



CFP2000 Result

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Fujitsu Siemens Computers PRIMEPOWER400 (600MHz)

SPECfp2000 = 428
SPECfp_base2000 = 314

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
168.wupwise	1600	509	314	349	458
171.swim	3100	926	335	833	372
172.mgrid	1800	722	249	566	318
173.aplu	2100	1060	198	542	387
177.mesa	1400	440	318	416	336
178.galgel	2900	291	998	248	1170
179.art	2600	619	420	116	2237
183.earthquake	1300	790	165	422	308
187.facerec	1900	434	438	357	532
188.amp	2200	603	365	575	383
189.lucas	2000	740	270	726	275
191.fma3d	2100	988	213	953	220
200.sixtrack	1100	443	248	391	281
301.apsi	2600	758	343	746	349

Hardware

CPU: SPARC64 GP
 CPU MHz: 600
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 1 to 4
 Parallel: None
 Primary Cache: 128KBI+128KBD on chip
 Secondary Cache: 8MB(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 4/01
 Compiler: Fujitsu Parallelnavi 1.0.2
 Sun Forte Developer 6 update 2
 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: (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:



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Notes/Tuning Information (Continued)

(using Fortran compiler of Parallelnavi 1.0.2)

```

168.wupwise: -Kfast_GP=2,prefetch=4,nounroll -x dir=`pwd`/../../src -fs
  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
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
191.fma3d: -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.earthquake: -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.
System board used with only one CPU present.

```

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