CFP2000 Result

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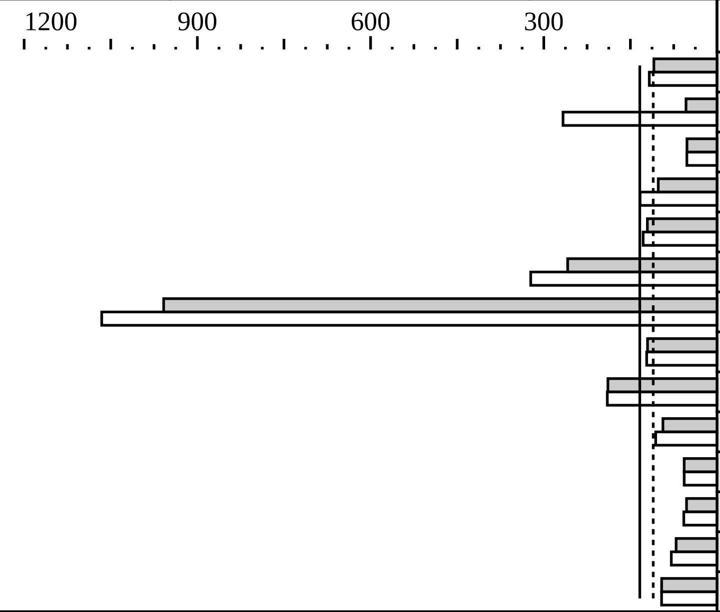
Sun Microsystems
Sun Fire E4900 (8 processor)

SPECfp_rate2000 = 134

SPECfp_rate_base2000 = 110

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	16	272	109	16	253	117
171.swim	16	1072	53.7	16	216	267
172.mgrid	16	642	52.0	16	640	52.2
173.applu	16	383	102	16	292	133
177.mesa	16	215	121	16	203	128
178.galgel	16	208	259	16	167	323
179.art	16	50.4	958	16	45.3	1066
183.equake	16	201	120	16	198	122
187.facerec	16	187	189	16	186	190
188.ammp	16	436	93.7	16	385	106
189.lucas	16	653	56.8	16	653	56.8
191.fma3d	16	739	52.7	16	678	57.5
200.sixtrack	16	288	70.8	16	258	79.1
301.apsi	16	503	95.9	16	503	96.0

Hardware

CPU:	UltraSPARC s400
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	16 cores, 8 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:	32GB 16-way interleaved
Disk Subsystem:	Sun StorEdge S1 Disk Array (2x36GB) Sun StorEdge T3 Array for the Workgroup (9x36GB)
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: f77

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
```

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Notes/Tuning Information (Continued)

```
  171.swim:    -fast -xpad=common:3969 -xpagesize=64K -xprefetch=latx:1.6
               -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:   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=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 system was configured with multiple file systems.
The O/S was installed on one disk of the Sun StorEdge S1
Disk Array (ufs, ufs w/logging).  The benchmark was run on
the Sun StorEdge T3 Array, using H/W Raid 5 and ufs with
ufs logging file system.
```