CFP2000 Result

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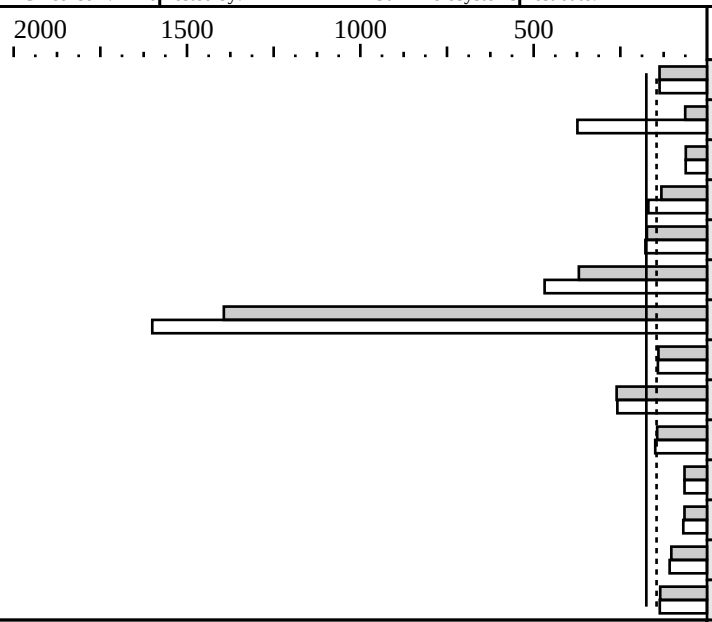
Sun Microsystems
Sun Fire E2900 (12 processor)

SPECfp_rate2000 = 175

SPECfp_rate_base2000 = 145

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	24	325	137	24	326	137
171.swim	24	1373	62.9	24	231	374
172.mgrid	24	819	61.2	24	816	61.4
173.applu	24	444	132	24	346	169
177.mesa	24	225	173	24	219	178
178.galgel	24	218	370	24	172	468
179.art	24	51.9	1394	24	45.2	1600
183.equake	24	258	140	24	256	142
187.facerec	24	203	261	24	205	259
188.ammp	24	426	144	24	410	149
189.lucas	24	858	64.9	24	858	64.9
191.fma3d	24	900	64.9	24	855	68.4
200.sixtrack	24	298	103	24	284	108
301.apsi	24	536	135	24	532	136

Hardware

CPU:	UltraSPARC s400
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	24 cores, 12 chips, 2 cores/chip
CPU(s) orderable:	4,8,12 (order by # 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:	48GB 16-way interleaved
Disk Subsystem:	1 x 73GB
Other Hardware:	None

Software

Operating System:	Solaris 9 04/04
Compiler:	Sun ONE Studio 8 Sun Performance Library 8
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
              (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
              -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:   basepeak=yes
 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=512K
  MPSSSTACK=512K
  LD_PRELOAD=mpss.so.1

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