



# CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Fujitsu Limited  
PRIMEPOWER900 (2160MHz)

SPECfp\_rate2000 = 174  
SPECfp\_rate\_base2000 = 127

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Apr-2005 | Hardware Avail: Jun-2005 | Software Avail: Apr-2004

				Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
4000	3000	2000	1000	168.wupwise	8	172	86.2	8	108	138
				171.swim	8	330	87.3	8	98.4	292
				172.mgrid	8	217	77.0	8	205	81.4
				173.applu	8	302	64.5	8	120	162
				177.mesa	8	119	109	8	97.9	133
				178.galgel	8	77.9	346	8	52.1	516
				179.art	8	12.1	1999	8	11.9	2034
				183.equake	8	78.5	154	8	77.5	156
				187.facerec	8	147	120	8	79.6	222
				188.amp	8	160	128	8	143	142
				189.lucas	8	227	81.8	8	202	92.1
				191.fma3d	8	231	84.4	8	231	84.4
				200.sixtrack	8	169	60.3	8	158	64.4
				301.apsi	8	232	104	8	184	131

### Hardware

CPU: SPARC64 V  
CPU MHz: 2160  
FPU: Integrated  
CPU(s) enabled: 8 cores, 8 chips, 1 core/chip  
CPU(s) orderable: 1 to 16 (increments of 1)  
Parallel: None  
Primary Cache: 128KBI + 128KBD on chip  
Secondary Cache: 4MB(I+D) on chip  
L3 Cache: None  
Other Cache: None  
Memory: 32768MB  
Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)  
Other Hardware: None

### Software

Operating System: Solaris 9 4/04  
Compiler: (Fortran)  
Fujitsu Parallelnavi 2.3 with patch 913221-03  
Sun Studio 9  
Sun Performance Library 9  
(C)  
Sun Studio 9  
File System: ufs  
System State: multi user

## Notes/Tuning Information

```
FDO: (for Parallelnavi 2.3)
fdo_pre0=rm -rf `pwd`/*.f.d
PASS1=-Kpg
PASS2=-Kpu
FDO: (for Sun Studio 9)
fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
PASS1=-xprofile=collect:./feedback
PASS2=-xprofile=use:./feedback
```

```
Floating point base flags:
(using Fortran compiler of Parallelnavi 2.3)
-Kfast_GP2=3,prefetch_infer,GREG_SYSTEM -O5
(using C compiler of Sun Studio 9)
-fast -xtarget=ultra3 -xipo=2 ONESTEP=yes FDO
```

Floating point peak flags:



# CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Fujitsu Limited  
PRIMEPOWER900 (2160MHz)

SPECfp\_rate2000 = 174  
SPECfp\_rate\_base2000 = 127

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Apr-2005 | Hardware Avail: Jun-2005 | Software Avail: Apr-2004

## Notes/Tuning Information (Continued)

(using Fortran compiler of Parallelnavi 2.3)

172.mgrid: -Kfast\_GP2=2,GREG\_SYSTEM -O4 -Kcommonpad=180,alignc=64  
189.lucas: -Kfast\_GP2=3 -O5 -x dir=./ -Kunroll=2 FDO  
191.fma3d: -Am -Kfast\_GP2=3,GREG\_SYSTEM -O4 -x dir=./ -x70 -Kprefetch\_infer FDO  
200.sixtrack: -Kfast\_GP2=3 -O4 -x dir=./ -Kunroll=3 -fs FDO

(using Fortran compiler of Sun Studio 9)

168.wupwise: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
-xipo=1 -Qoption iropt -Ainline:inc=800:cp=1  
ONESTEP=yes FDO  
171.swim: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
-xpad=common:1700 -Qoption iropt -Ainline:cs=700,Atile:skewp:b10  
173.applu: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
-xipo=2 -Qoption cg -Qlp=1-av=192-t=4-fa=1-fl=0  
-Qoption iropt -Aujam:inner=g ONESTEP=yes FDO  
178.galgel: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
-xipo=2 -Qoption iropt -Addint:sf=9 -xlic\_lib=sunperf  
RM\_SOURCES=lapak.f90 ONESTEP=yes FDO  
187.facerec: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
-xprefetch=latx:1.6 ONESTEP=yes FDO  
301.apsi: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
-xipo=2 ONESTEP=yes FDO

(using C compiler of Sun Studio 9)

177.mesa: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
-xchip=ultra2 -xalias\_level=strong -xipo=2 -xrestrict  
ONESTEP=yes FDO  
179.art: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
-xipo=2 ONESTEP=yes FDO  
183.quake: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4  
-xalias\_level=strong -W2,-whole -Wc,-Qms\_pipe-pref,  
-Qlp=1-av=512-t=6-fa=1-fl=1 ONESTEP=yes FDO  
188.ammp: -fast -xalias\_level=std -xipo=2 ONESTEP=yes FDO

Portability:

178.galgel(base): -Am -Fixed  
178.galgel(peak): -e -fixed  
187.facerec(base): -Am  
191.fma3d(base): -Am

System Tunables:

(for /etc/system)  
set consistent\_coloring=1  
set tune\_t\_fsflushr=86400  
set autoup=86400

Shell Environments:

Stack size set to unlimited via "ulimit -s unlimited"  
MPSSHEAP=4M  
MPSSSTACK=4M  
LD\_PRELOAD=mpss.so.1

Processes were bound to CPUs using "submit=pbind"

Extended Interleave Mode enabled.



# CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Fujitsu Limited  
PRIMEPOWER900 (2160MHz)

SPECfp\_rate2000 = 174  
SPECfp\_rate\_base2000 = 127

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: Apr-2005 | Hardware Avail: Jun-2005 | Software Avail: Apr-2004

## Notes/Tuning Information (Continued)

4 CPUs each on 2 system board. Unused CPUs have physically removed.

Sun Studio 9, posted at URL <http://www.sun.com/software/products/studio/previous/9/index.xml> was used for this submission.