CFP2000 Result

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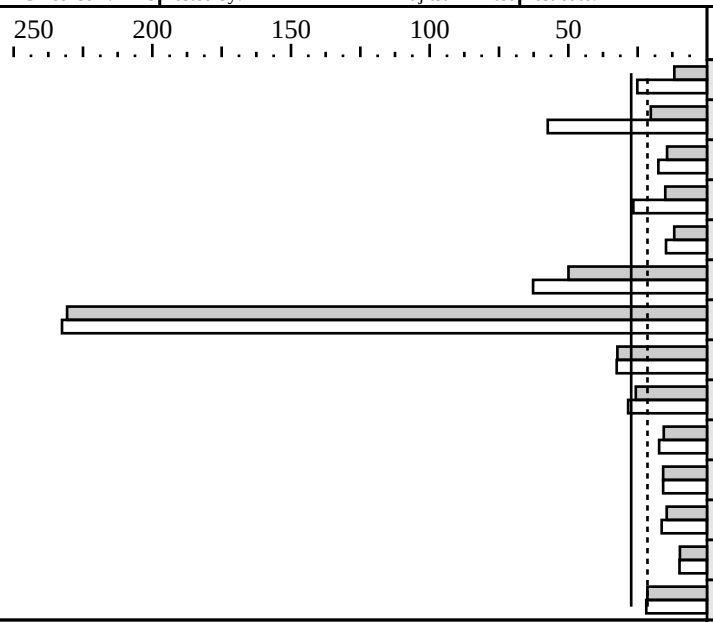
Fujitsu Limited
PRIMEPOWER250 (1320MHz)

SPECfp_rate2000 = 27.3

SPECfp_rate_base2000 = 21.5

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	315	11.8	2	148	25.1
171.swim	2	355	20.3	2	125	57.4
172.mgrid	2	290	14.4	2	238	17.5
173.applu	2	324	15.0	2	183	26.6
177.mesa	2	275	11.8	2	220	14.8
178.galgel	2	135	49.9	2	107	62.7
179.art	2	26.1	231	2	25.9	233
183.equake	2	93.4	32.3	2	92.6	32.6
187.facerec	2	172	25.7	2	155	28.4
188.ammp	2	327	15.6	2	296	17.3
189.lucas	2	293	15.8	2	293	15.8
191.fma3d	2	335	14.5	2	298	16.3
200.sixtrack	2	261	9.77	2	257	9.91
301.apsi	2	281	21.5	2	275	21.9

Hardware

CPU:	SPARC64 V
CPU MHz:	1320
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 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)
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
189.lucas: basepeak=yes
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
              -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

System Tunables:
```

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Notes/Tuning Information (Continued)

```
(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

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.
Processes were bound to CPUs using "submit=pbind"
```