CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

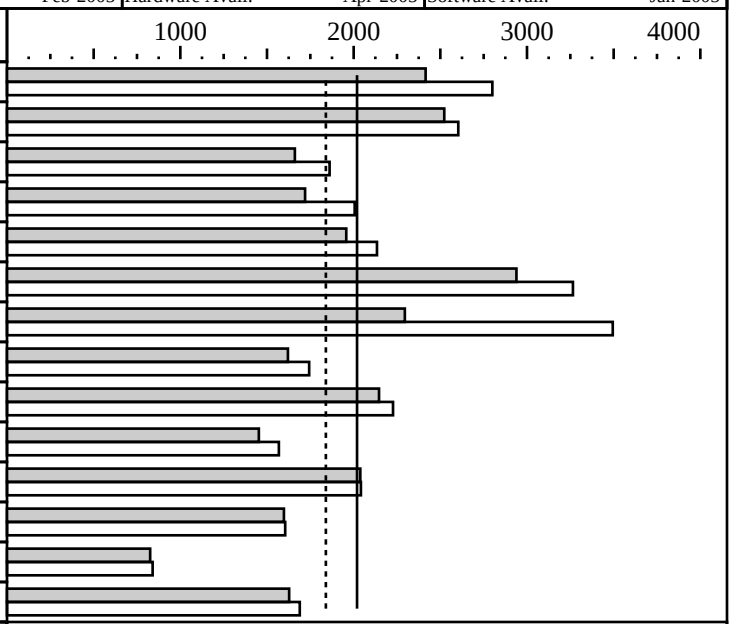
Sun Microsystems
Sun Fire V40z

SPECfp2000 = 2020

SPECfp_base2000 = 1840

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	66.2	2415	57.1	2800
171.swim	3100	123	2523	119	2604
172.mgrid	1800	108	1661	96.7	1861
173.applu	2100	122	1720	105	2006
177.mesa	1400	71.5	1957	65.6	2134
178.galgel	2900	98.7	2939	88.8	3265
179.art	2600	113	2295	74.4	3495
183.equake	1300	80.2	1621	74.6	1743
187.facerec	1900	88.5	2146	85.3	2227
188.ammp	2200	151	1453	140	1568
189.lucas	2000	98.1	2038	98.0	2042
191.fma3d	2100	131	1598	131	1605
200.sixtrack	1100	133	826	131	840
301.apsi	2600	160	1628	154	1689



Hardware

CPU:	AMD Opteron (TM) 852
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1,2,4
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
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

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.
```