CFP2000 Result

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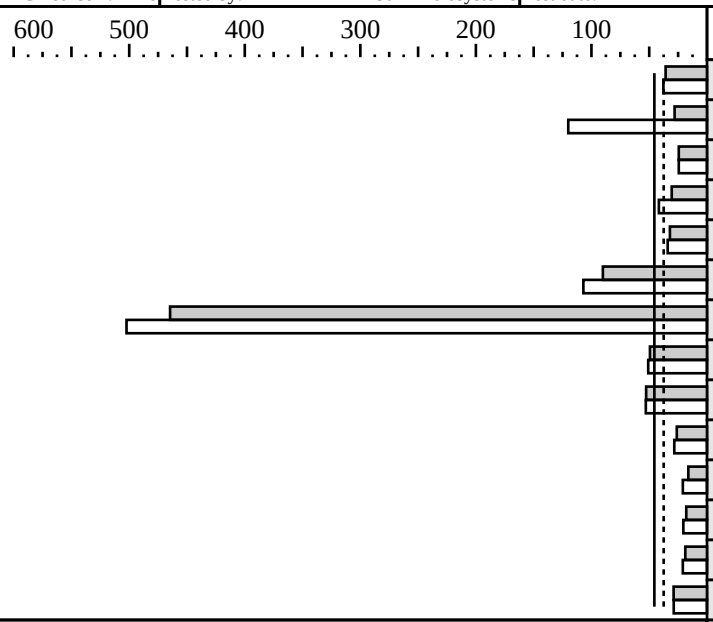
Sun Microsystems
Sun Fire V480 (1200MHz)

SPECfp_rate2000 = 45.5

SPECfp_rate_base2000 = 37.5

SPEC license #: 6 | Tested by: Sun Microsystems | Test date: Oct-2003 | Hardware Avail: Oct-2003 | Software Avail: Dec-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	207	35.8	4	197	37.7
171.swim	4	513	28.0	4	120	120
172.mgrid	4	342	24.4	4	342	24.4
173.applu	4	319	30.5	4	234	41.6
177.mesa	4	202	32.1	4	191	34.0
178.galgel	4	149	90.1	4	126	107
179.art	4	26.0	465	4	24.0	502
183.equake	4	122	49.4	4	119	50.9
187.facerec	4	167	52.7	4	167	52.9
188.ammp	4	391	26.1	4	361	28.3
189.lucas	4	574	16.2	4	444	20.9
191.fma3d	4	543	17.9	4	476	20.5
200.sixtrack	4	272	18.8	4	244	20.9
301.apsi	4	418	28.9	4	419	28.8

Hardware

CPU:	UltraSPARC III Cu
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/chip
CPU(s) orderable:	2,4
Parallel:	No
Primary Cache:	32KBI+64KBD on chip
Secondary Cache:	8MB(I+D) off chip
L3 Cache:	None
Other Cache:	None
Memory:	16GB 8-way interleaved
Disk Subsystem:	1 x 18GB SEAGATE ST318304FSUN18G
Other Hardware:	None

Software

Operating System:	Solaris 9 12/03
Compiler:	Sun ONE Studio 8 Sun Performance Library 8
File System:	ufs with ufs logging
System State:	Multi-User

Notes/Tuning Information

```
Compiler invocation:
  C: cc
  CXX: 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)
```

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Notes/Tuning Information (Continued)

```
 172.mgrid:   basepeak=yes
 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 -xlic_lib=sunperf
              RM_SOURCES=lapak.f90
 179.art:     -fast -xipo=2 -xalias_level=std
              -Wc,-Qms_pipe-prefst,-Qms_pipe+prefolim=11
 183.equake:  -fast -xipo=2 -xalias_level=strong -xprefetch_level=2
 187.facerec: -fast -xipo=2
 188.ammp:    -fast -xipo=2 -xalias_level=std -xpagesize=512K -lmopt -lm
 189.lucas:   -fast -xprefetch_level=3 -Qoption iropt -Apf:pdl=1
              -Qoption f90comp -array_pad_rows,1977
 191.fma3d:   -fast -xipo=2 -stackvar -xprefetch_level=3
              -Qoption iropt -Apf:pdl=1
 200.sixtrack:-O -dalign -xchip=ultra3 -xarch=v8plusb -fsimple=2
 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:  -e -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):
 set autoup=900
 set tune_t_fsflushr=1
```