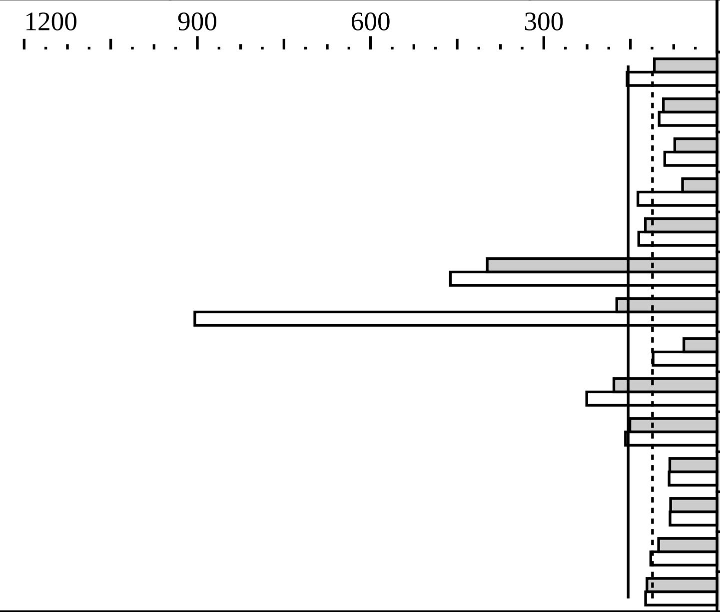
CFP2000 Result

Fujitsu Siemens Computers
PRIMEPOWER2000 (675MHz)

SPECfp_rate2000 = 154
SPECfp_rate_base2000 = 112

SPEC license #: 22	Tested by: Fujitsu Limited	Test date: Sep-2001	Hardware Avail: Nov-2001	Software Avail: Dec-2001



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	32	547	109	32	381	156
171.swim	32	1239	92.9	32	1149	100
172.mgrid	32	913	73.2	32	738	90.6
173.applu	32	1306	59.7	32	569	137
177.mesa	32	419	124	32	383	136
178.galgel	32	270	398	32	233	462
179.art	32	556	174	32	107	904
183.equake	32	841	57.4	32	436	111
187.facerec	32	395	179	32	312	226
188.ammp	32	541	151	32	515	158
189.lucas	32	908	81.7	32	895	83.0
191.fma3d	32	970	80.4	32	958	81.4
200.sixtrack	32	404	101	32	356	115
301.apsi	32	795	121	32	780	124

Hardware

CPU:	SPARC64 GP
CPU MHz:	675
FPU:	Integrated
CPU(s) enabled:	32 cores, 32 chips, 1 core/chip
CPU(s) orderable:	8 to 128
Parallel:	None
Primary Cache:	128KBI+128KBD on chip
Secondary Cache:	8MB(I+D) off chip, per CPU
L3 Cache:	None
Other Cache:	None
Memory:	32GB
Disk Subsystem:	1 x 36GB, 1 x 18GB SCSI (10000rpm)
Other Hardware:	None

Software

Operating System:	Solaris 8 7/01
Compiler:	Fujitsu Parallelnavi 1.0.2 with patch 911403-01 Sun Forte Developer 6 update 2
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
FDO: (Parallelnavi 1.0.2)
    fdo_pre0=rm -rf ‘pwd‘/*.*.d
    PASS1=-Kpg    PASS2=-Kpu
FDO: (Forte Developer 6 update 2)
    fdo_pre0=rm -rf ‘pwd‘/../feedback.profile
    PASS1=-xprofile=collect:‘pwd‘/../feedback
    PASS2=-xprofile=use:‘pwd‘/../feedback
Baseline :
(using Fortran compiler of Parallelnavi 1.0.2)
-Kfast_GP=2,largepage -O4 -fs FDO

(using C compiler of Parallelnavi 1.0.2)
-Kfast_GP=2,largepage FDO

Peak:
(using Fortran compiler of Parallelnavi 1.0.2)
 168.wupwise: -Kfast_GP=2,prefetch=4,nounroll -x dir=‘pwd‘/../../src -fs
```

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Notes/Tuning Information (Continued)

```
    FDO ONESTEP=yes
 171.swim: -Kfast_GP=2,GREG,preex,ilfunc,prefetch=3,commonpad=152,prefetch_iteration=3,unroll=2,nogs,frecipro
    -O4 -dn -fs
 172.mgrid: -Kfast_GP=2,preex,GREG,commonpad=144,unroll=3,prefetch=3
    -O4 -dn -fs
 178.galgel: -Kfast_GP=2,GREG,largepage,preex,unroll=2,prefetch_iteration=2,commonpad=24
    -O4 -lssl2mtfma -fs FDO
    RM_SOURCES=lapak.f90
 189.lucas: -Kfast_GP=2,GREG,preex,largepage,nounroll -O4 -fs FDO
 191.fma3d: -Kfast_GP=2,preex,GREG,nounroll,prefetch=4,largepage -O4 -fs FDO
 200.sixtrack: -Kfast_GP=2,GREG,noprefetch,unroll=4,frecipro -dn -fs
 301.apsi: -Kfast_GP=2,GREG,preex,largepage,unroll=2 -O4 -fs FDO

(using C compiler of Parallelnavi 1.0.2)
 188.ammp: -Kfast_GP=2,GREG,popt,prefetch=4,preex,preload,largepage,fuse,unroll=3 -x-

(using FORTRAN77 compiler of Forte Developer 6 update 2)
 173.applu: -fast -Qoption iropt -whole,-Adata_access,-Mt6000,-Mm12000,-Mr40000,-Ma400 -xarch=v8plus -dn
    ONESTEP=yes

(using FORTRAN90 compiler of Forte Developer 6 update 2)
 187.facerec: -fast -xarch=v9 FDO ONESTEP=yes

(using C compiler of Forte Developer 6 update 2)
 177.mesa: -fast -xcrossfile -xrestrict -xalias_level=std -xregs=syst -Wc,-Qgsched-trace_late=1,-Qgsched-trace_spec_load=1
    -xarch=v8plus -W2,-Amemopt -dn
    FDO ONESTEP=yes
 179.art: -fast -xalias_level=strong -xdepend -xregs=syst -W2,-whole,-Amemopt
    -xarch=v8plus -lmopt -lm -dn FDO ONESTEP=yes
 183.equake: -fast -xalias_level=strong -xdepend -W2,-whole,-Amemopt
    -xarch=v8plus -lmopt -lm FDO ONESTEP=yes

Portability:
 (for Parallelnavi 1.0.2)
   178.galgel: -Am -Fixed
   187.facerec: -Am
   191.fma3d: -Am

Note:
 System Tunables: (for /etc/system)
  consistent_coloring=1, tune_t_fsflushr=86400, autoup=86400,
  shmsys:shminfo_shmmax=8589934592, shmsys:shminfo_shmmni=1024, shmsys:shminfo_shmseg=1024
 (for /etc/opt/FJSVpnrm/lpg.conf)
  TSS=512M, SHMSEGSIZE=256M
 Feedback directed optimization was used for all baseline benchmarks and peak benchmarks
 except following peak benchmarks: 171.swim, 172.mgrid, 173.applu, 188.ammp, 200.sixtrack.
```