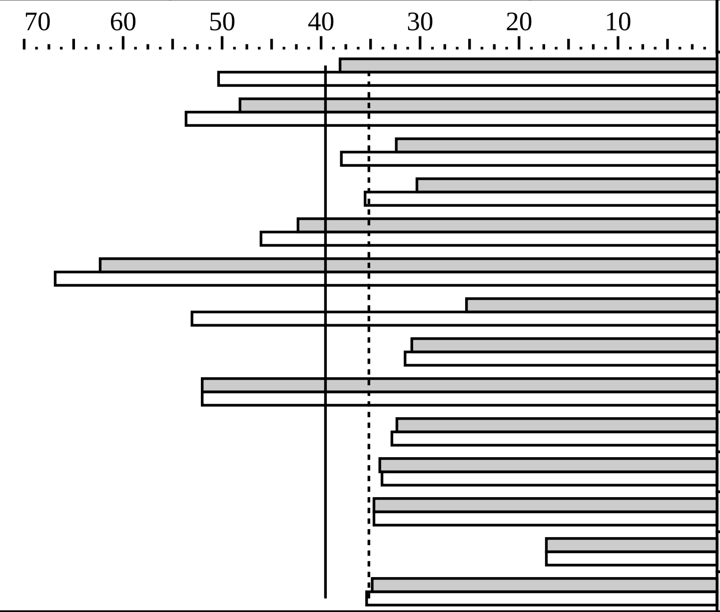
CFP2000 Result

Sun Microsystems
Sun Java Workstation W2100z

SPECfp_rate2000 = 39.6
SPECfp_rate_base2000 = 35.2

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	97.5	38.1	2	73.7	50.4
171.swim	2	149	48.2	2	134	53.6
172.mgrid	2	129	32.4	2	110	38.0
173.applu	2	161	30.3	2	137	35.6
177.mesa	2	76.7	42.3	2	70.5	46.1
178.galgel	2	108	62.3	2	101	66.9
179.art	2	238	25.3	2	114	53.0
183.equake	2	97.8	30.8	2	95.7	31.5
187.facerec	2	84.8	52.0	2	84.8	52.0
188.ammp	2	158	32.3	2	155	32.8
189.lucas	2	136	34.1	2	137	33.8
191.fma3d	2	141	34.7	2	141	34.7
200.sixtrack	2	148	17.2	2	148	17.2
301.apsi	2	173	34.8	2	170	35.4

Hardware

CPU:	AMD Opteron (TM) 250
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 1 core/chip
CPU(s) orderable:	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:	8x1GB, PC3200 CL3 DDR SDRAM ECC Registered
Disk Subsystem:	SCSI, 73GB, 10K RPM
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)

```
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.
```