CFP2000 Result

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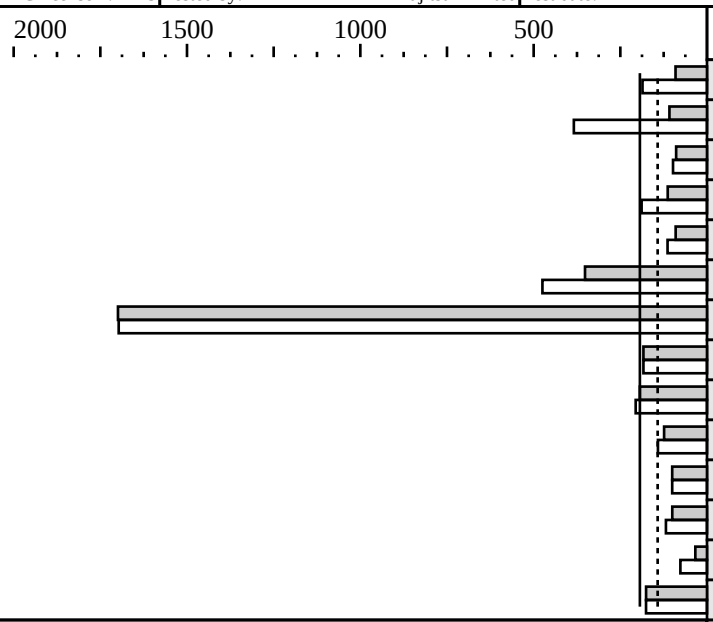
Fujitsu Limited
PRIMEPOWER900 (1350MHz)

SPECfp_rate2000 = 194

SPECfp_rate_base2000 = 142

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	16	327	90.8	16	160	186
171.swim	16	531	108	16	150	384
172.mgrid	16	375	89.0	16	341	98.0
173.applu	16	344	113	16	207	189
177.mesa	16	287	90.4	16	228	114
178.galgel	16	153	352	16	113	475
179.art	16	28.4	1699	16	28.4	1697
183.equake	16	132	183	16	132	183
187.facerec	16	182	194	16	171	206
188.ammp	16	330	124	16	289	141
189.lucas	16	370	100	16	370	100
191.fma3d	16	389	100	16	329	118
200.sixtrack	16	607	33.6	16	266	76.8
301.apsi	16	275	176	16	274	176

Hardware

CPU:	SPARC64 V
CPU MHz:	1350
FPU:	Integrated
CPU(s) enabled:	16 cores, 16 chips, 1 core/chip
CPU(s) orderable:	1 to 16 (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:	32768MB
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 ONESTEP=yes FDO
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
```

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Notes/Tuning Information (Continued)

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    -Kpreex,prefetch_line=6,commonpad=144,alignc=64 FDO
191.fma3d: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -x dir=./ -x55
    -Kpreex,prefetch_infer,prefetch=4 FDO
200.sixtrack: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -O5
    -Kunroll=2,preex,prefetch_line=8,frecipro,novfunc,preschedule_length=27 FDO
(using FORTRAN90 compiler of Sun ONE Studio 8 EA2)
171.swim: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4  -xarch=v8plusb
    -xpad=common:4002 -xprefetch=latx:2.2
    -Qoption iropt -Atile:skewp,-Ainline:cs=700 -lprism32
173.applu: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plusb
    -xipo=2 -xprefetch=latx:0.6 FDO ONESTEP=yes
178.galgel: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4 -xarch=v8plusb
    -xipo=2 -xprefetch=latx:0.4 -Qoption iropt -Addint:sf=9
    -lprism32 -xlic_lib=sunperf RM_SOURCES=lapak.f90 FDO ONESTEP=yes
187.facerec: -xO5 -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plus
    -xprefetch=yes -xprefetch_level=1 -xprefrtch=latx:2.0 -xvector=no
    -xdepend -ftrap=%none -fns -fsimple=2 -lprism32 FDO ONESTEP=yes
189.lucas: basepeak=yes
301.apsi: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4 -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=128/64/2:2048/64/4 -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=128/64/2:2048/64/4 -xarch=v8plusb
    -xipo=2 -xalias_level=std FDO ONESTEP=yes
183.equake: basepeak=yes
188.ammp: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plusb
    -xipo=2 -xrestrict -xalias_level=std -xdepend -xprefetch=latx:2.6
    -lprism32 FDO ONESTEP=yes

Portability:
178.galgel: -e -fixed (for Sun ONE Studio 8 EA2)

Note:
 System Tunables: (for /etc/system)
 consistent_coloring=1,
 shmsys:shminfo_shmmax=8589934592, 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=4096M, 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).
Stack size set to unlimited via "ulimit -s unlimited"
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.
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.
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Notes/Tuning Information (Continued)

PPAR(Physical PARtitioning) configuration