CFP2000 Result

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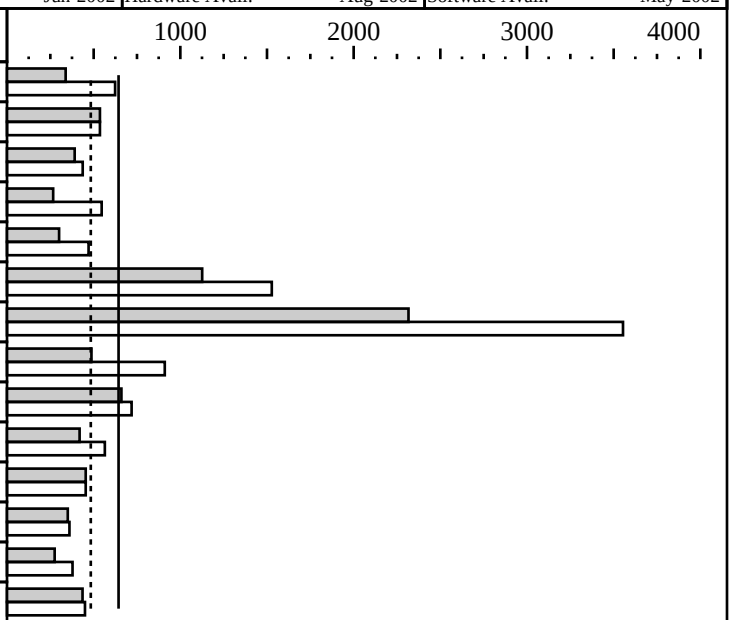
Fujitsu Limited
PRIMEPOWER650 (810MHz)

SPECfp2000 = 644

SPECfp_base2000 = 483

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	257	624
171.swim	3100	578	536	578	536
172.mgrid	1800	461	390	412	437
173.applu	2100	788	266	384	546
177.mesa	1400	466	301	297	471
178.galgel	2900	258	1126	190	1528
179.art	2600	112	2316	73.2	3554
183.equake	1300	267	487	143	910
187.facerec	1900	288	660	264	719
188.ammp	2200	525	419	390	564
189.lucas	2000	440	454	440	454
191.fma3d	2100	599	351	583	360
200.sixtrack	1100	400	275	291	378
301.apsi	2600	597	436	578	450



Hardware

CPU:	SPARC64 GP
CPU MHz:	810
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	2 to 8
Parallel:	None
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	8MB(I+D) off chip, per CPU
L3 Cache:	None
Other Cache:	None
Memory:	8192MB
Disk Subsystem:	36GB SCSI
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)
```

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Notes/Tuning Information (Continued)

```
 168.wupwise: -Kfast_GP=2,prefetch=4,nounroll -x dir='pwd'/../../src
    -fs -lssl2mtfma FDO ONESTEP=yes
 172.mgrid: -Kfast_GP=2,preex,GREG,commonpad=144,unroll=3,largepage,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)
 171.swim: basepeak=yes
 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=1

 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,
  shmsys:shminfo_shmmax=1477846784, shmsys:shminfo_shmmni=1024, shmsys:shminfo_shmseg=1024,shminfo_shmmin=1
 (for /etc/opt/FJSVpnrm/lpg.conf)
  TSS=512M, SHMSEGSIZE=256M
 Shell Environments:
   LD_LIBRARY_PATH="/usr/lib:/opt/FD7/SUNWspro/lib/v8plusb:/opt/FD7/SUNWspro/prod/lib/v8plusb:/opt/FSUNf90/lib"
    LD_LIBRARY_PATH_64="/usr/lib/64:/opt/FD7/SUNWspro/lib/v9:/opt/FD7/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.
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Notes/Tuning Information (Continued)

Small configuration memory system mode used ("4cpu mode", enabled via front panel).
System board used with only one CPU present.