CFP2000 Result

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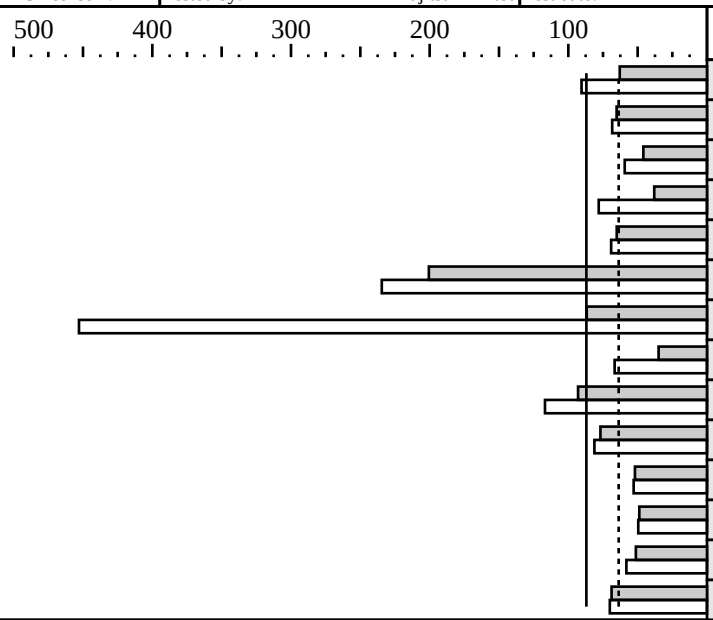
Fujitsu Siemens Computers PRIMEPOWER850 (675MHz)

SPECfp_rate2000 = 87.0

SPECfp_rate_base2000 = 63.7

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	16	472	62.9	16	328	90.5
171.swim	16	883	65.2	16	842	68.4
172.mgrid	16	728	45.9	16	563	59.3
173.applu	16	1024	38.0	16	499	78.1
177.mesa	16	399	65.1	16	376	69.1
178.galgel	16	268	201	16	229	235
179.art	16	556	86.7	16	107	453
183.equake	16	691	34.9	16	362	66.6
187.facerec	16	379	93.0	16	302	117
188.ammp	16	531	76.9	16	503	81.2
189.lucas	16	714	52.0	16	702	52.9
191.fma3d	16	798	48.8	16	786	49.6
200.sixtrack	16	398	51.3	16	351	58.1
301.apsi	16	701	68.8	16	689	70.1

Hardware

CPU:	SPARC64 GP
CPU MHz:	675
FPU:	Integrated
CPU(s) enabled:	16 cores, 16 chips, 1 core/chip
CPU(s) orderable:	4 to 16
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:	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.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.
 Extended Interleave Mode enabled.
```