



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEPOWER650 (1890MHz)

SPECfp_rate2000 = 127
SPECfp_rate_base2000 = 91.1

SPEC license #: 19 Tested by: Fujitsu Limited Test date: May-2004 Hardware Avail: Aug-2004 Software Avail: Apr-2004

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	8	198	75.0	8	132	113
171.swim	8	571	50.4	8	108	268
172.mgrid	8	368	45.4	8	347	48.2
173.applu	8	471	41.4	8	145	134
177.mesa	8	144	90.1	8	126	103
178.galgel	8	109	248	8	76.8	351
179.art	8	15.8	1527	8	15.3	1572
183.quake	8	121	99.9	8	121	99.9
187.facerec	8	194	91.0	8	145	122
188.amp	8	194	105	8	184	111
189.lucas	8	415	44.7	8	357	52.0
191.fma3d	8	310	62.9	8	310	62.9
200.sixtrack	8	201	50.8	8	186	54.9
301.apsi	8	295	81.8	8	227	107

Hardware

CPU: SPARC64 V
CPU MHz: 1890
FPU: Integrated
CPU(s) enabled: 8 cores, 8 chips, 1 core/chip
CPU(s) orderable: 1 to 8 (increments of 1)
Parallel: None
Primary Cache: 128KBI + 128KBD on chip
Secondary Cache: 3MB(I+D) on chip
L3 Cache: None
Other Cache: None
Memory: 16384MB
Disk Subsystem: 1 x 36.4GB SCSI (10000rpm)
Other Hardware: None

Software

Operating System: Solaris 9 4/04
Compiler: Fujitsu Parallelnavi 2.3 with patch 913221-03
Sun Studio 8
Sun Performance Library 8
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 8)
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 8)
-fast -xtarget=ultra3 -xipo=2 ONESTEP=yes FDO
```

Floating point peak flags:



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEPOWER650 (1890MHz)

SPECfp_rate2000 = 127
SPECfp_rate_base2000 = 91.1

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: May-2004 | Hardware Avail: Aug-2004 | 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: basepeak=yes
200.sixtrack: -Kfast_GP2=3 -O4 -x dir=./ -Kunroll=3 -fs

(using Fortran compiler of Sun Studio 8)

168.wupwise: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xarch=v8plusa -xipo=2 -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:1660 -xprefetch=latx:2.6
-Qoption cg -Qiselect-funcalign=64
-Qoption iropt -Ainline:cs=700,Atile:skewp:b10
173.applu: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xipo=2 -xprefetch=latx:1.6
-Qoption cg -Qlp=1-av=192-t=4-fa=1-fl=0,-Qms_pipe+prefolim=7
-Qoption iropt -Aujam:inner=g ONESTEP=yes FDO
178.galgel: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xchip=ultra -xipo=2 -Qoption cg -Qiselect-funcalign=64
-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
-xarch=v8plus -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 8)

177.mesa: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xchip=ultra -xalias_level=strong -xipo=2 -xrestrict
-Wc,-Qgsched-T4,-Qgsched-trace_late=1,-Qiselect-funcalign=64,
-Qms_pipe+unoovf ONESTEP=yes FDO
179.art: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xalias_level=std -xarch=v8plusa -xipo=2 -xprefetch=latx:1.2
-Wc,-Qiselect-funcalign=64 ONESTEP=yes FDO
183.quake: basepeak=yes
188.ammp: -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
-xalias_level=std -xipo=2 -xprefetch=latx:1.2 -xrestrict
-Wc,-Qiselect-funcalign=64 ONESTEP=yes FDO

Portability:

178.galgel(peak): -e -fixed
178.galgel(base): -Am -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



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Fujitsu Limited
PRIMEPOWER650 (1890MHz)

SPECfp_rate2000 = 127
SPECfp_rate_base2000 = 91.1

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

Notes/Tuning Information (Continued)

LD_PRELOAD=mpss.so.1

Processes were bound to CPUs using "submit=pbind".

Extended Interleave Mode enabled.

Sun Studio 8, posted at URL <http://www.sun.com/software/products/studio/> was used for this submission.