CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

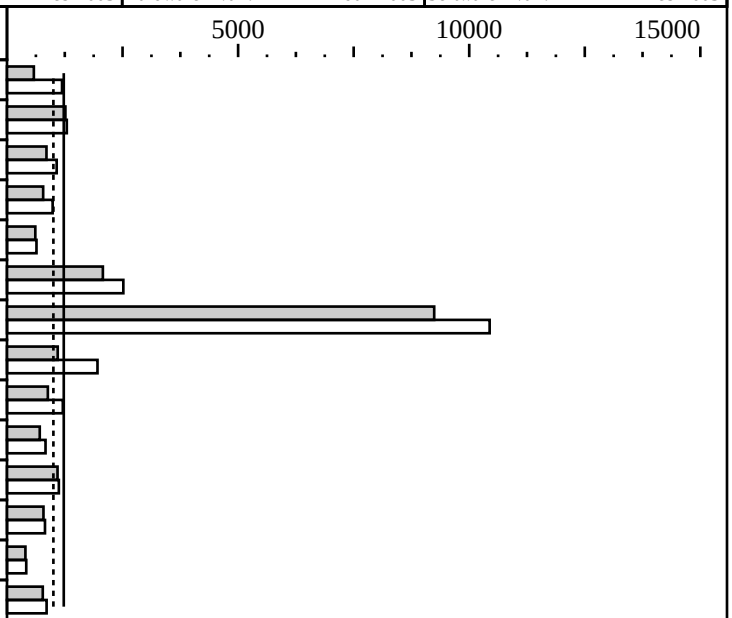
Fujitsu Limited
PRIMEPOWER900 (1350MHz)

SPECfp2000 = 1228

SPECfp_base2000 = 1004

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	276	581	134	1191
171.swim	3100	245	1263	240	1294
172.mgrid	1800	211	854	167	1075
173.applu	2100	268	782	213	987
177.mesa	1400	229	613	220	638
178.galgel	2900	140	2074	115	2517
179.art	2600	28.1	9242	24.9	10442
183.equake	1300	118	1097	66.4	1958
187.facerec	1900	215	884	157	1208
188.ammp	2200	310	709	264	834
189.lucas	2000	183	1093	178	1122
191.fma3d	2100	266	789	256	822
200.sixtrack	1100	276	399	264	416
301.apsi	2600	336	774	303	857



Hardware

CPU:	SPARC64 V
CPU MHz:	1350
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 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:	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 2.1 with patch 912528-02 Sun ONE Studio 7 with current patches (see notes) Sun Performance Library 7
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
FDO: (for Parallelnavi 2.1)
   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
   PASS2=-xprofile=use:‘pwd‘/../feedback
Baseline:
(using Fortran compiler of Parallelnavi 2.1)
   -Kfast_GP2=2,prefetch_infer,largepage -O5
(using C compiler of Sun ONE Studio 7)
   -fast -xtarget=ultra2 -xipo=2 FDO
Peak:
(for Parallelnavi 2.1)
168.wupwise: -fs -Kfast_GP2=2,largepage -O5 -x dir=../../src
    -Kpreex,prefetch_infer,alignl=64,preschedule_length=17 FDO
171.swim: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -O5
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

```
    -Kpreex,commonpad=168,prefetch_cache_level=3,prefetch_line_L2=6,
    prefetch_line_L2=6,prefetch_line=6,frecipro,prefetch=4 FDO
172.mgrid: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM -Kpreex,prefetch_line=6,commonpad=144,alignc=64 FDO
178.galgel: -fs -Kfast_GP2=2,largepage,GREG_SYSTEM
   -Kpreex,prefetch_infer,prefetch=4,frecipro,unroll=2,commonpad=152,arraypad_const=11,alignl=64
    -x dir=../../src -KFMADD -SSL2 FDO RM_SOURCES=lapak.f90
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 -x dir=../../src -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 7)
173.applu: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plusb
    -Qoption iropt -Adata_access,-Mt7000,-Mm14000,-Mr40000,-Ma400,-whole
    -xregs=syst -Qoption iropt -Rscalarrep,-MR -Qoption cg
    -Qlp=1-av=128-t=2-fa=1-fl=1 -Qoption f90comp -O3 -Qoption cg
    -Qgsched-trace_late=1,-Qgsched-T4 -stackvar ONESTEP=yes
301.apsi: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4 -xarch=v8plus
    -Qoption iropt -Mt400 -xdepend -xregs=syst -lprism32 FDO ONESTEP=yes
187.facerec: -xO5 -xchip=ultra3 -xcache=128/64/2:2048/64/4 -xarch=v8plus
    -xprefetch=yes -xprefetch_level=1 -xvector=no -xdepend -ftrap=%none
    -fns -fsimple=2 -lprism32 FDO ONESTEP=yes

(using C compiler of Sun ONE Studio 7)
177.mesa: -fast -xchip=ultra2 -xcache=128/64/2:2048/64/4 -xarch=v8plusb -xcrossfile
    -Wc,-Qgsched-trace_late=1,-Qgsched-T4 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: -fast -xchip=ultra3cu -xcache=128/64/2:2048/64/4 -xarch=v8plusb
    -xalias_level=strong -xdepend -W2,-whole,-Amemopt:arrayloc -xprefetch
    -Wc,-Qms_pipe-pref,-Qlp=1-av=512-t=6-fa=1-fl=1 -lprism32 -lmopt -lm FDO ONESTEP=yes
188.ammp: -fast -xchip=ultra3 -xcache=128/64/2:2048/64/2 -xarch=v8plusb
   -xcrossfile -xrestrict -xalias_level=strong -xdepend -xprefetch -lprism32 FDO ONESTEP=yes

Portability:
178.galgel: -Am -Fixed (for Parallelnavi 2.1)
187.facerec: -Am (for Parallelnavi 2.1)
191.fma3d: -Am (for Parallelnavi 2.1)

Note:
 System Tunables: (for /etc/system)
 consistent_coloring=1,
 shmsys:shminfo_shmmax=2147483648, 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=512M, SHMSEGSIZE=256M
Shell Environments:
 LD_LIBRARY_PATH="/opt/SUNWspro/prod/lib/v8plusb"
 PRISM_HEAP=268435456
 PRISM_MODE=2
Feedback directed optimization was used except Fortran baseline, 173.applu(peak) and 301.apsi(peak).
Small configuration memory system mode used ("4cpu mode", enabled via system console).
Stack size set to unlimited via "ulimit -s unlimited"
System board used with only one CPU present.
```

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Notes/Tuning Information (Continued)

All patches of Sun ONE Studio 7 posted at URL http://access1.sun.com/sundev/s1s7-patches.html as of date 2003/02/22 were applied: 111704-06, 111706-04, 111709-02, 111715-04, 111718-01, 111705-03, 111708-03, 111714-04, 111716-02, 111723-02.

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 2003/02/22 were applied: 108434-10, 108435-10, 111697-04, 111721-02.