



CFP2000 Result

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Fujitsu Limited
PRIMEPOWER900 (2160MHz)

SPECfp2000 = 2236

SPECfp_base2000 = 2094

SPEC license #: 19 Tested by: Fujitsu Limited Test date: Dec-2005 Hardware Avail: Feb-2006 Software Avail: Nov-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	97.2	1645	93.6	1710
171.swim	3100	81.9	3786	69.3	4476
172.mgrid	1800	149	1204	142	1269
173.applu	2100	121	1738	110	1907
177.mesa	1400	118	1190	95.1	1473
178.galgel	2900	58.3	4975	49.5	5855
179.art	2600	9.83	26443	9.83	26442
183.earth	1300	58.4	2224	57.4	2266
187.facerec	1900	63.6	2990	62.5	3039
188.amp	2200	162	1361	139	1583
189.lucas	2000	161	1243	161	1245
191.fma3d	2100	195	1075	194	1081
200.sixtrack	1100	133	826	133	826
301.apsi	2600	170	1532	170	1532

Hardware

CPU: SPARC64 V
CPU MHz: 2160
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1 to 16 (increments of 1)
Parallel: None
Primary Cache: 128KBI + 128KBD on chip
Secondary Cache: 4MB(I+D) on chip
L3 Cache: None
Other Cache: None
Memory: 8GB (512MB x 16)
Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)
Other Hardware: None

Software

Operating System: Solaris 10
Compiler: Sun Studio 11
File System: ufs
System State: multi user

Notes/Tuning Information

```
FDO: (for Sun Studio 11)
fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
PASS1=-xprofile=collect:./feedback
PASS2=-xprofile=use:./feedback
```

```
Floating point base flags:
(using Fortran compiler of Sun Studio 11)
-fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes FDO
(using C compiler of Sun Studio 11)
-fast -xtarget=ultra3 -xipo=2 ONESTEP=yes FDO
```

```
Floating point peak flags:
(using Fortran compiler of Sun Studio 11)
168.wupwise: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xipo=1 -Qoption iropt -Ainline:inc=800:cp=1 ONESTEP=yes FDO
171.swim: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
```



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Notes/Tuning Information (Continued)

```

-xprefetch=latx:2.8 -Qoption iropt
-Ainline:cs=700,-Atile:skewp:b19 -xpad=common:1500
172.mgrid: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
           -stackvar -xipo=2 -xpad=common:800 -xprefetch=latx:1.6
           ONESTEP=yes FDO
173.applu: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
           -stackvar -xipo=2 -Qoption cg -Qlp=1-av=192-t=4-fa=1-fl=0
           -Qoption iropt -Aujam:inner=g ONESTEP=yes FDO
178.galgel: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
           -xipo=2 -Qoption iropt -Addint:sf=9 -xlic_lib=sunperf
           RM_SOURCES=lapak.f90 ONESTEP=yes FDO
187.facerec: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
            -xprefetch=latx:1.6 ONESTEP=yes FDO
189.lucas: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
           -stackvar -xipo=2 ONESTEP=yes FDO
191.fma3d: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
           -xipo=2 ONESTEP=yes FDO
200.sixtrack: basepeak=yes
301.apsi: basepeak=yes

```

(using C compiler of Sun Studio 11)

```

177.mesa: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
          -xchip=ultra2 -xalias_level=strong -xipo=2 -xrestrict
          ONESTEP=yes FDO
179.art: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
          -xipo=2 ONESTEP=yes FDO
183.quake: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
            -xalias_level=strong -W2,-whole -Wc,-Qms_pipe-pref,
            -Qlp=1-av=512-t=6-fa=1-fl=1 ONESTEP=yes FDO
188.ammp: -fast -xalias_level=std -xipo=2 ONESTEP=yes FDO

```

Portability:

178.galgel: -e -fixed

System Tunables:

```

(for /etc/system)
    set consistent_coloring=1
    set tune_t_fsflushr=86400
    set autoup=86400

```

Shell Environments:

```

Stack size set to unlimited via "ulimit -s unlimited"
MPSSHEAP=4M
MPSSSTACK=4M
LD_PRELOAD=mpss.so.1

```

System board used with only ONE CPU present.

Small configuration memory system mode used ("4cpu mode", enabled via system console).

Sun Studio 11, posted at URL <http://www.sun.com/software/products/studio/index.xml> was used for this submission.