CFP2000 Result

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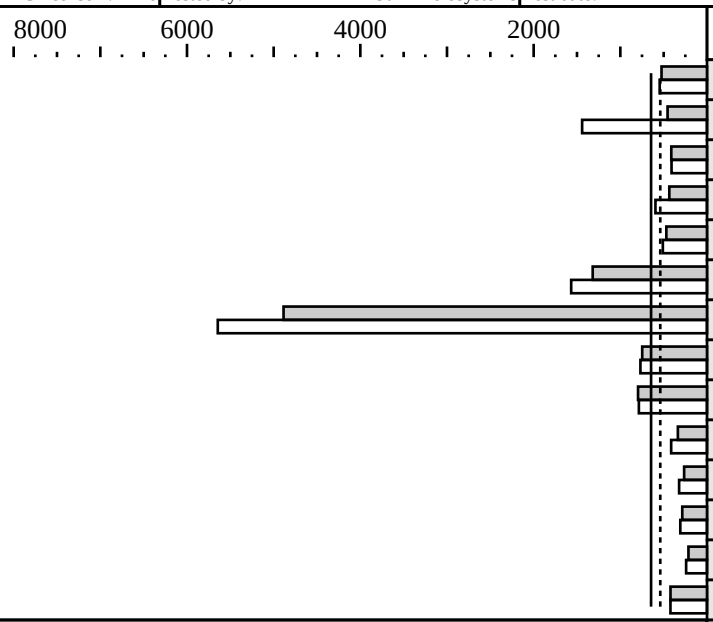
Sun Microsystems
Sun Fire 15K

SPECfp_rate2000 = 645

SPECfp_rate_base2000 = 539

SPEC license #: 6 | Tested by: Sun Microsystems | Test date: Mar-2003 | Hardware Avail: Mar-2003 | Software Avail: May-2003



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	64	226	525	64	218	546
171.swim	64	506	455	64	160	1441
172.mgrid	64	324	412	64	327	409
173.applu	64	358	435	64	262	595
177.mesa	64	222	469	64	204	510
178.galgel	64	163	1319	64	137	1567
179.art	64	39.5	4886	64	34.2	5645
183.equake	64	129	748	64	126	768
187.facerec	64	177	796	64	179	786
188.ammp	64	486	336	64	395	413
189.lucas	64	563	264	64	461	322
191.fma3d	64	546	285	64	506	308
200.sixtrack	64	382	214	64	339	241
301.apsi	64	458	421	64	458	422

Hardware

CPU:	UltraSPARC III Cu
CPU MHz:	1200
FPU:	Integrated
CPU(s) enabled:	64 cores, 64 chips, 1 core/chip
CPU(s) orderable:	4-106
Parallel:	No
Primary Cache:	32KBI+64KBD on chip
Secondary Cache:	8MB(I+D) off chip
L3 Cache:	None
Other Cache:	None
Memory:	512GB 16-way interleaved
Disk Subsystem:	1 x 36GB (System Disk) Sun StorEdge T3, 9 x 18GB 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
              -Qoption iropt -Atile:skewp,-Ainline:cs=700
```

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Notes/Tuning Information (Continued)

```
                (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
```