



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Sun Microsystems
Sun Fire E4900 (8 processor)

SPECfp_rate2000 = 144
SPECfp_rate_base2000 = 121

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

				Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
2000	1500	1000	500	168.wupwise	16	264	113	16	248	120
				171.swim	16	1110	51.8	16	229	251
				172.mgrid	16	662	50.5	16	672	49.7
				173.applu	16	342	114	16	295	132
				177.mesa	16	171	152	16	150	173
				178.galgel	16	204	263	16	149	360
				179.art	16	39.7	1215	16	38.1	1266
				183.equake	16	206	117	16	200	121
				187.facerec	16	146	241	16	146	241
				188.amp	16	342	120	16	342	120
				189.lucas	16	703	52.8	16	698	53.2
				191.fma3d	16	652	59.8	16	656	59.4
				200.sixtrack	16	255	80.0	16	221	92.6
				301.apsi	16	482	100	16	479	101

Hardware

CPU: UltraSPARC IV
CPU MHz: 1350
FPU: Integrated
CPU(s) enabled: 16 cores, 8 chips, 2 cores/chip
CPU(s) orderable: 4, 8, 12, 16, 20, 24 (order by number of chips)
Parallel: No
Primary Cache: 32KBI+64KBD per core on chip (64KBI+128KBD on chip)
Secondary Cache: 8MB(I+D) per core off chip (16MB(I+D) off chip)
L3 Cache: None
Other Cache: None
Memory: 64GB 16-way interleaved
Disk Subsystem: Sun StorEdge S1 Disk Array (2x36GB)
Sun StorEdge 6120 Array (14x73GB)
Other Hardware: None

Software

Operating System: Solaris 10
Compiler: Sun Studio 10
File System: ufs (default ufs logging on with Solaris 10)
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 note

168.wupwise: -fast -xipo=2 -stackvar -Qoption iropt -Ainline:inc=800:cp=1



CFP2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Sun Microsystems
Sun Fire E4900 (8 processor)

SPECfp_rate2000 = 144
SPECfp_rate_base2000 = 121

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

Notes/Tuning Information (Continued)

```

171.swim:      -fast -Qoption iroprt -Atile:skewp -Qoption iropt
              -Aline:cs=700 -xpad=common:3969 -xpagesize=64K
              -xprefetch=latx:1.6 -Qoption cg -Qms_pipe-fpconv
              (no feedback)
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 -xpagesize=8K
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
              -Wc,-Qms_pipe-prefst,-Qms_pipe+prefolim=11 -xpagesize=8K
183.earthquake: -fast -xipo=2 -xalias_level=strong -xprefetch_level=2
187.facerec:  -fast -xipo=2
188.ammp:     -fast -xipo=2 -xalias_level=std -lmopt -lm
189.lucas:    -fast -xipo=2 -stackvar
191.fma3d:    -fast -xipo=2
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

```

The system was configured with multiple file systems.
The O/S was installed on one disk of the Sun StorEdge S1
Disk Array (ufs, ufs w/logging). The benchmark was run on
the Sun StorEdge 6120 Array, using H/W Raid 5 and ufs with
ufs logging file system.