



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Sun Microsystems
Sun Fire V440 (1600MHz)

SPECfp_rate2000 = 31.2
SPECfp_rate_base2000 = 28.0

SPEC license #: 6 Tested by: Sun Microsystems Test date: Nov-2004 Hardware Avail: Nov-2004 Software Avail: Jan-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	2	114	32.6	2	109	34.1
171.swim	2	316	22.8	2	162	44.4
172.mgrid	2	230	18.2	2	229	18.2
173.applu	2	210	23.2	2	175	27.8
177.mesa	2	157	20.6	2	138	23.6
178.galgel	2	140	47.9	2	117	57.4
179.art	2	22.9	264	2	21.4	282
183.quake	2	75.1	40.2	2	70.0	43.1
187.facerec	2	101	43.7	2	100	44.0
188.amp	2	371	13.7	2	371	13.8
189.lucas	2	216	21.4	2	216	21.4
191.fma3d	2	309	15.8	2	276	17.6
200.sixtrack	2	204	12.5	2	194	13.1
301.apsi	2	282	21.4	2	282	21.4

Hardware

CPU: UltraSPARC IIIi
CPU MHz: 1600
FPU: Integrated
CPU(s) enabled: 2 cores, 2 chips, 1 core/chip
CPU(s) orderable: 2,4
Parallel: No
Primary Cache: 32KBI+64KBD on chip
Secondary Cache: 1MB(I+D) on chip
L3 Cache: None
Other Cache: None
Memory: 8GB 16-way interleaved
Disk Subsystem: 1 x 73GB
Other Hardware: None

Software

Operating System: Solaris 10
Compiler: Sun Studio 9
File System: ufs
System State: Multi-User

Notes/Tuning Information

Compiler invocation:

C: cc
CXX: CC
F90: f90
F77: f90

Floating point base flags:

C: -fast -xipo=2 -xalias_level=std with ONESTEP=yes and feedback
F90: -fast -xipo=2 with ONESTEP=yes and feedback

Floating point peak flags:

ONESTEP=yes and feedback for all benchmarks, unless otherwise noted

168.wupwise: -fast -xipo=2 -Qoption iropt -Ainline:inc=800:cp=1
171.swim: -fast -xpad=common:384 -xprefetch=latx:1.6
-Qoption iropt -Atile:skewp:b6,-Ainline:cs=700
(no feedback)



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Sun Microsystems
Sun Fire V440 (1600MHz)

SPECfp_rate2000 = 31.2
SPECfp_rate_base2000 = 28.0

SPEC license #: 6 | Tested by: Sun Microsystems | Test date: Nov-2004 | Hardware Avail: Nov-2004 | Software Avail: Jan-2005

Notes/Tuning Information (Continued)

```
172.mgrid: -fast -xipo=2
173.applu: -fast -xipo=2
-Qoption cg -Qlp=1-av=192-fa=1,-Qms_pipe+prefolim=7
-Qoption iropt -Aujam:inner=g
177.mesa: -fast -xipo=2 -xalias_level=strong -xrestrict
-Wc,-Qms_pipe+unoovf
178.galgel: -fast -xipo=2 -Qoption iropt -Addint:sf=9 -xlic_lib=sunperf
RM_SOURCES=lapak.f90
179.art: -fast -xipo=2 -xalias_level=std -xprefetch=latx:1.5
183.equake: -fast -xipo=2 -xalias_level=strong -xprefetch_level=2
187.facerec: -fast -xipo=2 -xprefetch=latx:1.5
188.ammp: -fast -xipo=2 -xalias_level=std -lmopt -lm
189.lucas: basepeak=yes
191.fma3d: -fast -xipo=2 -stackvar -xprefetch_level=3
-Qoption iropt -Apf:pdl=1
200.sixtrack: -xO4 -dalign -xchip=ultra3 -xarch=v8plusb -fsimple=2
-xprefetch=no
301.apsi: -fast -xipo=2
```

Feedback is done as follows, unless otherwise noted:

```
fdo_pre0: rm -rf ./feedback.profile ./SunWS_cache
PASS1: -xprofile=collect:./feedback
PASS2: -xprofile=use:./feedback
```

Portability:

```
178.galgel: -e -fixed
```

Shell Environments:

```
Stack size set to unlimited via "ulimit -s unlimited"
MPSSHEAP=512K
MPSSSTACK=512K
LD_PRELOAD=mpss.so.1
```

Kernel Parameters (/etc/system):

```
autoup=900
tune_t_fsflushr=1
```