



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Sun Microsystems
Sun Ultra 40

SPECfp2000 = 2315

SPECfp_base2000 = 2097

SPEC license #: 6 Tested by: Sun Microsystems, Santa Clara Test date: Feb-2006 Hardware Avail: Jan-2006 Software Avail: Nov-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
168.wupwise	1600	54.7	2923	52.1	3069	
171.swim	3100	67.9	4564	65.6	4725	
172.mgrid	1800	95.0	1895	89.2	2018	
173.applu	2100	91.1	2304	83.5	2515	
177.mesa	1400	84.3	1661	66.7	2099	
178.galgel	2900	82.9	3500	60.7	4778	
179.art	2600	106	2448	101	2566	
183.quake	1300	69.1	1880	63.9	2033	
187.facerec	1900	60.5	3138	44.0	4323	
188.amp	2200	146	1504	143	1542	
189.lucas	2000	152	1318	152	1318	
191.fma3d	2100	112	1881	109	1926	
200.sixtrack	1100	143	772	140	784	
301.apsi	2600	115	2252	105	2479	

Hardware

CPU: AMD Opteron (TM) 254
CPU MHz: 2800
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip
CPU(s) orderable: 1,2 (order by # of chips)
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: 8GB (4x2GB, PC3200 CL3 DDR ECC Registered SDRAM)
Disk Subsystem: SATA,250GB,7200 RPM
Other Hardware: None

Software

Operating System: Solaris 10 3/05 HW2
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 -xautopar -xpad=common:3969 -xipo=2 -xarch=amd64 -xprefetch_level=3 -xpagesize_heap=2m
171.swim: -fast -xpad=common:3969 -xipo=2 -xvector=simd -xprefetch_level=3 -Qoption iropt



CFP2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

Sun Microsystems
Sun Ultra 40

SPECfp2000 = 2315

SPECfp_base2000 = 2097

SPEC license #: 6 Tested by: Sun Microsystems, Santa Clara Test date: Feb-2006 Hardware Avail: Jan-2006 Software Avail: Nov-2005

Notes/Tuning Information (Continued)

```

-Atile:skewp,-Ainline:cs=700 -xarch=amd64 -Qoption ube_ipa -inl_alt
-xpagesize_stack=2m
172.mgrid: -fast -xautopar -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 -xautopar -unroll=5 -stackvar -x04 -xipo=2 -xprefetch_level=3 -xarch=amd64a
-qoption iropt -Rloop_dist -xpagesize_heap=2m
177.mesa: -fast -xautopar -x04 -xipo=2 -Wd,-iropt-prof -xarch=amd64 -xalias_level=strong -xpagesize=2m +FDO
178.galgel: -fast -xcache=64/32/4:1024/64/4 -xarch=sse2a -xcrossfile -xpagesize_heap=2m -xprefetch_level=3 -xvector=simd -xarch=amd64
RM_SOURCES=lapak.f90
EXTRALIBS=-xlic_lib=sunperf
179.art: -fast -xipo=2 -xprefetch -xalias_level=strong -xpagesize=2m
183.quake: -fast -xipo=2 -xprefetch -xalias_level=strong -xpagesize=2m -lmopt -lm +FDO
187.facerec: -fast -x04 -xipo=2 -xprefetch_level=3 -xpagesize=2m
RM_SOURCES=cfftb.f90 cffti.f90 cfftf.f90
EXTRALIBS=-xlic_lib=sunperf
188.ammp: -fast -xcache=64/32/4:1024/64/4 -xarch=sse2a -x04 -xipo=2 -xarch=amd64a -xalias_level=std -xpagesize_heap=2m -lmopt -lm
189.lucas: -fast -Qoption ube_ipa -inl_alt -xipo=2 -xarch=amd64 -xprefetch_level=3
191.fma3d: -fast -xcache=64/32/4:1024/64/4 -xarch=sse2a -unroll=5 -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 -x04 -xipo=2 -xprefetch_level=3 -xarch=amd64a -xpagesize=2m

```

Portability:
178.galgel: -fixed

Shell Environments:
Stack size set to unlimited via "ulimit -s unlimited"

Default BIOS setting was used ; System was tested in 1 CPU configuration.