CFP2000 Result

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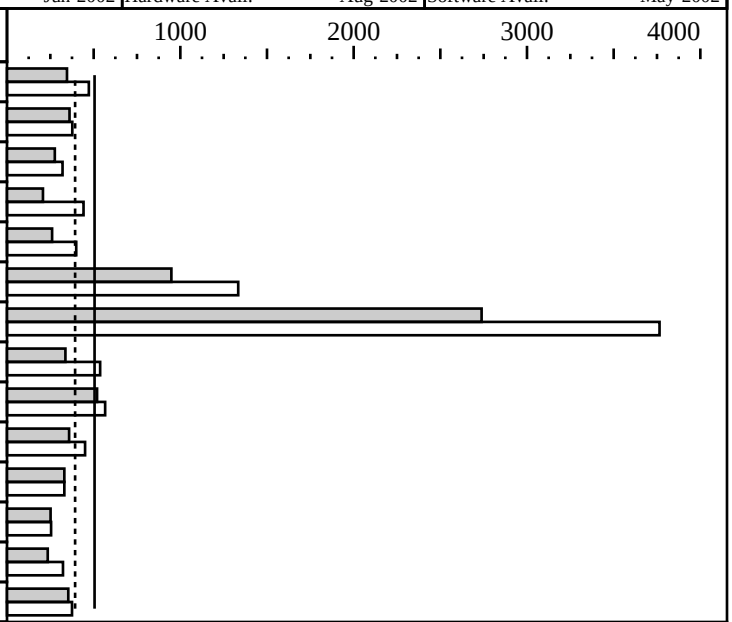
Fujitsu Limited
PRIMEPOWER200 (700MHz)

SPECfp2000 = 505

SPECfp_base2000 = 393

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Jun-2002 | Hardware Avail: Aug-2002 | Software Avail: May-2002

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	462	346	339	472
171.swim	3100	860	361	823	377
172.mgrid	1800	653	276	562	320
173.applu	2100	1012	207	476	442
177.mesa	1400	538	260	351	399
178.galgel	2900	306	948	217	1334
179.art	2600	95.0	2738	69.1	3765
183.equake	1300	386	337	242	537
187.facerec	1900	366	520	336	566
188.ammp	2200	614	358	488	450
189.lucas	2000	605	331	605	331
191.fma3d	2100	835	251	826	254
200.sixtrack	1100	468	235	341	323
301.apsi	2600	735	354	693	375



Hardware

CPU:	SPARC64 GP
CPU MHz:	700
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1 to 2
Parallel:	None
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	8MB(I+D) off chip, per CPU
L3 Cache:	None
Other Cache:	None
Memory:	4096MB
Disk Subsystem:	1 x 36.4GB SCSI (10000rpm)
Other Hardware:	Ethernet

Software

Operating System:	Solaris 8 2/02 with patches 108434-07 and 108435-07.
Compiler:	Fujitsu Parallelnavi 1.0.2 with patches 911403-01 and 911746-01. Sun ONE Studio 7 with patches 111704-01, 111705-01, 111706-01, 111708-01, 111709-01, 111715-01 and 111716-01 Sun Performance Library 7
File System:	ufs
System State:	single user

Notes/Tuning Information

```
FDO: (Parallelnavi 1.0.2)
    fdo_pre0=rm -rf ‘pwd‘/*.*.d
    PASS1=-Kpg    PASS2=-Kpu
FDO: (Sun ONE Studio 7)
    fdo_pre0=rm -rf ‘pwd‘/../feedback.profile
    PASS1=-xprofile=collect:‘pwd‘/../feedback
    PASS2=-xprofile=use:‘pwd‘/../feedback
Baseline :
(using Fortran compiler of Sun ONE Studio 7)
-fast -xtarget=ultra3 -lprism32 FDO

(using C compiler of Sun ONE Studio 7)
-fast -xipo=2 -xdepend FDO

Peak:
(using FORTRAN77 compiler of Sun ONE Studio 7)
 168.wupwise: -fast -xtarget=ultra3 -xarch=v8plus -xipo=2 -xlic_lib=sunperf -lprism32 FDO ONESTEP=yes
```

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Notes/Tuning Information (Continued)

```
 173.applu: -fast -xtarget=ultra3 -Qoption iropt -Adata_access,-Mt7000,-Mm14000,-Mr40000,-Ma400,-whole
    -xregs=syst -Qoption iropt -Rscalarrep,-MR -Qoption cg -Qlp=1-av=192-fa=1 -Qoption f90comp -O3 -stackvar
    ONESTEP=yes

(using FORTRAN90 compiler of Sun ONE Studio 7)
 187.facerec: -fast -xarch=v9 FDO ONESTEP=yes
 189.lucas: basepeak=yes
 191.fma3d: -fast -xarch=v8plusb -xcrossfile -stackvar -xdepend
     -xprefetch -Qoption cg -Qlp=1-av=256-t=3-fa=1 FDO ONESTEP=yes

(using Fortran compiler of Parallelnavi 1.0.2)
 171.swim:  -Kfast_GP=2,GREG,preex,ilfunc,prefetch=3,largepage,commonpad=152,prefetch_iteration=3,unroll=2,nogs,frecipro
     -O4 -fs
 172.mgrid: -Kfast_GP=2,preex,GREG,commonpad=144,unroll=3,prefetch=3
    -O4 -fs
 178.galgel: -Kfast_GP=2,GREG,largepage,preex,unroll=3,prefetch_iteration=2,commonpad=24 -O4 -lssl2mtfma -fs
    FDO RM_SOURCES=lapak.f90
 200.sixtrack: -Kfast_GP=2,GREG,noprefetch,unroll=4,largepage,frecipro -fs
 301.apsi: -Kfast_GP=2,GREG,preex,ilfunc,largepage,unroll=2 -O4 -fs

(using C compiler of Sun ONE Studio 7)
 177.mesa: -fast -xtarget=ultra2 -xcrossfile -xrestrict -xalias_level=strong -xregs=syst
    -Wc,-Qgsched-trace_late=1,-Qgsched-trace_spec_load=1 -xarch=v8plus -W2,-Amemopt -xsafe=mem -dn
    FDO ONESTEP=yes
 179.art: -fast -xtarget=ultra3 -xipo=2 -xalias_level=strong -xregs=syst -dn
    FDO ONESTEP=yes
 183.equake: -fast -xtarget=ultra3 -xalias_level=std -xdepend -W2,-whole,-Amemopt:arrayloc,-crit
     -xprefetch -Wc,-Qms_pipe-pref,-Qlp=1-av=256-t=4-fa=1-fl=1 -lprism32 -lmopt -lm
    FDO ONESTEP=yes
 188.ammp: -fast -xtarget=ultra3 -xcrossfile -xrestrict
     -xalias_level=strong -xdepend -xprefetch
     -Wc,-Qiselect-funcalign=64 -lprism32 FDO ONESTEP=yes

Portability:
 (for Sun ONE Studio 7)
   178.galgel: -e -fixed
 (for Parallelnavi 1.0.2)
   178.galgel: -Am -Fixed

Note:
 System Tunables: (for /etc/system)
  consistent_coloring=1, tune_t_fsflushr=86400, autoup=86400,
 shmsys:shminfo_shmmax=1477846784, shmsys:shminfo_shmmni=1024, shmsys:shminfo_shmseg=1024,shminfo_shmmin=1
 (for /etc/opt/FJSVpnrm/lpg.conf)
  TSS=2G, SHMSEGSIZE=256M
 Shell Environments:
   LD_LIBRARY_PATH="/usr/lib:/opt/SUNWspro/lib/v8plusb:/opt/SUNWspro/prod/lib/v8plusb:/opt/FSUNf90/lib"
    LD_LIBRARY_PATH_64="/usr/lib/64:/opt/SUNWspro/lib/v9:/opt/SUNWspro/prod/lib/v9"
    PRISM_HEAP=268435456
    PRISM_MODE=2
 Feedback directed optimization was used for all baseline benchmarks and peak benchmarks
 except following peak benchmarks: 171.swim, 172.mgrid, 173.applu, 200.sixtrack.
 System board used with only one CPU present.
```