Fujitsu Limited
PRIMEPOWER900 (1350MHz)

SPEC has determined that this result was not in compliance with the SPEC CPU2000 run and reporting rules. Specifically, the tester has reported that the 3 month availability requirement in the SPEC CPU2000 run rules will not be met due to a change in availability of the hardware.

**Benchmark**

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Reference Time</th>
<th>Base Runtime</th>
<th>Base Ratio</th>
<th>Runtime</th>
<th>Ratio</th>
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</tbody>
</table>

**Hardware**

- CPU: SPARC64 V
- CPU MHz: 1350
- FPU: Integrated
- CPU(s) enabled: 1 core, 1 chip, 1 core/chip
- CPU(s) orderable: 4 to 16
- Parallel: None
- Primary Cache: 128KBI+128KBD on chip
- Secondary Cache: 2MB(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 2.0.1 with patch 912245-01
- File System: ufs
- System State: multi user

**Notes/Tuning Information**

FDO: (for Parallelnavi 2.0.1)
- fdo_pre0=rm -rf `pwd`/*.d
- PASS1=-Kpg
- PASS2=-Kpu
- FDO: (for Sun ONE Studio 7)
- fdo_pre0=rm -rf `pwd`/feedback.profile `pwd`/SunWS_cache
- PASS1=-xprofile=collect:`pwd`/feedback
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Notes/Tuning Information (Continued)

PASS2=xprofile=use:\`pwd`/\../feedback
Baseline:
(using Fortran compiler of Parallelnavi 2.0.1)
-Kfast_GP2=2,prefetch_infer,largepage -O5
(using C compiler of Sun ONE Studio 7)
-fast -xchip=ultra3 -xipo=2 FDO
Peak:
(for Parallelnavi 2.0.1)
168.wupwise: -fs -Kfast_GP2=2,largepage -O5 -x dir=../src
-Kpreex,prefix,fetch_line=5,GREG_SYSTEM,align=64,preex FDO
171.swim: -fs -Kfast_GP2=2,largepage -O5
-Kpreex,commonpad=168,prefix_cache_level=3,prefix_line_L2=6,
prefix_line=6,frecipro,GREG_SYSTEM,prefix=4 FDO
172.mgrid: -fs -Kfast_GP2=2,largepage -KREG_SYSTEM,prefix_line=8,commonpad=144,align=64 FDO
178.galgel: -fs -Kfast_GP2=2,largepage -KREG_SYSTEM,prefix,unroll=2,prefix_line=6,
commonpad=88,arraypad_const=11,align=64 -x dir=../src
-KFMADD -SSL2 FDO
189.lucas: -fs -Kfast_GP2=2,largepage -O5 -Kpreex,auto,prefix=2,
prefix_infer,prefix_line=7,GREG_SYSTEM,preschedule_length=150 FDO
200.sixtrack: -fs -Kfast_GP2=2,largepage -O5
-Kunroll=2,pree,fetch_line=6,frecipro,preschedule_length=90,nowfunc FDO
(using FORTRAN77 compiler of Sun ONE Studio 7)
173.applc: -fast -xchip=ultra3 -xcache=128/64:2:2048/64/4 -xarch=v8plusb
-Opption iropt -Adata_access,-M7000,-Mm14000,-Mr40000,-Ma40000,-whole -xregx=syst
-Opption iropt -Rscalarrep,-MR -Opption cg -Ql=1-av=128-t=4-fa=1
-Opption F90comp -O3 -Opption cg -Qsched-trace=trace=1,5,qsched=Tone ONESTEP=yes
(using FORTRAN90 compiler of Sun ONE Studio 7)
187.facerec: -fast -xchip=ultra3 -xcache=128/64:2:2048/64/4
-xarch=v8plus -xcrossfile -Opption cg -Qsched-trace=trace=1,5,qsched=Tone -lprism32 FDO ONESTEP=yes
191.fma3d3: -fast -xchip=ultra3 -xcache=128/64:2:2048/64/4
-xarch=v8plus -xcrossfile -Qscopt -xdepend -xpfige -Opption cg
-Ql=1-av=448-t=11-fa=1 -lprism32 FDO ONESTEP=yes
301.apsi: -fast -xchip=ultra3 -xcache=128/64:2:2048/64/4
-xarch=v8plus -xrestrict -xalias_level=strong -xdepend -W2,-whole,-Amemopt:arrayloc -xprefetch
-Wc,-Qms_pipe-pref,-Ql=1-av=384-t=8-fa=1-fl=1 -lprism32 -lm FDO ONESTEP=yes
188.ammp: -fast -xchip=ultra3 -xcache=128/64:2:2048/64/4
-xarch=v8plus -xcrossfile -xrestrict -xalias_level=strong -xdepend -xarch=v8plus -xpfige -lprism32 FDO ONESTEP=yes
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Notes/Tuning Information (Continued)

Portability:
178.galgel: -Am -Fixed (for Parallelnavi 2.0.1)
187.facerec: -Am (for Parallelnavi 2.0.1)
191.fma3d: -Am (for Parallelnavi 2.0.1)

Note:
System Tunables: (for /etc/system)
consistent_coloring=1,
shmsys:shminfo_shmmni=256,
shmsys:shminfo_shmmax=2147483648,
shmsys:shminfo_shmseg=400, shminfo_shmmin=1
set tune_t_fsflushr = 86400
set autoup = 86400
(for /etc/opt/FJSVpnrm/lpg.conf)
TSS=512M, SHMSEG SIZE=256M

Shell Environments:
LD_LIBRARY_PATH="/opt/FSUNf90/lib:/space/SUNWspro/prod/lib:/usr/lib"
PRISM HEAP=268435456
PRISM MODE=2

Feedback directed optimization was used except Fortran baseline and 173.applu(peak).
Small configuration memory system mode used ("4cpu mode", enabled via front panel).
Stack size set to unlimited via "ulimit -s unlimited"
System board used with only one CPU present.
All patches of Sun ONE Studio 7 posted at URL http://access1.sun.com/sundev/s1s7-patches.html as of date 2002/09/24 were applied: 111704-04, 111705-02, 111706-02, 111708-01, 111709-02, 111714-02, 111715-01, 111716-02, 111718-01, 111723-01.
All patches for Sun ONE Studio 7 SPARC SunOS 5.8 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 2002/09/24 were applied: 108434-08, 108435-08, 111697-03, 111721-02.