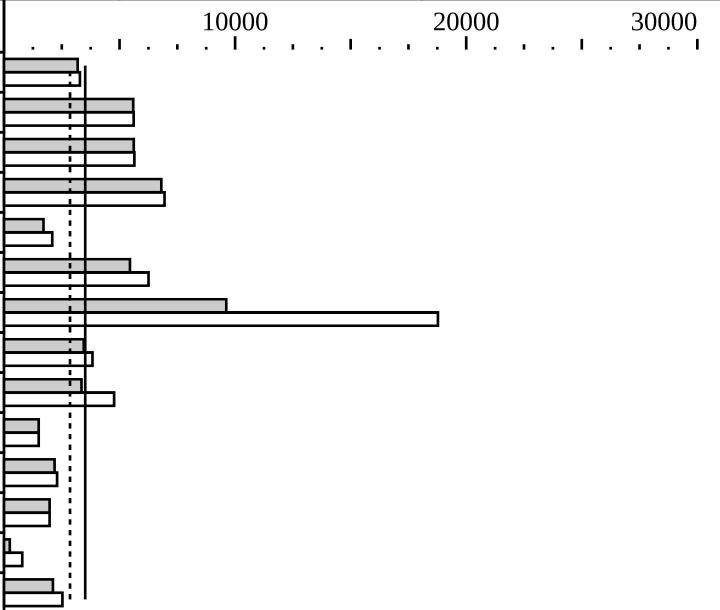
CFP2000 Result

Sun Microsystems
Sun Fire X4100 M2

SPECfp2000 = 3515
SPECfp_base2000 = 2857

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	50.2	3188	48.7	3284
171.swim	3100	55.4	5591	55.2	5611
172.mgrid	1800	32.1	5615	31.9	5642
173.applu	2100	30.9	6807	30.2	6946
177.mesa	1400	81.9	1709	67.1	2088
178.galgel	2900	53.2	5450	46.4	6254
179.art	2600	27.0	9617	13.8	18776
183.equake	1300	37.7	3451	34.0	3828
187.facerec	1900	56.7	3353	39.9	4764
188.ammp	2200	147	1501	147	1501
189.lucas	2000	91.4	2188	87.1	2297
191.fma3d	2100	106	1973	106	1973
200.sixtrack	1100	441	250	139	790
301.apsi	2600	123	2117	103	2528



Hardware

CPU:	AMD Opteron (TM) 2220 SE
CPU MHz:	2800
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:	SAS,72GB,10K RPM
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

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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 -xautopar -xipo=2 -xarch=amd64 ONESTEP=yes
    C:   -fast  -xipo=2 -xalias_level=std -xpagesize=2m ONESTEP=yes

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:      -fast -xautopar -xipo=2 -xarch=amd64  -lmvec
```

Notes/Tuning Information (Continued)

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 172.mgrid:     -fast -xautopar -xipo=2 -xarch=amd64  -lmvec
 173.applu:     -fast -xprefetch=auto -xprefetch_level=3 -Qoption iropt -Rloop_dist  -xautopar -xipo=2 -xarch=amd64
 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
              EXTRA_LIBS        = -xlic_lib=sunperf
 179.art:       -fast -xvector -xipo=2 -xalias_level=strong -xprefetch -Wd,-iropt-prof -xpagesize=2m -lmvec +FDO
 183.equake:    -fast -xvector -Wd,-iropt-prof -xipo=2 -xprefetch -xalias_level=strong -xpagesize=2m -lmvec
 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:      basepeak=yes
 189.lucas:     -fast -xprefetch=auto -xprefetch_level=3 -Qoption iropt -Rloop_dist
                -xautopar -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++

This result was measured on the Sun Fire X4100 M2. In addition,
Sun has submitted the same result for the Sun Fire X4200 M2, which is
electronically equivalent to the Sun Fire X4100 M2.

Default BIOS setting was used
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