CFP2000 Result

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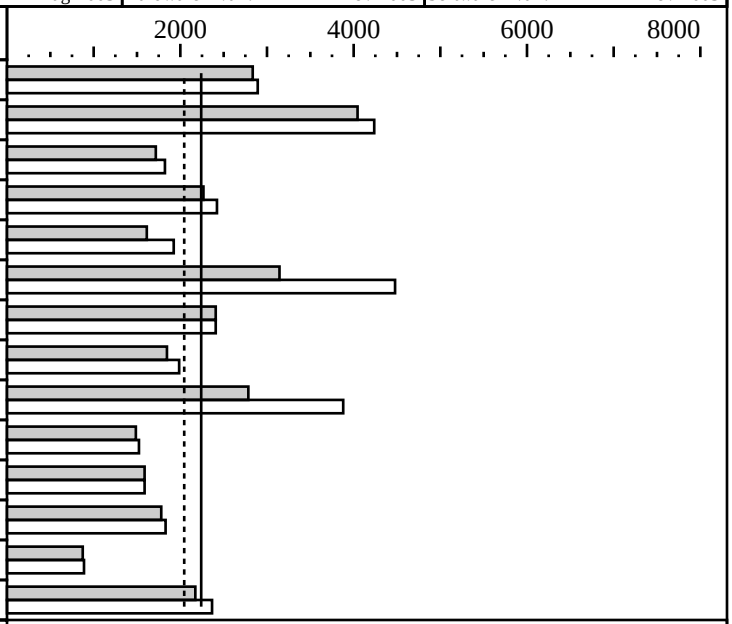
Sun Microsystems
Sun Fire X2100

SPECfp2000 = 2241

SPECfp_base2000 = 2045

SPEC license #: 6 | Tested by: Sun Microsystems, Santa Clara | Test date: Aug-2005 | Hardware Avail: Nov-2005 | Software Avail: Nov-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	56.4	2835	55.3	2893
171.swim	3100	76.6	4045	73.2	4237
172.mgrid	1800	105	1717	98.8	1822
173.applu	2100	92.7	2267	86.7	2423
177.mesa	1400	86.8	1613	72.8	1924
178.galgel	2900	92.2	3144	64.8	4478
179.art	2600	108	2408	108	2408
183.equake	1300	70.4	1846	65.4	1986
187.facerec	1900	68.2	2785	49.0	3879
188.ammp	2200	148	1487	144	1523
189.lucas	2000	126	1588	126	1588
191.fma3d	2100	118	1780	115	1830
200.sixtrack	1100	126	874	124	888
301.apsi	2600	120	2173	110	2366



Hardware

CPU:	AMD Opteron (TM) 154
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1
Parallel:	No
Primary Cache:	64KBI + 64KBD (on chip) per core
Secondary Cache:	1024KB (I+D) (on chip) per core
L3 Cache:	N/A
Other Cache:	N/A
Memory:	4GB (4x1GB, PC3200 CL3 DDR SDRAM)
Disk Subsystem:	SATA, 80GB, 10K RPM
Other Hardware:	None

Software

Operating System:	Solaris 10 3/05 HW1
Compiler:	Sun Studio 11
File System:	ufs
System State:	Multi-user

Notes/Tuning Information

```
Compiler invocation:
  C: cc
  F90: f90
  F77: f90

FDO:  PASS1= -xprofile=collect:./feedback PASS2= -xprofile=use:./feedback
      fdo_pre0:  rm -rf ./feedback.profile


Floating point base flags:
  F90:   -fast -xipo=2 -xarch=amd64 -xprefetch_level=3 ONESTEP=yes
    C:   -fast -xcrossfile -xalias_level=std -xpagesize=2m ONESTEP=yes

Floating point peak flags:
 ONESTEP=yes for all benchmarks

 168.wupwise:   -fast -xpad=common:3969 -xipo=2 -xarch=amd64 -xprefetch_level=3  -xpagesize_heap=2m
```

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Notes/Tuning Information (Continued)

```
 171.swim:      -fast -xpad=common:3969 -xipo=2 -xvector=simd -xprefetch_level=3 -Qoption iropt
                  -Atile:skewp,-Ainline:cs=700 -xarch=amd64 -Qoption ube_ipa -inl_alt
                  -xpagesize_stack=2m
 172.mgrid:     -fast -stackvar -xpad=common:900 -xipo=2 -xarch=amd64 -xprefetch_level=3 -xvector
                  -xpagesize=2m -Qoption ld -M,/usr/lib/ld/map.bssalign
 173.applu:       -fast -stackvar -xO4 -xipo=2 -xprefetch_level=3 -xarch=amd64
                  -qoption iropt -Rloop_dist -xpagesize_heap=2m
 177.mesa:      -fast -xO4 -xipo=2 -Wd,-iropt-prof -xarch=amd64 -xalias_level=strong -xpagesize=2m +FDO
 178.galgel:    -fast -xipo=2 -xpagesize_heap=2m -xprefetch_level=3 -xvector=simd -xarch=amd64
                  RM_SOURCES=lapak.f90
                  EXTRALIBS=-xlic_lib=sunperf
 179.art:         basepeak=yes
 183.equake:     -fast -xipo=2 -xprefetch -xalias_level=strong -xpagesize=2m -lmopt -lm +FDO
 187.facerec:     -fast -xO4 -xipo=2 -xprefetch_level=3 -xpagesize=2m
                  RM_SOURCES=cfftb.f90 cffti.f90 cfftf.f90
                  EXTRALIBS=-xlic_lib=sunperf
 188.ammp:       -fast -xO4 -xipo=2 -xarch=amd64 -xalias_level=std -xpagesize_heap=2m -lmopt -lm
 189.lucas:       basepeak=yes
 191.fma3d:      -fast -fsimple=1 -xipo=2 -xprefetch_level=3 -xarch=amd64 -xpagesize_heap=2m +FDO
 200.sixtrack:    -fast -xipo=2 -O -xprefetch_level=3 -xarch=amd64 -xpagesize_heap=2m
                  -Qoption ld -M,/usr/lib/ld/map.bssalign +FDO
 301.apsi:        -fast -xO4 -xipo=2 -xprefetch_level=3 -xarch=amd64 -xpagesize=2m

Portability:
 178.galgel:  -e -fixed -DSPEC_CPU2000_LP64

Shell Environments:
  Stack size set to unlimited via "ulimit -s unlimited"

Kernel Parameters (/etc/system):
  autoup=900
  tune_t_fsflushr=1

Processes were bound to CPU using submit=pbind

Default BIOS setting was used
```