CFP2000 Result

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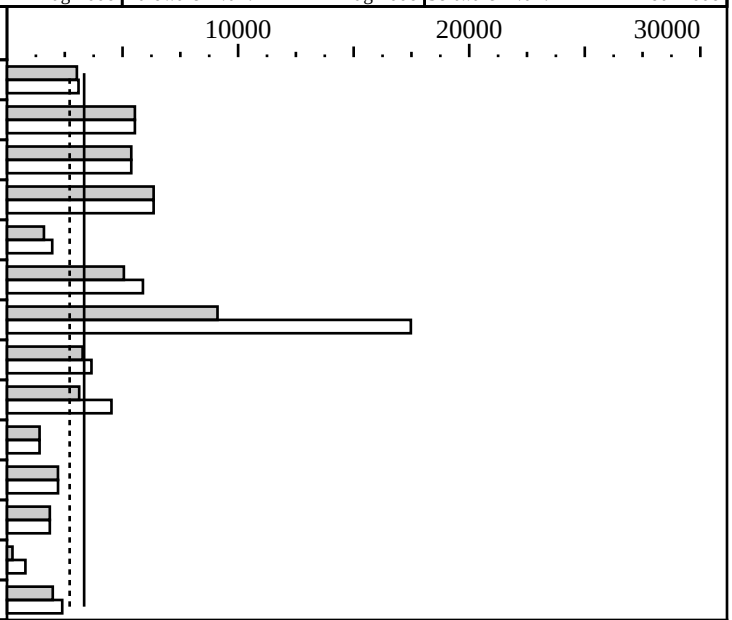
Sun Microsystems
Sun Fire X2200 M2

SPECfp2000 = 3338

SPECfp_base2000 = 2711

SPEC license #: 6 | Tested by: Sun Microsystems, Santa Clara | Test date: Aug-2006 | Hardware Avail: Aug-2006 | Software Avail: Jul-2006

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	52.9	3023	51.7	3095
171.swim	3100	56.0	5533	56.0	5533
172.mgrid	1800	33.5	5377	33.5	5377
173.applu	2100	33.1	6344	33.1	6344
177.mesa	1400	87.6	1598	71.5	1957
178.galgel	2900	57.3	5057	49.3	5882
179.art	2600	28.5	9109	14.9	17474
183.equake	1300	39.7	3272	35.6	3655
187.facerec	1900	60.8	3124	42.0	4521
188.ammp	2200	156	1409	156	1409
189.lucas	2000	90.7	2205	90.6	2208
191.fma3d	2100	113	1852	113	1852
200.sixtrack	1100	465	237	138	797
301.apsi	2600	131	1980	109	2390



Hardware

CPU:	AMD Opteron (TM) 2218
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 (order by # of chips)
Parallel:	Yes
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:	16GB (8x2GB, DDR2-667 CL5 ECC Reg)
Disk Subsystem:	SATA,250GB,7200RPM
Other Hardware:	None

Software

Operating System:	Solaris 10 6/06
Compiler:	Sun Studio 11 with Patches
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:
  Fortran: -fast -xautopar -xipo=2 -xarch=amd64
        C: -fast  -xipo=2 -xalias_level=std -xpagesize=2m

Floating point peak flags:
 ONESTEP=yes for all benchmarks

 168.wupwise:   -fast -xautopar -xpad=common:3969 -xipo=2 -xarch=amd64 -xprefetch_level=3  -xpagesize_heap=2m
 171.swim:       basepeak=yes
```

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Notes/Tuning Information (Continued)

```
 172.mgrid:      basepeak=yes
 173.applu:      basepeak=yes
 177.mesa:      -fast -xautopar -xO4 -xipo=2 -Wd,-iropt-prof -xarch=amd64 -xalias_level=strong -xpagesize=2m +FDO
 178.galgel:     -fast -xautopar -stackvar -xipo=2 -xarch=amd64 -xprefetch=no%auto
                 RM_SOURCES=lapak.f90
                 EXTRA_LIBS        = -xlic_lib=sunperf
 179.art:       -fast -xipo=2 -xalias_level=strong -xprefetch -Wd,-iropt-prof -xpagesize=2m +FDO
 183.equake:     -fast -Wd,-iropt-prof -xipo=2 -xprefetch -xalias_level=strong -xpagesize=2m
 187.facerec:    -fast -xO4 -xipo=2 -xprefetch_level=3 -xpagesize=2m
                 RM_SOURCES=cfftb.f90 cffti.f90 cfftf.f90
                 EXTRA_LIBS=-xlic_lib=sunperf
 188.ammp:       basepeak=yes
 189.lucas:     -fast -xautopar -Qoption ube_ipa -inl_alt -xipo=2 -xarch=amd64 -xprefetch_level=3
 191.fma3d:      basepeak=yes
 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:  -fixed

Shell Environments:
  Stack size set to unlimited via "ulimit -s unlimited"
  export PARALLEL=4

The following patches were applied to Sun Studio 11 compiler:
120759-07 : x86/x64
121016-03 : x86 C
121020-03 : x86 F90
121018-03 : x86 C++

Default BIOS setting was used
```