### SPEC® CFP2006 Result

**Sun Microsystems**  
**Sun Blade 6000**  

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<tr>
<th>Software</th>
<th>SPECfp(^\circledR)_rate2006 = 571</th>
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</table>

**Hardware**  

- **CPU Name:** UltraSPARC T2  
- **CPU Characteristics:**  
  - CPU MHz: 1417  
  - FPU: Integrated  
  - CPU(s) enabled: 80 cores, 10 chips, 8 cores/chip, 8 threads/core  
  - CPU(s) orderable: 1 to 10 Sun Blade T6320 Modules  
  - Primary Cache: 16 KB I + 8 KB D on chip per core  
  - Secondary Cache: 4 MB I+D on chip per chip  

**Software**  

- **Operating System:** Solaris 10 8/07 + patches (see notes)  
- **Compiler:** Sun Studio 12 (see patch information below)  
- **Auto Parallel:** No  
- **File System:** NFSv3  
- **System State:** Default  
- **Base Pointers:** 32-bit  
- **Peak Pointers:** 32-bit  
- **Other Software:** None  

Continued on next page
### 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

The tested configuration included patch 124867-02, 124861-04, 124863-01

### Operating System Notes

The Sun Blade 6000 was tested with 10x T6320 Modules, each containing 1x UltraSPARC T2 chip.

The Sun Blade T6320 is supported by Solaris 10 8/07 plus a factory-installed set of patches. As tested, the
Sun Microsystems
Sun Blade 6000

SPECfp_rate2006 = 571
SPECfp_rate_base2006 = 571

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

Operating System Notes (Continued)

system used a 15 January 2008 pre-release build of the patch set.

OS and test harness settings include:

- On each T6320 Module:
  - The "webconsole" service was turned off using
    svcadm disable webconsole
  - /etc/system settings:
    autoup = 600
    set bufhwm_pct=1
    set segmap_percent=2
    set tsb_rss_factor=128
    tune_t_fsflushr = 10
  - Process settings:
    ulimit -s 131072

- The "submit" feature was used with a perl procedure, which did arithmetic to derive processor numbers from the SPEC copy number

Additional details about the above points be found in the "Platform Settings" section of the associated flags file.

Base Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

Fortran benchmarks:
f90

Benchmarks using both Fortran and C:
cc f90

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
-M /usr/lib/ld/map.bssalign

C++ benchmarks:
-g0 -library=stlport4 -fast -xipo=2 -xpagesize=4M -xprefetch_level=2
-xdepend -xalias_level=compatible -M /usr/lib/ld/map.bssalign

Continued on next page
Sun Microsystems
Sun Blade 6000

SPECfp_rate2006 = 571
SPECfp_rate_base2006 = 571

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

Test date: Mar-2008
Hardware Availability: Feb-2008
Software Availability: Feb-2008

Base Optimization Flags (Continued)

Fortran benchmarks:
- `-g` `-fast` `-xipo=2` `-xpagesize=4M` `-xprefetch_level=2`
- `-M /usr/lib/ld/map.bssalign`

Benchmarks using both Fortran and C:
- `-g` `-fast(cc)` `-fast(f90)` `-xipo=2` `-xpagesize=4M` `-xprefetch_level=2`
- `-xalias_level=std` `-xpagesize=4M` `-xprefetch_level=3`
- `-xprefetch_auto_type=indirect_array_access` `-M /usr/lib/ld/map.bssalign`

Base Other Flags

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

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

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

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

Peak Optimization Flags

C benchmarks:
- `433.milc`: `basepeak = yes`
- `470.lbm`: `basepeak = yes`
- `482.sphinx3`: `basepeak = yes`

C++ benchmarks:
- `444.namd`: `basepeak = yes`
- `447.dealII`: `basepeak = yes`
- `450.soplex`: `basepeak = yes`
- `453.povray`: `basepeak = yes`

Fortran benchmarks:

Continued on next page
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Peak Optimization Flags (Continued)

410.bwaves: basepeak = yes
416.gamess: basepeak = yes
434.zeusmp: basepeak = yes
437.leslie3d: basepeak = yes
459.GemsFDTD: basepeak = yes
465.tonto: basepeak = yes

Benchmarks using both Fortran and C:
435.gromacs: basepeak = yes
436.cactusADM: basepeak = yes
454.calculix: basepeak = yes
481.wrf: basepeak = yes

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:
http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio12-and-gccfss4.2-multinode.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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