# CFP2000 Result

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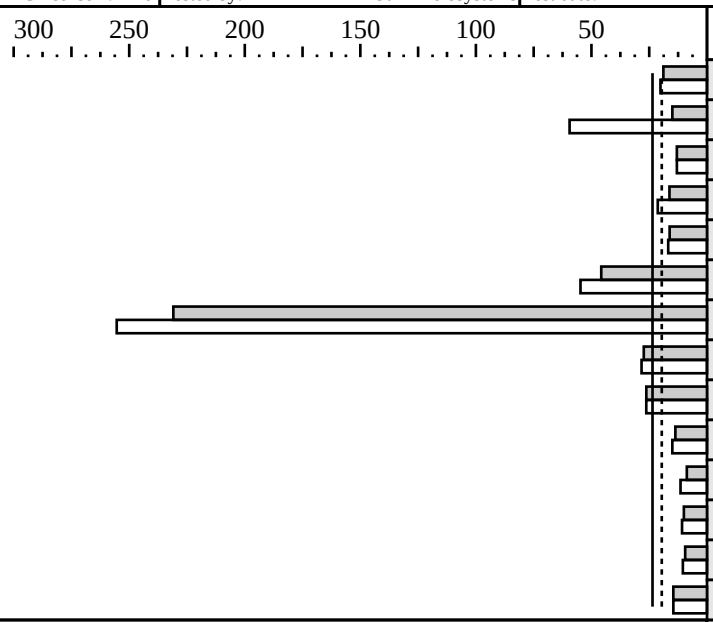
## Sun Microsystems
## Netra 20 (1200 MHz)

SPECfp_rate2000 = 23.6

SPECfp_rate_base2000 = 19.6

SPEC license #: 6 | Tested by: Sun Microsystems | Test date: Mar-2003 | Hardware Avail: Apr-2003 | Software Avail: May-2003




| Benchmark | Base Copies | Base Runtime | Base Ratio | Copies | Runtime | Ratio |
|---|---|---|---|---|---|---|
| 168.wupwise | 2 | 197 | 18.9 | 2 | 184 | 20.1 |
| 171.swim | 2 | 480 | 15.0 | 2 | 121 | 59.5 |
| 172.mgrid | 2 | 320 | 13.0 | 2 | 320 | 13.0 |
| 173.applu | 2 | 300 | 16.2 | 2 | 229 | 21.3 |
| 177.mesa | 2 | 201 | 16.2 | 2 | 194 | 16.8 |
| 178.galgel | 2 | 147 | 45.8 | 2 | 123 | 54.7 |
| 179.art | 2 | 26.1 | 231 | 2 | 23.6 | 255 |
| 183.equake | 2 | 110 | 27.4 | 2 | 107 | 28.3 |
| 187.facerec | 2 | 168 | 26.3 | 2 | 168 | 26.3 |
| 188.ammp | 2 | 373 | 13.7 | 2 | 340 | 15.0 |
| 189.lucas | 2 | 532 | 8.73 | 2 | 405 | 11.5 |
| 191.fma3d | 2 | 487 | 10.0 | 2 | 451 | 10.8 |
| 200.sixtrack | 2 | 270 | 9.44 | 2 | 244 | 10.4 |
| 301.apsi | 2 | 414 | 14.6 | 2 | 414 | 14.6 |

### Hardware

| | |
|---|---|
| CPU: | UltraSPARC III Cu |
| CPU MHz: | 1200 |
| FPU: | Integrated |
| CPU(s) enabled: | 2 cores, 2 chips, 1 core/chip |
| CPU(s) orderable: | 1-2 |
| Parallel: | No |
| Primary Cache: | 32KBI+64KBD on chip |
| Secondary Cache: | 8MB(I+D) off chip |
| L3 Cache: | None |
| Other Cache: | None |
| Memory: | 4GB 4-way interleaved |
| Disk Subsystem: | 2 x 18GB SEAGATE ST318304FC |
| Other Hardware: | None |

### Software

| | |
|---|---|
| Operating System: | Solaris 9 4/03 |
| Compiler: | Sun ONE Studio 8 (pre-FCS build 3/9)<br>Sun Performance Library 8 (pre-FCS build 3/9) |
| 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:   -fast -xipo=2
 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 -xipo=2 -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):
  default
  autoup=900
  tune_t_fsflushr=1
```