CFP2000 Result

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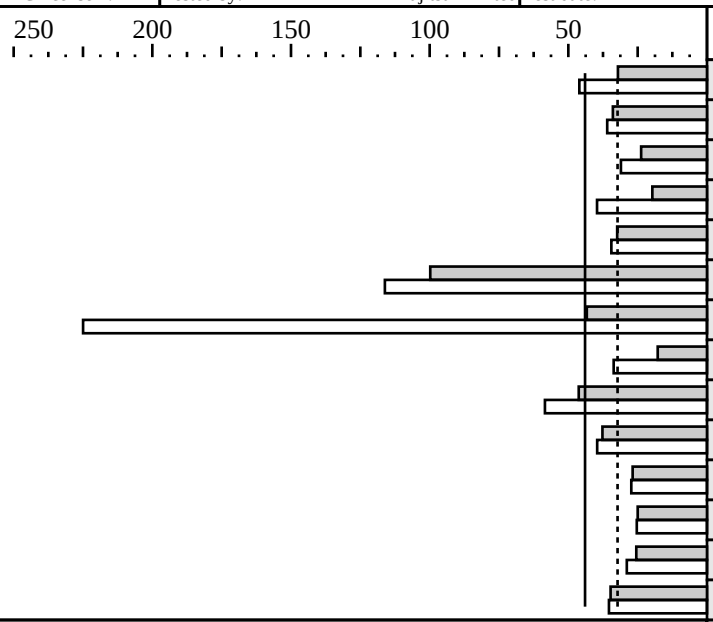
Fujitsu Siemens Computers
PRIMEPOWER650/850 (675MHz)

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.ammp	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.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.
```