



CFP2000 Result

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Fujitsu Siemens Computers
PRIMEPOWER650/850 (675MHz)

SPECfp_rate2000 = 44.0
SPECfp_rate_base2000 = 32.2

SPEC license #: 22 | Tested by: Fujitsu Limited | Test date: Oct-2001 | Hardware Avail: Feb-2002 | Software Avail: Dec-2001

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	8	462	32.1	8	323	46.0
171.swim	8	848	33.9	8	800	36.0
172.mgrid	8	703	23.7	8	538	31.0
173.applu	8	989	19.7	8	492	39.6
177.mesa	8	401	32.4	8	377	34.5
178.galgel	8	270	99.8	8	232	116
179.art	8	557	43.3	8	107	225
183.equake	8	679	17.8	8	359	33.6
187.facerec	8	381	46.2	8	302	58.4
188.amp	8	542	37.7	8	516	39.6
189.lucas	8	692	26.8	8	680	27.3
191.fma3d	8	780	25.0	8	770	25.3
200.sixtrack	8	400	25.5	8	353	28.9
301.apsi	8	694	34.8	8	683	35.4

Hardware

CPU: SPARC64 GP
 CPU MHz: 675
 FPU: Integrated
 CPU(s) enabled: 8 cores, 8 chips, 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: 16GB
 Disk Subsystem: 2 x 18GB SCSI (10025rpm)
 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,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,largepage,frecipro -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.

Extended Interleave Mode enabled.