CFP2000 Result

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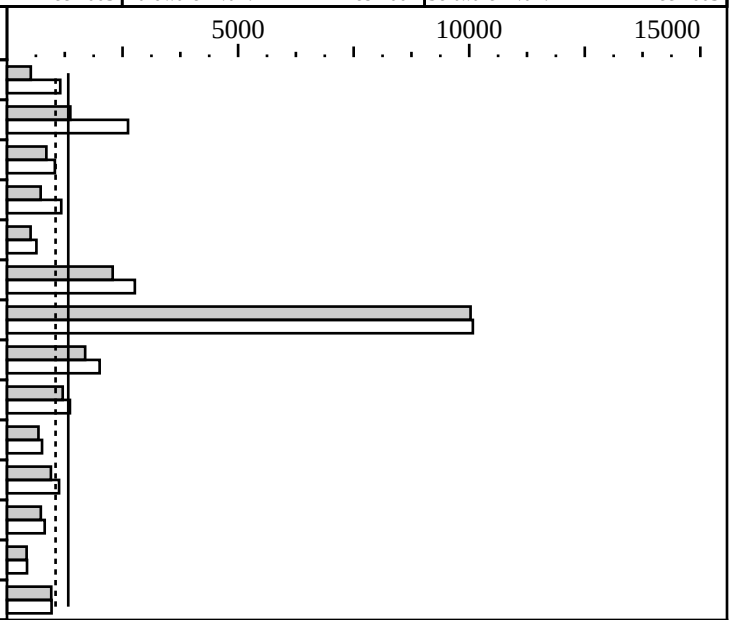
Fujitsu Limited
PRIMEPOWER250 (1320MHz)

SPECfp2000 = 1325

SPECfp_base2000 = 1051

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	311	515	139	1152
171.swim	3100	226	1370	118	2619
172.mgrid	1800	211	852	174	1035
173.applu	2100	288	728	179	1174
177.mesa	1400	274	511	220	637
178.galgel	2900	127	2286	105	2766
179.art	2600	25.9	10029	25.8	10079
183.equake	1300	76.9	1691	64.9	2004
187.facerec	1900	158	1205	140	1361
188.ammp	2200	323	681	290	758
189.lucas	2000	211	950	178	1127
191.fma3d	2100	287	732	257	816
200.sixtrack	1100	259	424	254	433
301.apsi	2600	272	957	270	964



Hardware

CPU:	SPARC64 V
CPU MHz:	1320
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1 to 2 (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:	4096MB (512MB x 8)
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
              -Kprefetch_line=6,commonpad=124 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="/opt/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.
```