CFP2000 Result

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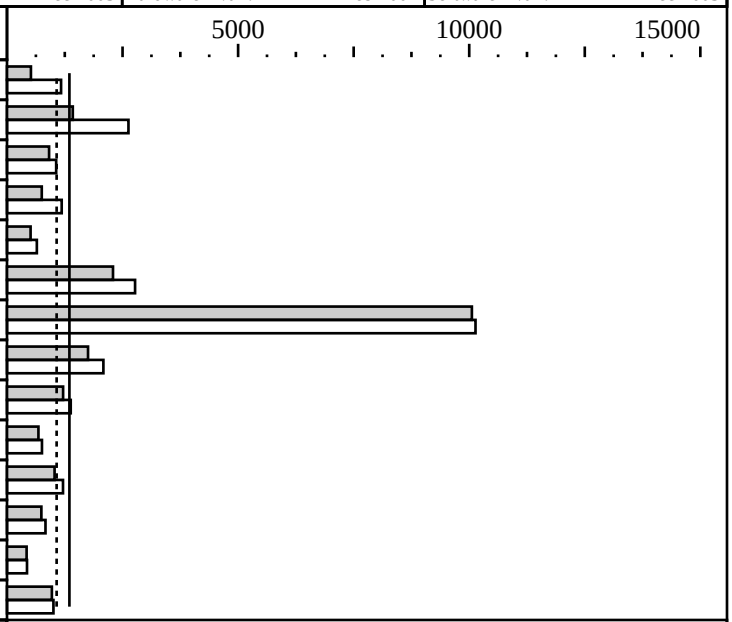
Fujitsu Limited
PRIMEPOWER450 (1320MHz)

SPECfp2000 = 1350

SPECfp_base2000 = 1074

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Dec-2003 | Hardware Avail: Feb-2004 | Software Avail: Dec-2003

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	309	518	137	1170
171.swim	3100	218	1423	118	2628
172.mgrid	1800	198	910	169	1064
173.applu	2100	279	752	177	1183
177.mesa	1400	274	510	217	646
178.galgel	2900	126	2293	105	2771
179.art	2600	25.9	10057	25.7	10136
183.equake	1300	74.1	1753	62.3	2085
187.facerec	1900	157	1214	138	1379
188.ammp	2200	323	680	291	756
189.lucas	2000	194	1029	165	1212
191.fma3d	2100	282	744	252	833
200.sixtrack	1100	259	424	254	433
301.apsi	2600	268	971	259	1005



Hardware

CPU:	SPARC64 V
CPU MHz:	1320
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:	2MB(I+D) on chip
L3 Cache:	None
Other Cache:	None
Memory:	8192MB (512MB x 16)
Disk Subsystem:	1 x 36.4GB SCSI (10000rpm)
Other Hardware:	None

Software

Operating System:	Solaris 8 2/02 with current patches (see notes)
Compiler:	Fujitsu Parallelnavi 2.1 Fujitsu Parallelnavi 2.3 Sun ONE Studio 8 Sun Performance Library 8
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
FDO: (for Parallelnavi 2.1 & 2.3)
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

Floating point base flags:
(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

Floating point peak flags:
```

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Notes/Tuning Information (Continued)

```
(using Fortran compiler of Parallelnavi 2.1)
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 -Am
              -x dir=./ -x55 -Kpreex,prefetch_infer,prefetch=4 FDO

(using Fortran compiler of Parallelnavi 2.3)
168.wupwise:  -fs -Kfast_GP2=2,largepage -O5
              -x dir=./ -Kpreex,prefetch_infer,preschedule_length=17 FDO
172.mgrid:    -fs -Kfast_GP2=2,largepage,GREG_SYSTEM
              -Kpreex,prefetch_line=6,commonpad=144,alignc=64 FDO

(using Fortran 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 cg -Qiselect-funcalign=64
              -Qoption iropt -Ainline:cs=700,Atile:skewp:b10 -lprism32
173.applu:    -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
              -xarch=v8plus -xipo=2 -xprefetch=latx:0.8
              -Qoption cg -Qiselect-funcalign=64
              -Qoption iropt -Aujam:inner=g ONESTEP=yes FDO
178.galgel:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
              -xarch=v8plusa -xchip=ultra2e -xipo=2 -xprefetch=latx:0.8
              -Qoption cg -Qiselect-funcalign=64
              -Qoption iropt -Addint:sf=9 -lprism32 -xlic_lib=sunperf
        RM_SOURCES=lapak.f90 ONESTEP=yes FDO
187.facerec:  -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
              -xarch=v8plus -xprefetch_level=1 -xprefetch=latx:1.6
              -Qoption cg -Qiselect-funcalign=64 -lprism32 ONESTEP=yes FDO
200.sixtrack: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
              -xipo=2 -lprism32 ONESTEP=yes FDO
301.apsi:     -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
              -xarch=v8plus -xchip=ultra2 -xipo=2 -xprefetch=latx:2.4
              -lprism32 ONESTEP=yes FDO

(using C compiler of Sun ONE Studio 8)
177.mesa:     -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
              -xchip=ultra2 -xalias_level=strong -xipo=2
              -xrestrict -Wc,-Qgsched-T4,-Qgsched-trace_late=1,
              -Qiselect-funcalign=64,-Qms_pipe+unoovf ONESTEP=yes FDO
179.art:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
              -xarch=v8plusa -xalias_level=std -xipo=2 -xprefetch=latx:2.4
              -Wc,-Qiselect-funcalign=64 ONESTEP=yes FDO
183.equake:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
              -xarch=v8plus -xalias_level=strong -xdepend -xprefetch=latx:1.2
              -W2,-Amemopt:arrayloc,-whole -Wc,-Qiselect-funcalign=64,
              -Qms_pipe-pref,-Qlp=1-av=512-t=6-fa=1-fl=1 -lprism32 -lmopt -lm
             ONESTEP=yes FDO
188.ammp:     -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:2048/64/4
              -xalias_level=std -xchip=ultra3 -xdepend -xipo=2
              -xprefetch=latx:2.6 -xrestrict -Wc,-Qiselect-funcalign=64
              -lprism32 ONESTEP=yes FDO

Portability:
178.galgel:   -e -fixed
```

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Notes/Tuning Information (Continued)

```
System Tunables:
(for /etc/system)
      set consistent_coloring=1
      set shmsys:shminfo_shmmax=2147483648, set shmsys:shmmni=256,
      set shmsys:shminfo_shmseg=400, set shmsys:shmmin=1
      set tune_t_fsflushr = 86400
      set autoup = 86400
(for /etc/opt/FJSVpnrm/lpg.conf)
      TSS=1024M, SHMSEGSIZE=256M
Shell Environments:
      Stack size set to unlimited via "ulimit -s unlimited"
      LD_LIBRARY_PATH="/opt4/SUNWspro/prod/lib/v8plusb"
      PRISM_HEAP=268435456
      PRISM_MODE=2

System board used with only on CPU present.
 Sun ONE Studio 8, posted at URL http://wwws.sun.com/software/sundev/suncc/
 was used for this submission.
 All patches for Solaris 8 posted at
 http://access1.sun.com/patch.public/cgi-bin/show_list.cgi/wrk/Sun_ONE_Studio_8_SPARC_SunOS_5.8
 as of date 2003/12/17 were applied: 108434-13, 108435-13, 111697-04, 111721-04.
```