



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEPOWER650 (2160MHz)

SPECfp2000 = 2236

SPECfp_base2000 = 2094

SPEC license #: 19 Tested by: Fujitsu Limited Test date: Dec-2005 Hardware Avail: Feb-2006 Software Avail: Nov-2005

| Benchmark | Reference Time | Base Runtime | Base Ratio | Runtime | Ratio |
|--------------|----------------|--------------|------------|---------|-------|
| 168.wupwise | 1600 | 97.2 | 1646 | 93.6 | 1710 |
| 171.swim | 3100 | 81.8 | 3788 | 69.2 | 4481 |
| 172.mgrid | 1800 | 150 | 1200 | 145 | 1241 |
| 173.applu | 2100 | 121 | 1734 | 110 | 1912 |
| 177.mesa | 1400 | 118 | 1190 | 95.1 | 1472 |
| 178.galgel | 2900 | 58.3 | 4974 | 49.6 | 5851 |
| 179.art | 2600 | 9.83 | 26443 | 9.83 | 26446 |
| 183.earth | 1300 | 58.7 | 2214 | 56.9 | 2283 |
| 187.facerec | 1900 | 63.7 | 2985 | 62.7 | 3029 |
| 188.amp | 2200 | 161 | 1363 | 139 | 1582 |
| 189.lucas | 2000 | 161 | 1245 | 160 | 1251 |
| 191.fma3d | 2100 | 195 | 1076 | 194 | 1084 |
| 200.sixtrack | 1100 | 133 | 827 | 133 | 827 |
| 301.apsi | 2600 | 169 | 1536 | 169 | 1536 |

Hardware

CPU: SPARC64 V
CPU MHz: 2160
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1 to 8 (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: 8GB (512MB x 16)
Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)
Other Hardware: None

Software

Operating System: Solaris 10
Compiler: Sun Studio 11
File System: ufs
System State: multi user

Notes/Tuning Information

```
FDO: (for Sun Studio 11)
fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
PASS1=-xprofile=collect:./feedback
PASS2=-xprofile=use:./feedback
```

```
Floating point base flags:
(using Fortran compiler of Sun Studio 11)
-fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes FDO
(using C compiler of Sun Studio 11)
-fast -xtarget=ultra3 -xipo=2 ONESTEP=yes FDO
```

```
Floating point peak flags:
(using Fortran compiler of Sun Studio 11)
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
```



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEPOWER650 (2160MHz)

SPECfp2000 = 2236

SPECfp_base2000 = 2094

SPEC license #: 19 Tested by: Fujitsu Limited Test date: Dec-2005 Hardware Avail: Feb-2006 Software Avail: Nov-2005

Notes/Tuning Information (Continued)

```

-xprefetch=latx:2.8 -Qoption iropt
-Ainline:cs=700,-Atile:skewp:b19 -xpad=common:1500
172.mgrid: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-stackvar -xipo=2 -xpad=common:800 -xprefetch=latx:1.6
ONESTEP=yes FDO
173.applu: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-stackvar -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
189.lucas: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-stackvar -xipo=2 ONESTEP=yes FDO
191.fma3d: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xipo=2 ONESTEP=yes FDO
200.sixtrack: basepeak=yes
301.apsi: basepeak=yes

```

(using C compiler of Sun Studio 11)

```

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: -e -fixed

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

```

System board used with only ONE CPU present.

Small configuration memory system mode used ("4cpu mode", enabled via front panel).

Sun Studio 11, posted at URL <http://www.sun.com/software/products/studio/index.xml> was used for this submission.