CFP2000 Result

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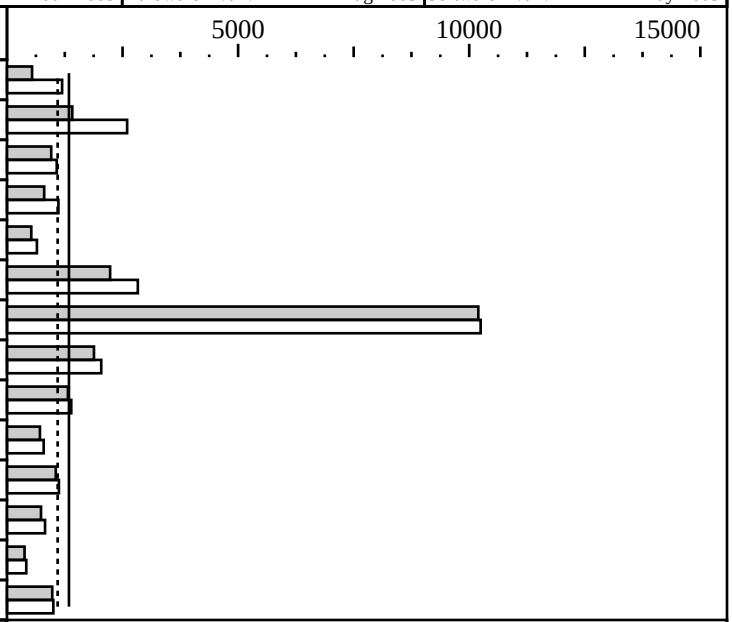
Fujitsu Limited
PRIMEPOWER650 (1350MHz)

SPECfp2000 = 1340

SPECfp_base2000 = 1096

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Jun-2003 | Hardware Avail: Aug-2003 | Software Avail: May-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	295	543	134	1192
171.swim	3100	220	1412	119	2599
172.mgrid	1800	188	957	167	1076
173.applu	2100	261	805	189	1112
177.mesa	1400	266	526	216	647
178.galgel	2900	130	2231	102	2830
179.art	2600	25.5	10197	25.4	10247
183.equake	1300	69.1	1882	63.8	2039
187.facerec	1900	144	1318	137	1390
188.ammp	2200	309	712	277	793
189.lucas	2000	189	1056	178	1123
191.fma3d	2100	285	736	255	823
200.sixtrack	1100	290	380	264	417
301.apsi	2600	266	979	259	1002



Hardware

CPU:	SPARC64 V
CPU MHz:	1350
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:	2MB(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:	Solaris8 2/02 with current patches (see notes)
Compiler:	Fujitsu Parallelnavi 2.1 with patch 912528-02 Sun ONE Studio 8 Sun Performance Library 8
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
FDO: (for Parallelnavi 2.1)
   fdo_pre0=rm -rf ‘pwd‘/*.f.d
   PASS1=-Kpg    PASS2=-Kpu

FDO: (for Sun ONE Studio 8 )
   fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
   PASS1=-xprofile=collect:./feedback
   PASS2=-xprofile=use:./feedback

Baseline:
(using Fortran compiler of  Sun ONE Studio 8 )
   -fast -xtarget=ultra3 -lprism32 FDO
(using C compiler of Sun ONE Studio 8 )
   -fast -xtarget=ultra3 -xipo=2 ONESTEP=yes FDO

Peak:
(using FORTRAN90 compiler of Parallelnavi 2.1)
```

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Notes/Tuning Information (Continued)

```
168.wupwise: -fs -Kfast_GP2=2,largepage -O5 -x dir=./
    -Kpreex,prefetch_infer,alignl=64,preschedule_length=17 -fs FDO
172.mgrid: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM
    -Kpreex,prefetch_line=6,commonpad=144,alignc=64 -fs FDO
189.lucas: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -O5
    -Kpreex,prefetch_infer,prefetch_line=6,preschedule_length=70 -fs FDO
191.fma3d: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -x dir=./ -x55
    -Kpreex,prefetch_infer,prefetch=4 -fs -Am FDO
200.sixtrack: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -O5
    -Kunroll=2,preex,prefetch_line=8,frecipro,novfunc,preschedule_length=27 -fs FDO

(using FORTRAN90 compiler of Sun ONE Studio 8 )
171.swim: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xpad=common:1660 -xprefetch=latx:2.6
    -Qoption iropt -Atile:skewp:b10,-Ainline:cs=700 -lprism32
173.applu: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra3 -xipo=2 -xprefetch=latx:0.6 FDO ONESTEP=yes
178.galgel: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xipo=2 -xprefetch=latx:0.4 -Qoption iropt -Addint:sf=9
    -lprism32 -xlic_lib=sunperf RM_SOURCES=lapak.f90 FDO ONESTEP=yes
187.facerec: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xarch=v8plusa -xprefetch_level=1 -xprefetch=latx:2.2
    -lprism32 FDO ONESTEP=yes
301.apsi: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra3 -xipo=2 -xprefetch=latx:2.0 -Qoption iropt -Mt450
    -lprism32 FDO ONESTEP=yes

(using C compiler of Sun ONE Studio 8 )
177.mesa: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra2 -xipo=2 -xrestrict -xalias_level=strong
    -Wc,-Qgsched-trace_late=1,-Qgsched-T4,-Qms_pipe+unoovf FDO ONESTEP=yes
179.art: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra3 -xipo=2 -xalias_level=std FDO ONESTEP=yes
183.equake: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xalias_level=strong -xdepend -W2,-whole,-Amemopt:arrayloc -xprefetch=latx:1.2
    -Wc,-Qms_pipe-pref,-Qlp=1-av=512-t=6-fa=1-fl=1
    -lprism32 -lmopt -lm FDO ONESTEP=yes
188.ammp: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
    -xchip=ultra3 -xipo=2 -xalias_level=std -xdepend -xprefetch=latx:2.6
    -xrestrict -lprism32 FDO ONESTEP=yes

Portability:
178.galgel: -e -fixed (for Sun ONE Studio 8 )

Note:
System Tunables: (for /etc/system)
 set consistent_coloring=1,
 set shmsys:shminfo_shmmax=4294967296,set shmsys:shminfo_shmmni=256,
 set shmsys:shminfo_shmseg=400,set shmsys:shminfo_shmmin=1
 set tune_t_fsflushr = 86400
 set autoup = 86400
System Tunables: (for /etc/opt/FJSVpnrm/lpg.conf)
 TSS=1024M, SHMSEGSIZE=256M
Shell Environments:
 LD_LIBRARY_PATH="/opt3/SUNWspro/prod/lib/v8plusb"
 PRISM_HEAP=268435456
```

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Notes/Tuning Information (Continued)

```
 PRISM_MODE=2

Feedback directed optimization was used except 171.swim(peak).
Small configuration memory system mode used ("4cpu mode", enabled via front panel).
Stack size set to unlimited via "ulimit -s unlimited"
System board used with only one CPU present.
Sun ONE Studio 8 , posted at URL http://wwws.sun.com/software/sundev/suncc/
was used for this submission.
All patches for Solaris8 posted at
  http://access1.sun.com/patch.public/cgi-bin/show_list.cgi/wrk/Sun_ONE_Studio_7_SPARC_SunOS_5.8
as of date 2003/04/21 were applied: 108434-12, 108435-12, 111697-04, 111721-03.
```