CFP2000 Result

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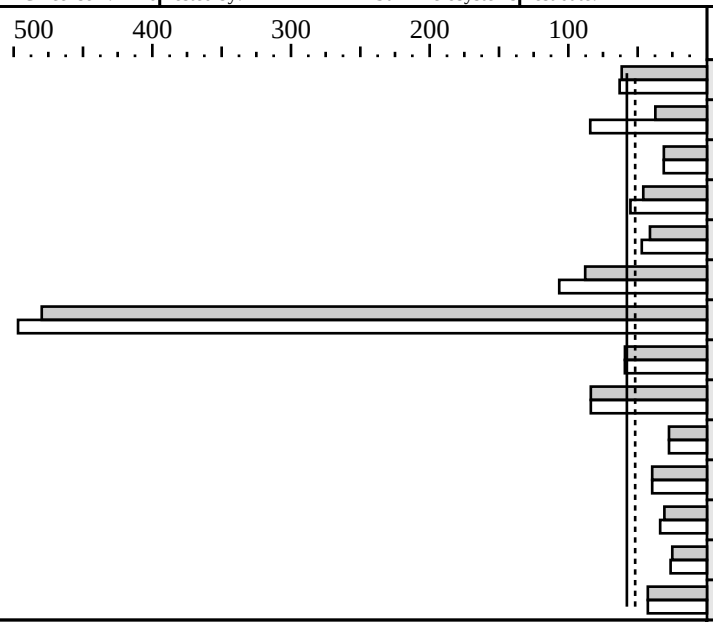
Sun Microsystems
Sun Fire V440 (1600MHz)

SPECfp_rate2000 = 57.8

SPECfp_rate_base2000 = 51.8

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	121	61.5	4	118	63.0
171.swim	4	386	37.3	4	171	84.2
172.mgrid	4	268	31.1	4	268	31.2
173.applu	4	212	46.0	4	176	55.2
177.mesa	4	158	41.1	4	138	47.0
178.galgel	4	153	87.8	4	126	107
179.art	4	25.1	480	4	24.3	497
183.equake	4	102	59.2	4	102	59.2
187.facerec	4	105	83.8	4	105	83.8
188.ammp	4	372	27.4	4	373	27.4
189.lucas	4	235	39.5	4	235	39.5
191.fma3d	4	317	30.7	4	289	33.8
200.sixtrack	4	204	25.0	4	194	26.2
301.apsi	4	283	42.7	4	283	42.7

Hardware

CPU:	UltraSPARC IIIi
CPU MHz:	1600
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/chip
CPU(s) orderable:	2,4
Parallel:	No
Primary Cache:	32KBI+64KBD on chip
Secondary Cache:	1MB(I+D) on chip
L3 Cache:	None
Other Cache:	None
Memory:	16GB
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:384 -xprefetch=latx:1.6
              -Qoption iropt -Atile:skewp:b6,-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 -xprefetch=latx:1.5
 183.equake:  -fast -xipo=2 -xalias_level=strong -xprefetch_level=2
 187.facerec: -fast -xipo=2 -xprefetch=latx:1.5
 188.ammp:    -fast -xipo=2 -xalias_level=std -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
```