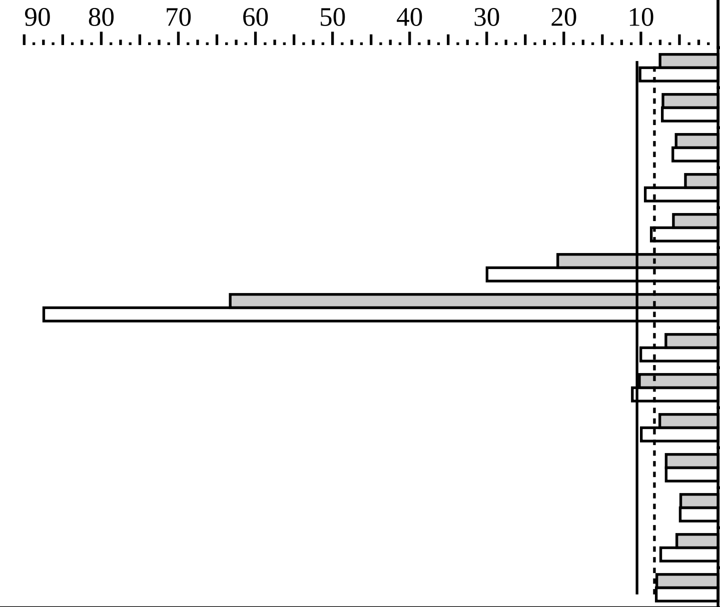
CFP2000 Result

Fujitsu Limited
PRIMEPOWER200 (700MHz)

SPECfp_rate2000 = 10.5

SPECfp_rate_base2000 = 8.25

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	494	7.52	2	367	10.1
171.swim	2	1007	7.14	2	996	7.22
172.mgrid	2	768	5.44	2	713	5.86
173.applu	2	1154	4.22	2	516	9.44
177.mesa	2	562	5.78	2	375	8.66
178.galgel	2	324	20.8	2	225	30.0
179.art	2	95.3	63.3	2	69.0	87.5
183.equake	2	446	6.76	2	301	10.0
187.facerec	2	432	10.2	2	397	11.1
188.ammp	2	676	7.55	2	513	9.95
189.lucas	2	690	6.72	2	690	6.72
191.fma3d	2	1008	4.83	2	994	4.90
200.sixtrack	2	478	5.34	2	344	7.43
301.apsi	2	760	7.94	2	753	8.01

Hardware

CPU:	SPARC64 GP
CPU MHz:	700
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 1 core/chip
CPU(s) orderable:	1 to 2
Parallel:	None
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	4MB(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 current patches (see notes) 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 Fortran compiler of Parallelnavi 1.0.2)
 168.wupwise: -Kfast_GP=2,prefetch=4,nounroll -x dir=‘pwd‘/../../src
```

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Notes/Tuning Information (Continued)

```
    -fs -lssl2mtfma FDO ONESTEP=yes
 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 FORTRAN77 compiler of Sun ONE Studio 7)
 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 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,
 (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.
 All patches of Sun ONE Studio 7 posted at URL http://access1.sun.com/sundev/s1s7-patches.html
```

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Notes/Tuning Information (Continued)

```
   as of date 2002/6/4 were applied: 111704-01, 111705-01, 111706-01,
111708-01, 111709-01, 111715-01, 111716-01.
```