



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Sun Microsystems
Sun Fire X2100

SPECfp2000 = 2241
SPECfp_base2000 = 2045

SPEC license #: 6 Tested by: Sun Microsystems, Santa Clara Test date: Aug-2005 Hardware Avail: Nov-2005 Software Avail: Nov-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
168.wupwise	1600	56.4	2835	55.3	2893	
171.swim	3100	76.6	4045	73.2	4237	
172.mgrid	1800	105	1717	98.8	1822	
173.applu	2100	92.7	2267	86.7	2423	
177.mesa	1400	86.8	1613	72.8	1924	
178.galgel	2900	92.2	3144	64.8	4478	
179.art	2600	108	2408	108	2408	
183.quake	1300	70.4	1846	65.4	1986	
187.facerec	1900	68.2	2785	49.0	3879	
188.amp	2200	148	1487	144	1523	
189.lucas	2000	126	1588	126	1588	
191.fma3d	2100	118	1780	115	1830	
200.sixtrack	1100	126	874	124	888	
301.apsi	2600	120	2173	110	2366	

Hardware

CPU: AMD Opteron (TM) 154
CPU MHz: 2800
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1
Parallel: No
Primary Cache: 64KBI + 64KBD (on chip) per core
Secondary Cache: 1024KB (I+D) (on chip) per core
L3 Cache: N/A
Other Cache: N/A
Memory: 4GB (4x1GB, PC3200 CL3 DDR SDRAM)
Disk Subsystem: SATA, 80GB, 10K RPM
Other Hardware: None

Software

Operating System: Solaris 10 3/05 HW1
Compiler: Sun Studio 11
File System: ufs
System State: Multi-user

Notes/Tuning Information

Compiler invocation:

C: cc
F90: f90
F77: f90

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

Floating point base flags:

F90: -fast -xipo=2 -xarch=amd64 -xprefetch_level=3 ONESTEP=yes
C: -fast -xcrossfile -xalias_level=std -xpagesize=2m ONESTEP=yes

Floating point peak flags:

ONESTEP=yes for all benchmarks

168.wupwise: -fast -xpad=common:3969 -xipo=2 -xarch=amd64 -xprefetch_level=3 -xpagesize_heap=2m



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Sun Microsystems
Sun Fire X2100

SPECfp2000 = 2241

SPECfp_base2000 = 2045

SPEC license #: 6 | Tested by: Sun Microsystems, Santa Clara | Test date: Aug-2005 | Hardware Avail: Nov-2005 | Software Avail: Nov-2005

Notes/Tuning Information (Continued)

```

171.swim:      -fast -xpad=common:3969 -xipo=2 -xvector=simd -xprefetch_level=3 -Qoption iropt
               -Atile:skewp,-Ainline:cs=700 -xarch=amd64 -Qoption ube_ipa -inl_alt
               -xpagesize_stack=2m
172.mgrid:    -fast -stackvar -xpad=common:900 -xipo=2 -xarch=amd64 -xprefetch_level=3 -xvector
               -xpagesize=2m -Qoption ld -M,/usr/lib/ld/map.bssalign
173.applu:    -fast -stackvar -xO4 -xipo=2 -xprefetch_level=3 -xarch=amd64
               -qoption iropt -Rloop_dist -xpagesize_heap=2m
177.mesa:    -fast -xO4 -xipo=2 -Wd,-iropt-prof -xarch=amd64 -xalias_level=strong -xpagesize=2m +FDO
178.galgel:   -fast -xipo=2 -xpagesize_heap=2m -xprefetch_level=3 -xvector=simd -xarch=amd64
               RM_SOURCES=lapak.f90
               EXTRALIBS=-xlic_lib=sunperf
179.art:      basepeak=yes
183.earthquake: -fast -xipo=2 -xprefetch -xalias_level=strong -xpagesize=2m -lmopt -lm +FDO
187.facerec:  -fast -xO4 -xipo=2 -xprefetch_level=3 -xpagesize=2m
               RM_SOURCES=cfft.f90 cffti.f90 cfftf.f90
               EXTRALIBS=-xlic_lib=sunperf
188.ammp:    -fast -xO4 -xipo=2 -xarch=amd64 -xalias_level=std -xpagesize_heap=2m -lmopt -lm
189.lucas:    basepeak=yes
191.fma3d:   -fast -fsimple=1 -xipo=2 -xprefetch_level=3 -xarch=amd64 -xpagesize_heap=2m +FDO
200.sixtrack: -fast -xipo=2 -O -xprefetch_level=3 -xarch=amd64 -xpagesize_heap=2m
               -Qoption ld -M,/usr/lib/ld/map.bssalign +FDO
301.apsi:    -fast -xO4 -xipo=2 -xprefetch_level=3 -xarch=amd64 -xpagesize=2m

```

Portability:

178.galgel: -e -fixed -DSPEC_CPU2000_LP64

Shell Environments:

Stack size set to unlimited via "ulimit -s unlimited"

Kernel Parameters (/etc/system):

autoup=900
tune_t_fsflushr=1

Processes were bound to CPU using submit=pbind

Default BIOS setting was used