xlinopt=2
434.zeusmp: -g -fast -xpagesize=4M -xipo=1 -qoption cg -Qeps:enabled=1
-qoption q -Qeps:ws=8 -lmopt
437.leslie3d: -g -fast -xpagesize_heap=4M -xpagesize_stack=64K
-xprefetch_level=3 -xprefetch=latx:1.6 -qoption cg -Qlp=1
-qoption cg -Qlp-fa=0 -qoption cg -Qlp-fl=1
-qoption cg -Qlp-av=448 -qoption cg -Qlp-t=4
-xfast -xpagesize=4M -fsimple=1
465.tonto: -g -fast -xpagesize=4M -xipo=2 -lfast

Benchmarks using both Fortran and C:
435.gromacs: -g -xprofile=collect:.feedback(pass 1)
-xprofile=use:.feedback(pass 2) -fast(cc) -fast(f90)
-xpagesize=4M -xipo=1 -xinline= -xarch=generic
-xchip=generic -fsimple=0

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Peak Optimization Flags (Continued)

436.cactusADM: -g -xprofile=collect:/feedback(pass 1) -xprofile=use:/feedback(pass 2) -fast -f90 -xpagesize=4M -xipo=2 -fsimple -xlinkopt=2

454.calculix: basepeak = yes

481.wrf: -g -xprofile=collect:/feedback(pass 1) -xprofile=use:/feedback(pass 2) -fast -f90 -xpagesize=4M -xlinkopt=2

Peak Other Flags

C benchmarks:
-xjobs=32 -V

C++ benchmarks:
-xjobs=32 -verbose,flags,version

Fortran benchmarks:
-xjobs=32 -V

Benchmarks using both Fortran and C:
-xjobs=32 -V

The flags file that was used to format this result can be browsed at

You can also download the XML flags source by saving the following link:
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