CFP2000 Result

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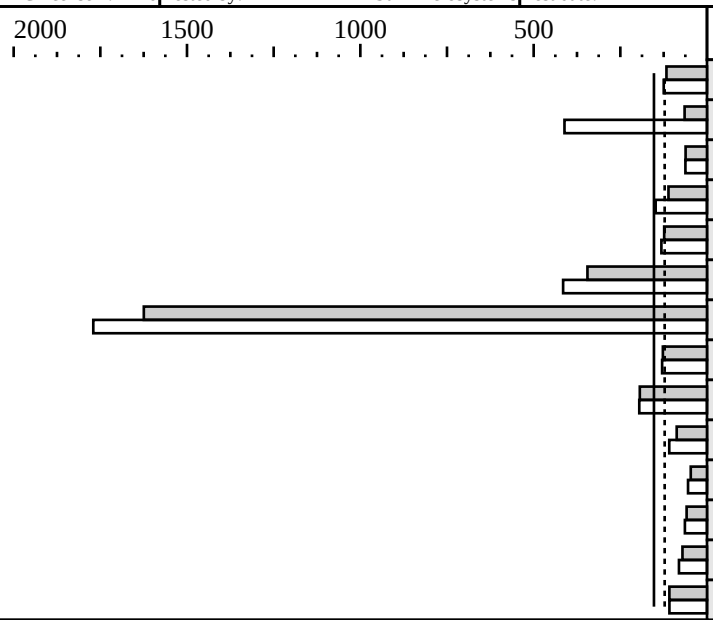
Sun Microsystems
Sun Fire 6800

SPECfp_rate2000 = 153

SPECfp_rate_base2000 = 122

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	16	254	117	16	238	125
171.swim	16	890	64.6	16	140	411
172.mgrid	16	541	61.7	16	537	62.2
173.applu	16	351	111	16	263	148
177.mesa	16	210	124	16	197	132
178.galgel	16	156	345	16	130	415
179.art	16	29.7	1625	16	27.3	1770
183.equake	16	190	127	16	186	129
187.facerec	16	182	194	16	181	195
188.ammp	16	467	87.4	16	375	109
189.lucas	16	792	46.9	16	679	54.7
191.fma3d	16	663	58.8	16	611	63.8
200.sixtrack	16	288	70.8	16	252	80.9
301.apsi	16	445	109	16	445	108

Hardware

CPU:	UltraSPARC III Cu
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	16 cores, 16 chips, 1 core/chip
CPU(s) orderable:	4-24
Parallel:	No
Primary Cache:	32KBI+64KBD on chip
Secondary Cache:	8MB(I+D) off chip
L3 Cache:	None
Other Cache:	None
Memory:	32GB 16-way interleaved
Disk Subsystem:	2 x 36GB 4 x (Sun StorEdge T3, 9x18GB raid5) 4-way 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
```

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Notes/Tuning Information (Continued)

```
                -Qoption iropt -Atile:skewp,-Ainline:cs=700
                (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

The benchmark was run on the Sun StorEdge T3 disk resident
file system.
```