CFP2000 Result

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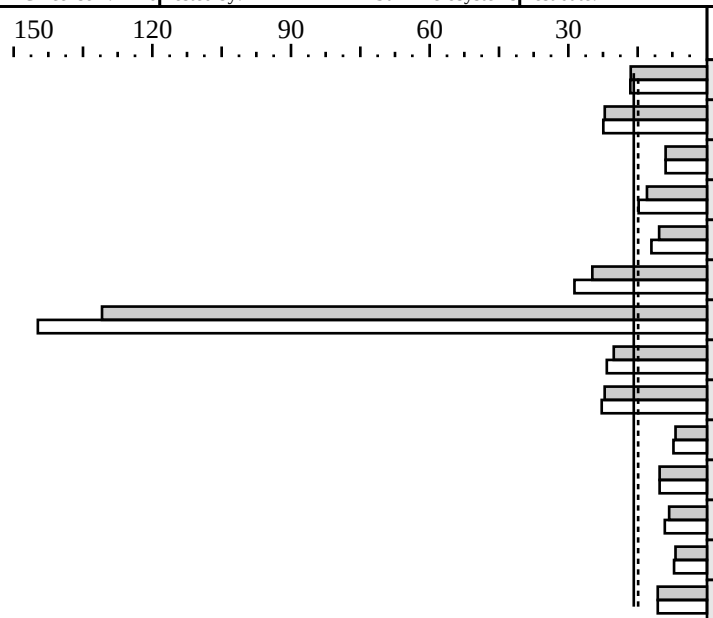
Sun Microsystems
Sun Ultra 45

SPECfp_rate2000 = 15.8

SPECfp_rate_base2000 = 14.9

SPEC license #: 6 | Tested by: Sun Microsystems | Test date: Feb-2006 | Hardware Avail: Jan-2006 | Software Avail: Jan-2006



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	1	112	16.5	1	112	16.6
171.swim	1	163	22.1	1	160	22.4
172.mgrid	1	233	8.95	1	233	8.95
173.applu	1	188	13.0	1	165	14.8
177.mesa	1	157	10.4	1	135	12.0
178.galgel	1	136	24.8	1	117	28.7
179.art	1	23.0	131	1	20.8	145
183.equake	1	74.8	20.2	1	69.6	21.7
187.facerec	1	99.6	22.1	1	96.8	22.8
188.ammp	1	375	6.81	1	352	7.26
189.lucas	1	226	10.3	1	226	10.3
191.fma3d	1	298	8.19	1	267	9.13
200.sixtrack	1	187	6.81	1	179	7.13
301.apsi	1	283	10.7	1	283	10.6

Hardware

CPU:	UltraSPARC IIIi
CPU MHz:	1600
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1,2 (order by # of chips)
Parallel:	No
Primary Cache:	32KBI+64KBD per chip (on chip)
Secondary Cache:	1MB(I+D) per chip (on chip)
L3 Cache:	None
Other Cache:	None
Memory:	8GB(4x2GB DIMMs)
Disk Subsystem:	SATA,250GB,SATA
Other Hardware:	None

Software

Operating System:	Solaris 10 1/06
Compiler:	Sun Studio 11
File System:	ufs (default ufs logging on with Solaris 10)
System State:	Multi-User

Notes/Tuning Information

```
Compiler invocation:
  C: cc
  F90: f90
  F77: f90

Floating point base flags:
    C:  -fast -xipo=2 -xalias_level=std with ONESTEP=yes and feedback
  F90:  -fast -xipo=2 with ONESTEP=yes and feedback

Floating point peak flags:
 ONESTEP=yes and feedback for all benchmarks, unless otherwise noted

 168.wupwise: -fast -xipo=2 -Qoption iropt -Ainline:inc=800:cp=1
 171.swim:    -fast -xpad=common:3969 -xpagesize=64K -xprefetch=latx:1.6
              -Qoption iropt -Atile:skewp,-Ainline:cs=700
              (no feedback)
 172.mgrid: basepeak = yes
```

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Notes/Tuning Information (Continued)

```
 173.applu:    -fast -xipo=2
               -Qoption cg -Qlp=1-av=192-fa=1,-Qms_pipe+prefolim=7
               -Qoption iropt -Aujam:inner=g
 177.mesa:     -fast -xipo=2 -xalias_level=strong -xrestrict
               -Wc,-Qms_pipe+unoovf
 178.galgel:   -fast -xipo=2 -Qoption iropt -Addint:sf=9
               EXTRALIBS=-xlic_lib=sunperf
               RM_SOURCES=lapak.f90
 179.art:      -fast -xipo=2 -xalias_level=std -xprefetch=latx:1.5
 183.equake:   -fast -xipo=2 -xalias_level=strong -xprefetch_level=2
 187.facerec:  -fast -xipo=2 -xprefetch=latx:1.5
 188.ammp:     -fast -xarch=v9b -xipo=2 -xalias_level=std -lmopt -lm
 189.lucas:    basepeak=yes
 191.fma3d:    -fast -xipo=2 -stackvar -xprefetch_level=3
               -Qoption iropt -Apf:pdl=1
               -xO4 -dalign -xchip=ultra3 -xarch=v8plusb -fsimple=2 -xprefetch=no
 301.apsi:     -fast -xipo=2

Feedback is done as follows, unless otherwise noted:
 fdo_pre0:  rm -rf ./feedback.profile ./SunWS_cache
 PASS1:     -xprofile=collect:./feedback
 PASS2:     -xprofile=use:./feedback

Portability:
 178.galgel:  -fixed

Shell Environments:
  Stack size set to unlimited via "ulimit -s unlimited"
  MPSSHEAP=512K
  MPSSSTACK=512K
  LD_PRELOAD=mpss.so.1

Kernel Parameters (/etc/system):
 autoup=900
 tune_t_fsflushr=1

System was tested in 1 CPU configuration.
```