CFP2000 Result

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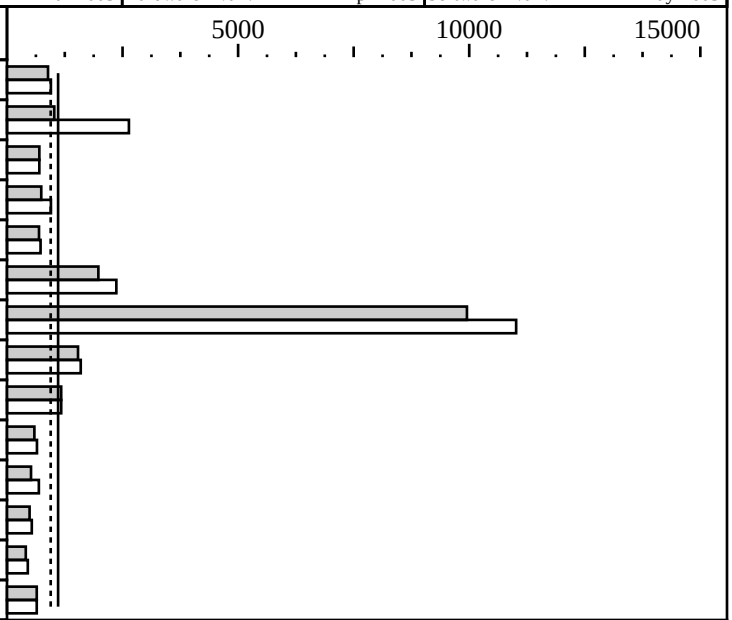
Sun Microsystems
Sun Fire 280R (1200 MHz)

SPECfp2000 = 1106

SPECfp_base2000 = 945

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	180	888	169	949
171.swim	3100	303	1023	118	2638
172.mgrid	1800	257	700	257	699
173.applu	2100	283	741	221	950
177.mesa	1400	202	693	193	726
178.galgel	2900	147	1977	123	2366
179.art	2600	26.1	9951	23.6	11015
183.equake	1300	84.6	1537	81.5	1595
187.facerec	1900	162	1172	162	1173
188.ammp	2200	371	592	339	648
189.lucas	2000	385	520	290	689
191.fma3d	2100	430	489	392	536
200.sixtrack	1100	271	406	244	450
301.apsi	2600	404	644	404	643



Hardware

CPU:	UltraSPARC III Cu
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 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) 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
System Settings:
  2nd CPU physically removed from the system
```