CFP2000 Result

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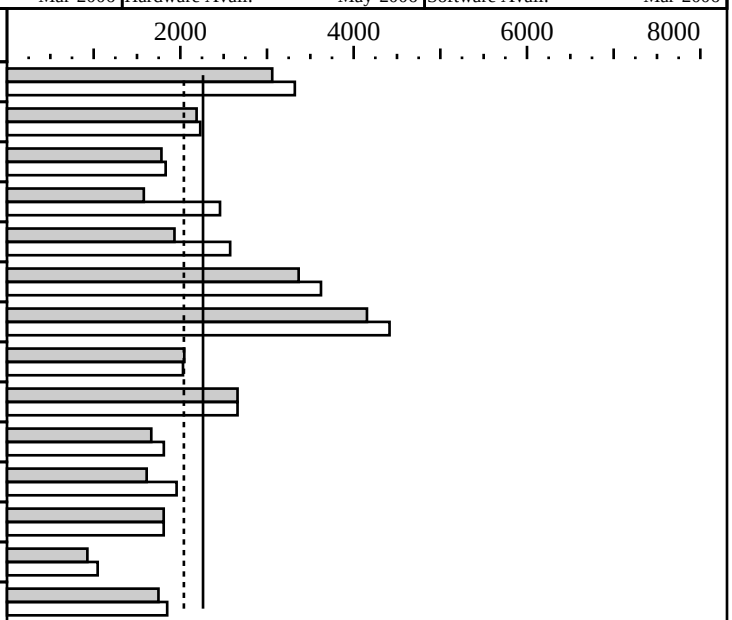
Sun Microsystems
Sun Fire X2100

SPECfp2000 = 2262

SPECfp_base2000 = 2041

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	52.3	3060	48.2	3321
171.swim	3100	142	2188	139	2230
172.mgrid	1800	101	1782	98.3	1831
173.applu	2100	133	1579	85.4	2458
177.mesa	1400	72.5	1932	54.4	2575
178.galgel	2900	86.2	3365	80.0	3623
179.art	2600	62.6	4153	58.9	4414
183.equake	1300	63.5	2046	64.0	2031
187.facerec	1900	71.4	2660	71.4	2660
188.ammp	2200	132	1665	122	1810
189.lucas	2000	124	1612	102	1957
191.fma3d	2100	116	1808	116	1808
200.sixtrack	1100	119	927	105	1046
301.apsi	2600	149	1748	141	1848



Hardware

CPU:	AMD Opteron (TM) 156
CPU MHz:	3000
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 ECC SDRAM)
Disk Subsystem:	SATA,80GB,10K RPM
Other Hardware:	None

Software

Operating System:	SUSE LINUX Enterprise Server 9 SP3 (x86_64)
Compiler:	PathScale EKOPath(TM) Compiler Suite, Version 2.3 PGI Compiler for Linux, Release 6.1-3 AMD Core Mathematical Library (ACML), Version 3.0.1
File System:	ufs
System State:	Multi-user

Notes/Tuning Information

```
Portability flags:
   178.galgel (pgf90)   : -Mfixed

Feedback Optimization +FDO:
   PGI     : PASS1=-Mpfi               PASS2=-Mpfo
   PathSale: PASS1=-fb_create fbdata   PASS2=-fb_opt fbdata

Baseline Optimization Flags:
   C programs      : pgcc  -fastsse -Mipa=fast,inline +FDO
   Fortran programs: pgf90 -fastsse -Mipa=fast,inline +FDO

Peak Tuning Flags:
 168.wupwise:  pathf95 -Ofast -LNO:prefetch_ahead=5:prefetch=3
               -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3
               -IPA:linear=on:plimit=50000:callee_limit=5000
               -CG:local_fwd_sched=on -m3dnow
 171.swim:     pathf95 -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 -m3dnow
```

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Notes/Tuning Information (Continued)

```
 172.mgrid:    pathf95 -Ofast -CG:gcm=off -OPT:IEEE_a=3:unroll_size=200
               -LNO:fusion=2:fission=1:blocking=off:prefetch_ahead=2
               -WOPT:mem_opnds=on:aggstr=0
 173.applu:    pathf95 -Ofast -CG:local_fwd_sched=on -OPT:ro=3 -TENV:X=3
               -LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3
               +FDO
 177.mesa:     pathf95 -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on
               -WOPT:mem_opnds=on +FDO
 178.galgel:   pgf90  -fastsse -O4 -Mipa=fast,inline ONESTEP=yes +FDO
                RM_SOURCES=lapak.f90
                EXTRALIBS=-lacml
 179.art:      pgcc -fastsse -Munroll=n:9 -Mipa=fast,inline -tp k8-32
 183.equake:   pgcc -fastsse -Mflushz -Mnovect -Mipa=fast,inline ONESTEP=yes +FDO
 187.facerec:  pgf90  basepeak=1
 188.ammp:     pathcc -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
               -fno-math-errno -TENV:X=4 +FDO
 189.lucas:    pathf95 -O3 -OPT:ro=3:fast_nint=off:unroll_size=256
               -WOPT:mem_opnds=on +FDO
 191.fma3d:    pgf90  basepeak=1
 200.sixtrack: pathf95 -O3 -OPT:Ofast:Olimit=6000:early_intrinsics=on
               -fno-math-errno -CG:load_exe=1 +FDO
 301.apsi:     pathf95 -Ofast -CG:load_exe=0 -LNO:prefetch=0:simd=2

Default BIOS settings was used.
```