CFP2000 Result

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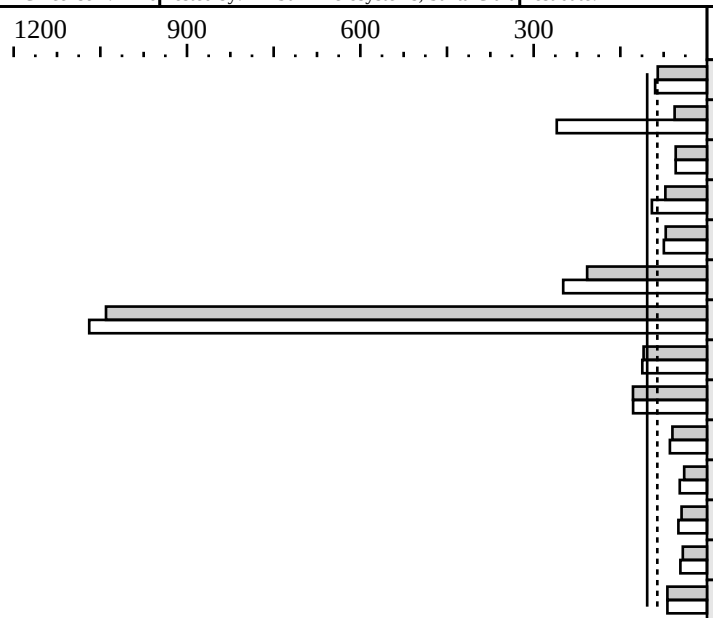
Sun Microsystems
Sun Fire V1280 (900MHz)

SPECfp_rate2000 = 104

SPECfp_rate_base2000 = 86.0

SPEC license #: 6 | Tested by: Sun Microsystems, Santa Clara | Test date: Feb-2003 | Hardware Avail: Feb-2003 | Software Avail: May-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	12	261	85.2	12	248	89.8
171.swim	12	770	56.1	12	166	260
172.mgrid	12	463	54.2	12	463	54.2
173.applu	12	406	72.0	12	306	95.4
177.mesa	12	273	71.4	12	261	74.7
178.galgel	12	195	207	12	162	249
179.art	12	34.8	1040	12	33.8	1069
183.equake	12	165	110	12	162	112
187.facerec	12	206	128	12	207	128
188.ammp	12	512	59.8	12	477	64.2
189.lucas	12	705	39.5	12	590	47.2
191.fma3d	12	664	44.0	12	591	49.5
200.sixtrack	12	366	41.9	12	333	46.0
301.apsi	12	528	68.5	12	528	68.5

Hardware

CPU:	UltraSPARC III Cu
CPU MHz:	900
FPU:	Integrated
CPU(s) enabled:	12 cores, 12 chips, 1 core/chip
CPU(s) orderable:	4,8,12
Parallel:	No
Primary Cache:	32KBI+64KBD on chip
Secondary Cache:	8MB(I+D) off chip
L3 Cache:	None
Other Cache:	None
Memory:	24GB 16-way interleaved
Disk Subsystem:	2 x 36GB 10K RPM LVD Disk, Sun P/N XTA-3310-36GB-10K
Other Hardware:	None

Software

Operating System:	Solaris 9 9/02
Compiler:	Sun ONE Studio 8 (pre-FCS build 1/28) Sun Performance Library 8 (pre-FCS build 1/28)
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
  LD_LIBRARY_PATH=/usr/lib:/export/home/compilers/EA2-FCS
  /20030128_k2/lib/v8plusb:/export/home/compilers/EA2-FCS
  /20030128_k2/prod/lib/v8plusb
Kernel Parameters (/etc/system):
 autoup=900
 tune_t_fsflushr=1
```