CFP2000 Result

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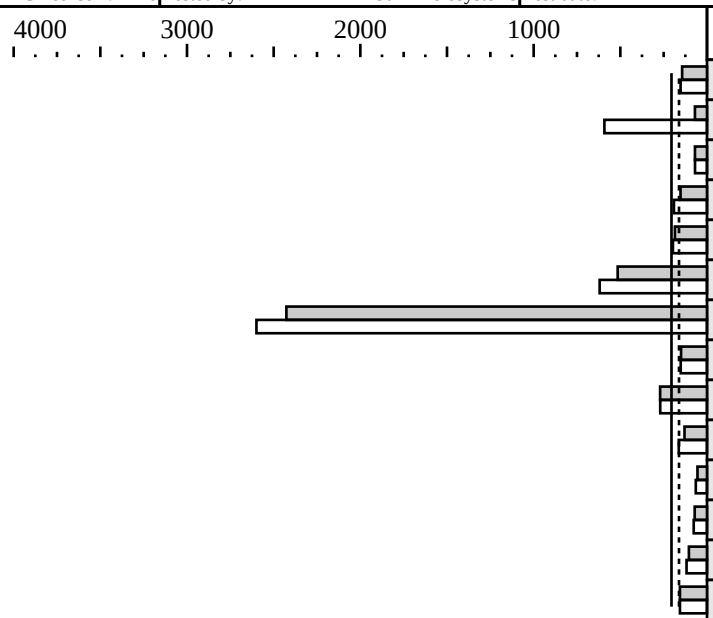
Sun Microsystems
Sun Fire 6800

SPECfp_rate2000 = 205

SPECfp_rate_base2000 = 161

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	24	310	144	24	292	152
171.swim	24	1240	69.6	24	146	592
172.mgrid	24	721	69.5	24	724	69.2
173.applu	24	383	153	24	306	191
177.mesa	24	211	185	24	198	197
178.galgel	24	157	515	24	130	619
179.art	24	29.8	2427	24	27.8	2599
183.equake	24	242	150	24	239	152
187.facerec	24	196	270	24	196	270
188.ammp	24	472	130	24	376	163
189.lucas	24	1013	54.9	24	862	64.6
191.fma3d	24	824	71.0	24	763	76.6
200.sixtrack	24	293	104	24	259	118
301.apsi	24	464	156	24	464	156

Hardware

CPU:	UltraSPARC III Cu
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	24 cores, 24 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:	48GB 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.
```