CFP2000 Result

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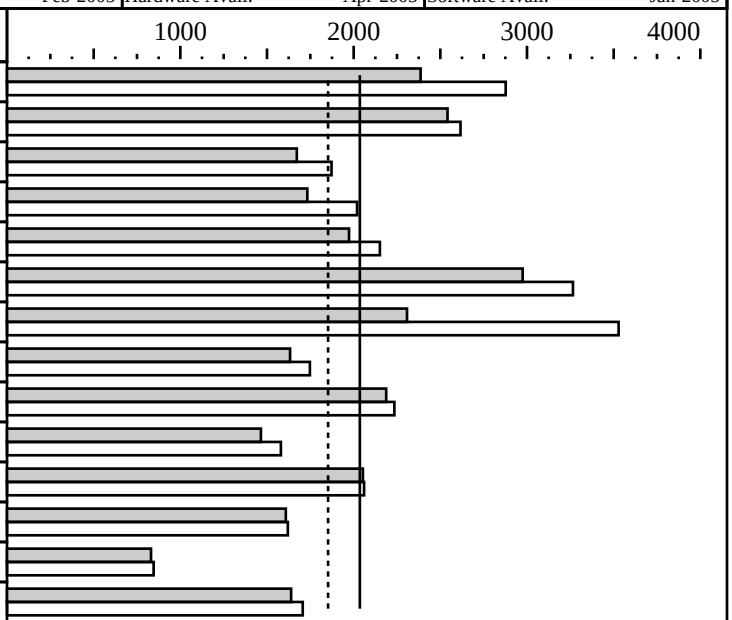
Sun Microsystems
Sun Fire V20z

SPECfp2000 = 2036

SPECfp_base2000 = 1852

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	67.1	2386	55.6	2877
171.swim	3100	122	2542	118	2616
172.mgrid	1800	108	1672	96.1	1872
173.applu	2100	121	1733	104	2020
177.mesa	1400	70.9	1973	65.1	2151
178.galgel	2900	97.5	2975	88.8	3265
179.art	2600	113	2308	73.7	3528
183.equake	1300	79.6	1633	74.4	1748
187.facerec	1900	86.8	2188	85.0	2235
188.ammp	2200	150	1465	139	1580
189.lucas	2000	97.4	2053	97.1	2060
191.fma3d	2100	131	1609	130	1620
200.sixtrack	1100	132	831	130	846
301.apsi	2600	159	1639	152	1706



Hardware

CPU:	AMD Opteron (TM) 252
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1,2
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB (I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	4GB (4x1GB, PC3200 CL3 DDR)
Disk Subsystem:	SCSI, 73GB, 10K RPM
Other Hardware:	None

Software

Operating System:	SUSE LINUX Enterprise Server 9
Compiler:	PathScale EKOPath Compiler Suite, Release 2.0 AMD Core Math Library V2.5.1
File System:	Linux/ext3
System State:	Multi-user, Run level 3

Notes/Tuning Information

```
+FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata
+ACML  -L/opt/acml2.5.1/pathscale64/lib -lacml,
       means linking with AMD Core Math Library V2.5.1

Baseline optimization
  C programs:       -Ofast -WOPT:mem_opnds=on +FDO
  Fortran programs: -Ofast -LNO:fusion=2 -OPT:fast_complex +FDO

Portability Flags:
  178.galgel: -fixedform

Peak Tuning:
168.wupwise  : -Ofast -LNO:prefetch_ahead=5:prefetch=3
               -OPT:unroll_times_max=8:unroll_size=128:IEEE_NaN_Inf=off:ro=3 -TENV:X=4
               -IPA:space=1000:linear=on:plimit=50000:callee_limit=5000
               -INLINE:aggressive=on
```

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Notes/Tuning Information (Continued)

```
171.swim     : -Ofast -LNO:fusion=2 -m3dnow
172.mgrid    : -O3 -LNO:fusion=2:blocking=off
               -OPT:Ofast:unroll_times_max=8:unroll_size=256:ro=3
               -CG:gcm=off:cflow=off -m3dnow
173.applu    : -Ofast -CG:local_fwd_sched=on
               -LNO:fusion=2:fission=2:full_unroll_size=10000:prefetch=3
               -OPT:ro=3 -TENV:X=3 -WOPT:val=2
177.mesa     : -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on +FDO
178.galgel   : -Ofast -OPT:fast_complex -CG:use_movlpd=on +FDO +ACML
               RM_SOURCES=lapak.f90
179.art      : -O3 -OPT:ro=2:div_split=on:alias=typed -fno-math-errno -m32
183.equake   : -Ofast -WOPT:mem_opnds=on -m32
187.facerec  : -Ofast -OPT:treeheight=on:IEEE_NaN_Inf=off:ro=3 -CG:load_exe=0
               -LNO:fusion=2 -IPA:plimit=1500 +FDO
188.ammp     : -O3 -OPT:alias=disjoint:unroll_times_max=8:Ofast:ro=3
               -fno-math-errno -TENV:X=4 +FDO
189.lucas    : -Ofast -CG:local_fwd_sched=on -LNO:fusion=2 +FDO
191.fma3d    : -O2 -ipa -CG:load_exe=1 -OPT:Ofast:IEEE_arith=3:ro=3
               -WOPT:mem_opnds=on:retype_expr=on -IPA:pu_reorder=1 +FDO
200.sixtrack : -O3 -OPT:Ofast:Olimit=6000 -fno-math-errno -CG:load_exe=1 +FDO
301.apsi     : -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0

Default BIOS setting was used. Only one CPU was present in the system.
```