



CFP2000 Result

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Sun Microsystems
Sun Fire V1280 (900MHz)

SPECfp2000 = 844

SPECfp_base2000 = 733

SPEC license #: 6 Tested by: Sun Microsystems, Santa Clara Test date: Feb-2003 Hardware Avail: Feb-2003 Software Avail: May-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	233	687	222	721
171.swim	3100	357	867	159	1948
172.mgrid	1800	306	589	306	589
173.applu	2100	386	544	298	705
177.mesa	1400	269	521	254	551
178.galgel	2900	194	1498	161	1798
179.art	2600	34.5	7535	33.6	7740
183.quake	1300	110	1181	106	1222
187.facerec	1900	201	943	201	943
188.amp	2200	504	437	471	467
189.lucas	2000	471	424	358	558
191.fma3d	2100	569	369	508	414
200.sixtrack	1100	363	303	329	334
301.apsi	2600	519	501	519	501

Hardware

CPU: UltraSPARC III Cu
CPU MHz: 900
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 4,8,12
Parallel: No
Primary Cache: 32KBI+64KBD on chip
Secondary Cache: 8MB(I+D) off chip
L3 Cache: None
Other Cache: None
Memory: 2GB 4-way interleaved
Disk Subsystem: 2 x 36GB 10K RPM LVD Disk, Sun P/N XTA-3310-36GB-10K
Other Hardware: None

Software

Operating System: Solaris 9 9/02
Compiler: Sun ONE Studio 8 (pre-FCS build 1/28)
Sun Performance Library 8 (pre-FCS build 1/28)
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.quake: -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=512K
MPSSSTACK=512K
LD_PRELOAD=mpss.so.1
LD_LIBRARY_PATH=/usr/lib:/export/home/compilers/EA2-FCS
/20030128_k2/lib/v8plusb:/export/home/compilers/EA2-FCS
/20030128_k2/prod/lib/v8plusb

```

Kernel Parameters (/etc/system):

```

autoup=900
tune_t_fsflushr=1

```

System Settings:

other CPUs disabled at the firmware level using
"disablecomponent" on the System Controller processor
running System Management Services software