



CFP2000 Result

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Sun Microsystems
Sun Fire 12K

SPECfp_rate2000 = 379

SPECfp_rate_base2000 = 315

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	36	216	309	36	207	322
171.swim	36	486	266	36	145	894
172.mgrid	36	315	239	36	316	238
173.applu	36	351	250	36	255	344
177.mesa	36	220	266	36	206	284
178.galgel	36	163	745	36	135	896
179.art	36	34.1	3189	36	31.0	3506
183.quake	36	124	437	36	121	451
187.facerec	36	176	450	36	175	453
188.amp	36	487	189	36	389	236
189.lucas	36	553	151	36	448	187
191.fma3d	36	539	163	36	498	176
200.sixtrack	36	326	141	36	288	160
301.apsi	36	453	239	36	454	239

Hardware

CPU: UltraSPARC III Cu
 CPU MHz: 1200
 FPU: Integrated
 CPU(s) enabled: 36 cores, 36 chips, 1 core/chip
 CPU(s) orderable: 4-52
 Parallel: No
 Primary Cache: 32KBI+64KBD on chip
 Secondary Cache: 8MB(I+D) off chip
 L3 Cache: None
 Other Cache: None
 Memory: 288GB 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.ampp: -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