CFP2000 Result

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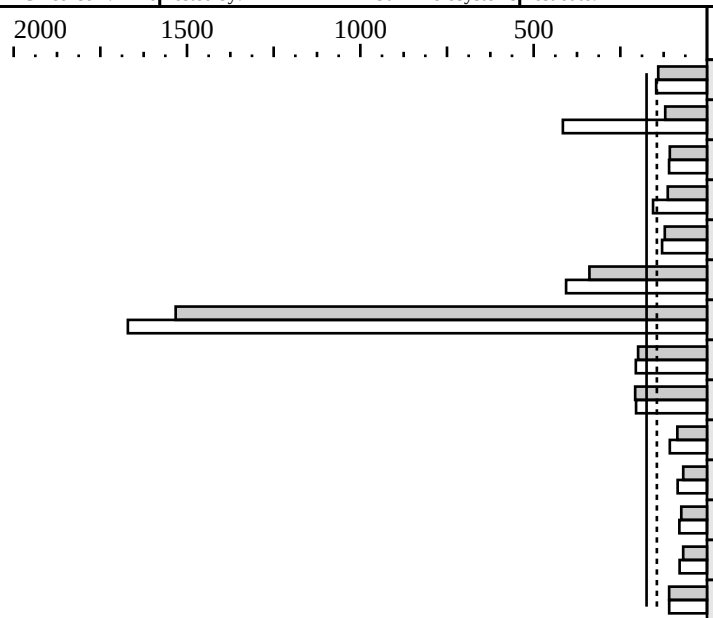
Sun Microsystems
Sun Fire 12K

SPECfp_rate2000 = 174

SPECfp_rate_base2000 = 145

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	16	211	141	16	203	147
171.swim	16	478	120	16	138	416
172.mgrid	16	311	107	16	305	109
173.applu	16	344	113	16	250	156
177.mesa	16	213	122	16	201	130
178.galgel	16	159	339	16	132	406
179.art	16	31.5	1533	16	28.9	1671
183.equake	16	121	199	16	118	205
187.facerec	16	170	207	16	172	205
188.ammp	16	477	85.5	16	381	107
189.lucas	16	541	68.6	16	438	84.7
191.fma3d	16	525	74.2	16	489	79.7
200.sixtrack	16	297	68.7	16	258	79.0
301.apsi	16	442	109	16	442	109

Hardware

CPU:	UltraSPARC III Cu
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	16 cores, 16 chips, 1 core/chip
CPU(s) orderable:	4-52
Parallel:	No
Primary Cache:	32KBI+64KBD on chip
Secondary Cache:	8MB(I+D) off chip
L3 Cache:	None
Other Cache:	None
Memory:	128GB 16-way interleaved
Disk Subsystem:	1 x 36GB (System Disk) Sun StorEdge T3, 9 x 18GB striped
Other Hardware:	None

Software

Operating System:	Solaris 9 12/02
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
```

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Notes/Tuning Information (Continued)

```
                (no feedback)
 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=4M
  MPSSSTACK=4M
  LD_PRELOAD=mpss.so.1

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

Processes were bound to CPUs using submit=pbind
```