CFP2000 Result

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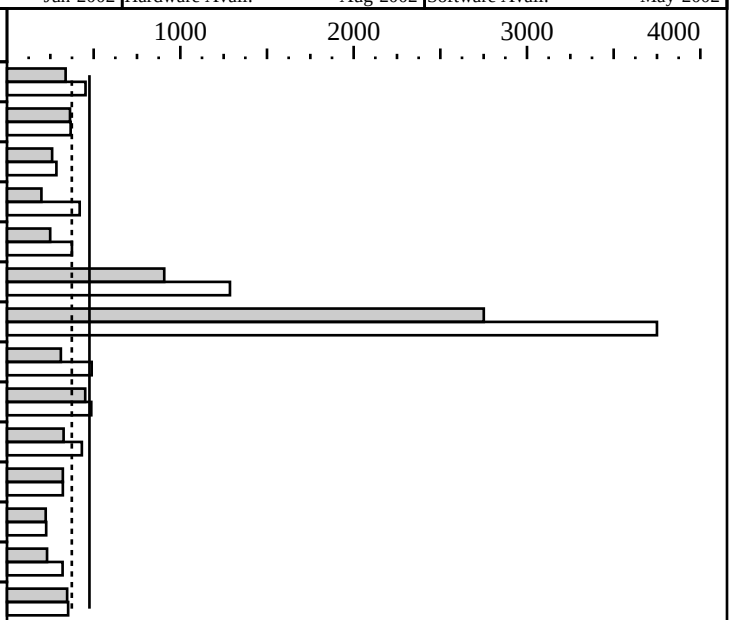
Fujitsu Limited
PRIMEPOWER200 (700MHz)

SPECfp2000 = 476

SPECfp_base2000 = 374

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	473	338	353	453
171.swim	3100	853	364	844	367
172.mgrid	1800	691	260	631	285
173.applu	2100	1058	199	501	419
177.mesa	1400	562	249	374	375
178.galgel	2900	320	907	225	1286
179.art	2600	94.5	2751	69.3	3750
183.equake	1300	418	311	266	489
187.facerec	1900	421	451	391	486
188.ammp	2200	674	327	509	432
189.lucas	2000	621	322	621	322
191.fma3d	2100	940	223	929	226
200.sixtrack	1100	476	231	343	321
301.apsi	2600	749	347	737	353



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:	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 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 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.
```