CFP2000 Result

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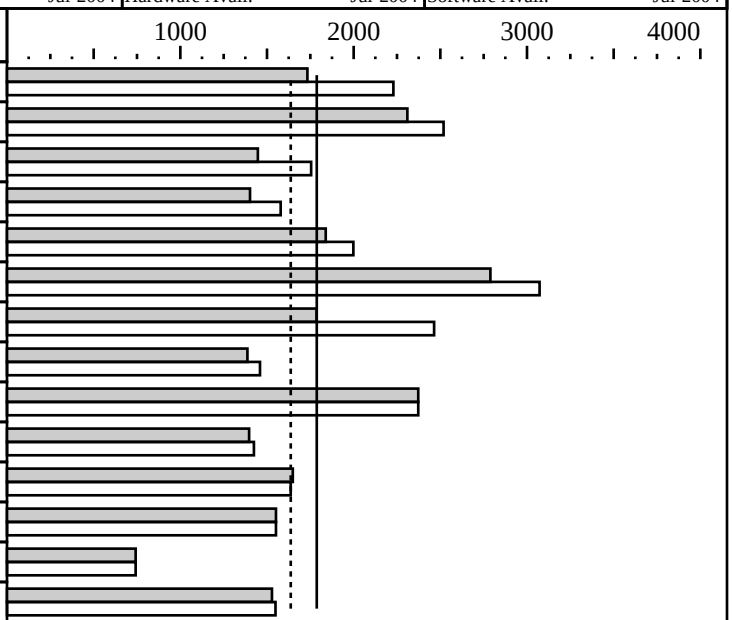
Sun Microsystems
Sun Java Workstation W1100z

SPECfp2000 = 1787

SPECfp_base2000 = 1637

SPEC license #: 6 | Tested by: Sun Microsystems, Santa Clara | Test date: Jul-2004 | Hardware Avail: Jul-2004 | Software Avail: Jul-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	92.3	1733	71.8	2229
171.swim	3100	134	2310	123	2519
172.mgrid	1800	124	1447	103	1755
173.applu	2100	150	1402	133	1579
177.mesa	1400	76.1	1839	70.1	1998
178.galgel	2900	104	2789	94.4	3073
179.art	2600	146	1786	106	2464
183.equake	1300	93.7	1387	89.1	1460
187.facerec	1900	80.1	2373	80.1	2373
188.ammp	2200	158	1397	154	1425
189.lucas	2000	121	1649	122	1637
191.fma3d	2100	135	1552	135	1552
200.sixtrack	1100	148	742	148	742
301.apsi	2600	170	1529	168	1549



Hardware

CPU:	AMD Opteron (TM) 150
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB (I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	4x1GB, PC3200 CL3 DDR SDRAM ECC Registered
Disk Subsystem:	IDE, 80GB, 7200RPM
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux WS 3 (AMD64)
Compiler:	PathScale EKO Compiler Suite, Release 1.1 Red Hat gcc 3.5 ssa (from RHEL WS 3) PGI Fortran 5.2 (build 5.2-0E) AMD Core Math Library (Version 2.0) for AMD64
File System:	Linux/ext3
System State:	Multi-user, Run level 3

Notes/Tuning Information

```
A two-pass compilation method is used where indicated:
  +PSFDO indicates PathScale feedback
           PASS1: -fb_create fbdata
           PASS2: -fb_opt    fbdata
  +ACML is the AMD Core Math Library V2.0

Compilers:
   C:       pathcc  (PathScale C) unless otherwise noted
   Fortran: pathf90 (PathScale f90) unless otherwise noted
If other compilers are used, they are indicated as:
   gcc:   Gnu C
   pgf90: PGI Fortran

Floating Point base tuning:
 Fortran: pgf90 -fastsse  -Mipa=fast -Msmart
 C:       pathcc -Ofast -WOPT:mem_opnds=on +PSFDO
```

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Notes/Tuning Information (Continued)

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Floating Point peak tuning:
168.wupwise:  pgf90 -fastsse -Mipa=fast,inline -Msmart
171.swim:     -Ofast -OPT:ro=3 -LNO:fusion=2:prefetch=2
172.mgrid:    -O3 -OPT:Ofast
              -LNO:fusion=2:blocking=off:ou_max=5:sclrze=off:prefetch=2
              -OPT:unroll_times=8:unroll_size=256:ro=3
              -CG:gcm=off:cflow=off
173.applu:    -O3 -ipa
              -LNO:fusion=2:interchange=OFF:blocking=OFF:ou_prod_max=10
              :ou_max=5:prefetch=2 -OPT:IEEE_arith=1:ro=3:unroll_size=0
             -TENV:X=4 -WOPT:mem_opnds=on:retype_expr=on:val=0 -CG:local_fwd_sched=on
177.mesa:     -O2 -ipa -OPT:Ofast -fno-math-errno -CG:local_fwd_sched=on +PSFDO
178.galgel:   pgf90 -fastsse -Mipa=fast -mp +ACML
              RM_SOURCES=lapak.f90 ONESTEP
179.art:      -O3 -OPT:Ofast -fno-math-errno -m32 +PSFDO
183.equake:   gcc -DSPEC_CPU2000_LP64 -O3 -funroll-all-loops -ffast-math
              -finline-limit=2000 ONESTEP
187.facerec:  basepeak=true
188.ammp:     -O3 -OPT:alias=disjoint:unroll_times=8:Ofast:ro=3
              -fno-math-errno -TENV:X=4 +PSFDO
189.lucas:  pgf90 -fastsse -Mipa=fast,inline -Msmart
191.fma3d:  basepeak=true
200.sixtrack: basepeak=true
301.apsi:     -Ofast -TENV:X=4 -LNO:fusion=2:prefetch=0:blocking=off
              -IPA:linear=on:plimit=525

Portability:
178.galgel:     -Mfixed

Notes:
     BIOS build A5S1, default setting was used.
```