CFP2000 Result

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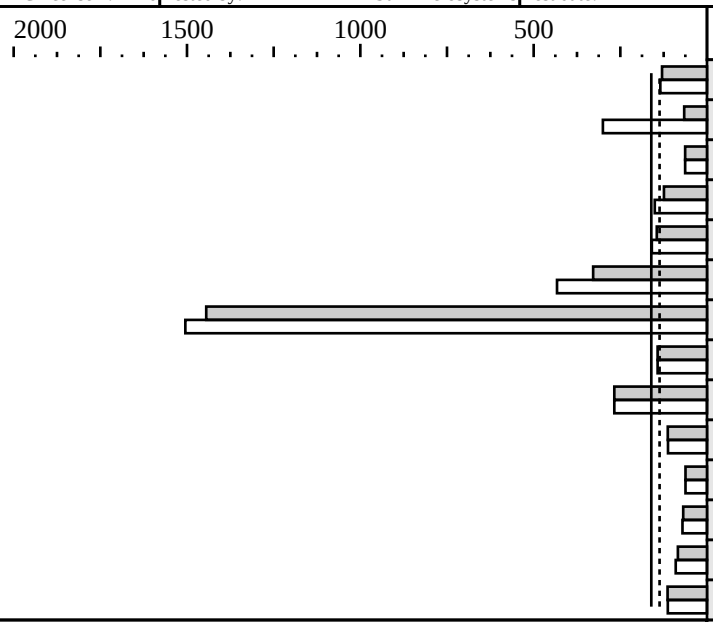
Sun Microsystems
Sun Fire V890(8 processor)

SPECfp_rate2000 = 161

SPECfp_rate_base2000 = 137

SPEC license #: 6 | Tested by: Sun Microsystems | Test date: Dec-2004 | Hardware Avail: Feb-2005 | Software Avail: Jan-2005



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	16	229	130	16	221	135
171.swim	16	875	65.8	16	192	300
172.mgrid	16	530	63.0	16	530	63.0
173.applu	16	314	124	16	259	151
177.mesa	16	179	145	16	163	159
178.galgel	16	164	328	16	124	433
179.art	16	33.4	1445	16	32.1	1505
183.equake	16	169	142	16	169	142
187.facerec	16	132	267	16	132	267
188.ammp	16	361	113	16	363	112
189.lucas	16	598	62.0	16	598	62.0
191.fma3d	16	568	68.6	16	551	70.7
200.sixtrack	16	243	84.0	16	226	90.2
301.apsi	16	424	114	16	427	113

Hardware

CPU:	UltraSPARC IV
CPU MHz:	1350
FPU:	Integrated
CPU(s) enabled:	16 cores, 8 chips, 2 cores/chip
CPU(s) orderable:	2,4,8 (order by # of chips)
Parallel:	No
Primary Cache:	32KBI+64KBD per core on chip (64KBI+128KBD on chip)
Secondary Cache:	8MB(I+D) per core off chip (16MB(I+D) off chip)
L3 Cache:	None
Other Cache:	None
Memory:	32GB 8-way interleaved
Disk Subsystem:	1 x 73GB
Other Hardware:	None

Software

Operating System:	Solaris 10
Compiler:	Sun Studio 9
File System:	ufs
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:   basepeak = yes
 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:  basepeak= yes
 187.facerec: basepeak= yes
 188.ammp:    -fast -xipo=2 -xalias_level=std -xpagesize=512K -lmopt -lm
 189.lucas:   basepeak =yes
 191.fma3d:   -fast -xipo=2 -stackvar -xprefetch_level=3
              -Qoption iropt -Apf:pdl=1
 200.sixtrack:-xO4 -dalign -xchip=ultra3 -xarch=v8plusb -fsimple=2
              -xprefetch=no
 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):
 autoup=900
 tune_t_fsflushr=1
```