



CFP2000 Result

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Fujitsu Limited
PRIMEPOWER450 (1870MHz)

SPECfp2000 = 1973

SPECfp_base2000 = 1728

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	109	1472	99.2	1612
171.swim	3100	209	1484	88.3	3510
172.mgrid	1800	147	1220	146	1232
173.applu	2100	143	1472	118	1776
177.mesa	1400	133	1056	108	1300
178.galgel	2900	79.4	3651	63.9	4542
179.art	2600	12.3	21112	12.3	21126
183.earth	1300	53.8	2417	49.6	2621
187.facerec	1900	71.8	2645	69.9	2720
188.amp	2200	194	1134	179	1230
189.lucas	2000	167	1201	162	1235
191.fma3d	2100	213	986	200	1050
200.sixtrack	1100	176	626	176	626
301.apsi	2600	210	1236	210	1236

Hardware

CPU: SPARC64 V
CPU MHz: 1870
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1 to 4 (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: 16384MB
Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)
Other Hardware: None

Software

Operating System: Solaris 9 9/04
Compiler: (Fortran)
Fujitsu Parallelnavi 2.3 with patch 913221-03
Sun Studio 9
Sun Performance Library 9
(C/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,prefetch_infer FDO
191.fma3d: -Am -Kfast_GP2=3,GREG_SYSTEM -O4 -x dir=./ -x70
-Kprefetch_infer 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
ONESTEP=yes
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
200.sixtrack: basepeak=yes
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 -lmopt -lm ONESTEP=yes FDO
188.ammp: -fast -xalias_level=std -xipo=2 -lmopt -lm 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.

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