



CFP2000 Result

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Fujitsu Limited
PRIMEPOWER650 (2025MHz)

SPECfp2000 = 1997

SPECfp_base2000 = 1688

SPEC license #: 19 Tested by: Fujitsu Limited Test date: Apr-2005 Hardware Avail: Jun-2005 Software Avail: Apr-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	109	1468	96.9	1650
171.swim	3100	244	1268	88.2	3514
172.mgrid	1800	179	1003	154	1170
173.applu	2100	135	1550	114	1850
177.mesa	1400	125	1123	102	1377
178.galgel	2900	76.9	3772	60.9	4764
179.art	2600	11.5	22656	11.5	22666
183.earth	1300	61.7	2108	59.6	2180
187.facerec	1900	70.0	2716	67.8	2803
188.amp	2200	179	1228	161	1363
189.lucas	2000	175	1141	167	1196
191.fma3d	2100	218	965	204	1029
200.sixtrack	1100	202	546	171	645
301.apsi	2600	200	1301	200	1301

Hardware

CPU: SPARC64 V
CPU MHz: 2025
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1 to 8 (increments of 1)
Parallel: None
Primary Cache: 128KBI + 128KBD on chip
Secondary Cache: 3MB(I+D) on chip
L3 Cache: None
Other Cache: None
Memory: 8192MB
Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)
Other Hardware: None

Software

Operating System: Solaris 9 4/04
Compiler: (Fortran) Fujitsu Parallelnavi 2.3 with patch 913221-03
Sun Studio 9
Sun Performance Library 9
(C)
Sun Studio 9
File System: ufs
System State: multi user

Notes/Tuning Information

```
FDO: (for Parallelnavi 2.3)
fdo_pre0=rm -rf `pwd`/*.f.d
PASS1=-Kpg
PASS2=-Kpu
FDO: (for Sun Studio 9)
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 9)
-fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes FDO
(using C compiler of Sun Studio 9)
-fast -xtarget=ultra3 -xipo=2 ONESTEP=yes FDO
```

Floating point peak flags:



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Notes/Tuning Information (Continued)

(using Fortran compiler of Parallelnavi 2.3)

```

168.wupwise: -Kfast_GP2=3,prefetch_infer,alignl=64,unroll=4,
             prefetch_cache_level=3 -O5 -x dir=./ FDO
172.mgrid:  -Kfast_GP2=2,GREG_SYSTEM -O4 -Kcommonpad=180,alignc=64
189.lucas:  -Kfast_GP2=3 -O5 -x dir=./ -Kunroll=2 FDO
191.fma3d:  -Am -Kfast_GP2=3,GREG_SYSTEM -O4 -x dir=./ -x70 -Kprefetch_infer FDO
200.sixtrack: -Kfast_GP2=3 -O4 -x dir=./ -Kunroll=3 -fs FDO

```

(using Fortran compiler of Sun Studio 9)

```

171.swim:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
             -xpad=common:1700 -Qoption iropt -Ainline:cs=700,Atile:skewp:b10
173.applu:  -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
             -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
301.apsi:   basepeak=yes

```

(using C compiler of Sun Studio 9)

```

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 front panel).

Sun Studio 9, posted at URL <http://www.sun.com/software/products/studio/previous/9/index.xml> was used for this submission.