CFP2000 Result

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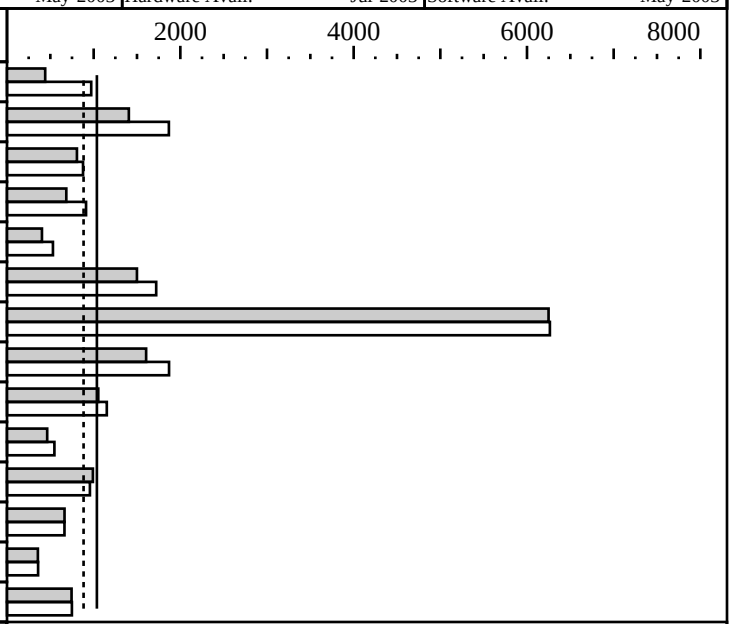
Fujitsu Limited
PRIMEPOWER450 (1100MHz)

SPECfp2000 = 1037

SPECfp_base2000 = 884

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	363	441	165	972
171.swim	3100	221	1406	166	1868
172.mgrid	1800	223	807	205	877
173.applu	2100	307	684	230	912
177.mesa	1400	347	403	264	530
178.galgel	2900	193	1499	168	1721
179.art	2600	41.6	6249	41.5	6264
183.equake	1300	81.0	1605	69.5	1870
187.facerec	1900	180	1053	165	1152
188.ammp	2200	474	464	402	547
189.lucas	2000	202	991	209	957
191.fma3d	2100	316	664	317	663
200.sixtrack	1100	309	356	307	359
301.apsi	2600	349	745	347	749



Hardware

CPU:	SPARC64 V
CPU MHz:	1100
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:	1MB(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 (EA2 version of Sun ONE Studio 8 used) 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 EA2)
   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 EA2)
   -fast -xtarget=ultra3 -lprism32 FDO
(using C compiler of Sun ONE Studio 8 EA2)
   -fast -xtarget=ultra3 -xipo=2 FDO ONESTEP=yes
Peak:
(for Parallelnavi 2.1)
168.wupwise: -fs -Kfast_GP2=2,largepage -O5 -x dir=./
    -Kpreex,prefetch_infer,alignl=64,preschedule_length=17 FDO
172.mgrid: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -Kpreex,prefetch_line=6,commonpad=144,alignc=64 FDO
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Notes/Tuning Information (Continued)

178.galgel: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -x dir=./
-Kpreex,prefetch_infer,prefetch=4,frecipro,unroll=2,commonpad=152,arraypad_const=11,alignl=64
-Am -Fixed -KFMADD -SSL2 FDO
189.lucas: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -O5
-Kpreex,prefetch_infer,prefetch_line=6,preschedule_length=70 FDO
191.fma3d: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -x dir=./ -x55
-Kpreex,prefetch_infer,prefetch=4 FDO
(using FORTRAN90 compiler of Sun ONE Studio 8 EA2)
171.swim: -fast -xchip=ultra3cu -xcache=128/64/2:1024/64/2 -xarch=v8plusb
-xpad=common:4002 -xprefetch=latx:2.2
-Qoption iropt -Atile:skewp,-Ainline:cs=700 -lprism32
173.applu: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2 -xarch=v8plusb
-xipo=2 -xprefetch=latx:0.6 FDO ONESTEP=yes

187.facerec: -xO5 -xchip=ultra3 -xcache=128/64/2:1024/64/2 -xarch=v8plus
-xprefetch=yes -xprefetch_level=1 -xprefrtch=latx:2.0 -xvector=no -xdepend -ftrap=%none
-fns -fsimple=2 -lprism32 FDO ONESTEP=yes
200.sixtrack:-fast -xchip=ultra3 -xcache=128/64/2:1024/64/2 -xarch=v8plusb
-xipo=2 -lprism32 ONESTEP=yes
301.apsi: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2 -xarch=v8plusb
-xipo=2 -xprefrtch=latx:2.0 -Qoption iropt -Mt450 -lprism32 FDO ONESTEP=yes

(using C compiler of Sun ONE Studio 8 EA2)
177.mesa: -fast -xchip=ultra2 -xcache=128/64/2:1024/64/2 -xarch=v8plusb -xipo=2 -xrestrict
-xalias_level=strong -Wc,-Qgsched-trace_late=1,-Qgsched-T4,-Qms_pipe+unoovf FDO ONESTEP=yes
179.art: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2 -xarch=v8plusb -xipo=2 -xalias_level=std FDO ONESTEP=yes
183.equake: -fast -xchip=ultra3cu -xcache=128/64/2:1024/64/2 -xarch=v8plusb
-xalias_level=strong -xdepend -W2,-whole,-Amemopt:arrayloc -xprefetch
-Wc,-Qms_pipe-pref,-Qlp=1-av=512-t=6-fa=1-fl=1 -lprism32 -lmopt -lm FDO ONESTEP=yes
188.ammp: -fast -xchip=ultra3 -xcache=128/64/2:1024/64/2 -xarch=v8plusb
-xipo=2 -xrestrict -xalias_level=std -xdepend -xprefetch=latx:2.6 -lprism32 FDO ONESTEP=yes

Portability:
Base:
178.galgel: -e -fixed (for Sun ONE Studio 8 EA2)
Peak:
178.galgel: -Am -Fixed (for Parallelnavi 2.1)
Note:
System Tunables: (for /etc/system)
consistent_coloring=1,
shmsys:shminfo_shmmax=2147483648, shmsys:shminfo_shmmni=256,
shmsys:shminfo_shmseg=400,shminfo_shmmin=1
set tune_t_fsflushr = 86400
set autoup = 86400
(for /etc/opt/FJSVpnrm/lpg.conf)
TSS=1024M, SHMSEGSIZE=256M
Shell Environments:
LD_LIBRARY_PATH="/opt3/SUNWspro/prod/lib/v8plusb"
PRISM_HEAP=268435456
PRISM_MODE=2
Feedback directed optimization was used except 171.swim(peak).
Small configuration memory system mode used ("4cpu mode", enabled via system console).
Stack size set to unlimited via "ulimit -s unlimited"
System board used with only one CPU present.
Sun ONE Studio 8 EA2 (Early Access 2), posted at URL http://access1.sun.com/s1sprod8
as updated through 27-Mar-2003, was used for this submission.

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Notes/Tuning Information (Continued)

Sun ONE Studio 8 (final) will ship May-2003.
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: 108434-11, 108435-11, 111697-04, 111721-03.