



CFP2000 Result

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Fujitsu Siemens Computers
PRIMEPOWER2000 (675MHz)

SPECfp_rate2000 = 517
SPECfp_rate_base2000 = 381

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	128	649	366	128	471	505
171.swim	128	1673	275	128	1610	286
172.mgrid	128	1182	226	128	1030	260
173.applu	128	1704	183	128	722	432
177.mesa	128	456	456	128	433	480
178.galgel	128	283	1521	128	244	1762
179.art	128	566	683	128	109	3538
183.quake	128	1044	185	128	559	346
187.facerec	128	435	649	128	341	828
188.amp	128	563	580	128	538	608
189.lucas	128	1188	250	128	1164	255
191.fma3d	128	1235	252	128	1218	256
200.sixtrack	128	426	384	128	388	421
301.apsi	128	936	413	128	924	418

Hardware

CPU: SPARC64 GP
CPU MHz: 675
FPU: Integrated
CPU(s) enabled: 128 cores, 128 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: 128GB
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,largepage -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,largepage,commonpad=152,prefetch_iteration=3,unroll=2,nogs,frecipro
-O4 -fs

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=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.quake: -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/FJSVpnm/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.