



CINT2000 Result

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Sun Microsystems
Sun Ultra 40

SPECint2000 = 1848
SPECint_base2000 = 1713

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	1000 2000 3000 4000			
164.gzip	1400	94.3	1485	92.6	1512	[Bar chart showing ratio vs reference time]			
175.vpr	1400	94.0	1489	93.1	1505	[Bar chart showing ratio vs reference time]			
176.gcc	1100	56.1	1959	55.3	1989	[Bar chart showing ratio vs reference time]			
181.mcf	1800	155	1160	152	1183	[Bar chart showing ratio vs reference time]			
186.crafty	1000	58.9	1696	40.4	2474	[Bar chart showing ratio vs reference time]			
197.parser	1800	120	1502	124	1453	[Bar chart showing ratio vs reference time]			
252.eon	1300	47.8	2717	42.9	3028	[Bar chart showing ratio vs reference time]			
253.perlbnk	1800	97.6	1844	91.6	1965	[Bar chart showing ratio vs reference time]			
254.gap	1100	74.2	1483	67.9	1621	[Bar chart showing ratio vs reference time]			
255.vortex	1900	76.6	2480	62.3	3051	[Bar chart showing ratio vs reference time]			
256.bzip2	1500	103	1455	103	1455	[Bar chart showing ratio vs reference time]			
300.twolf	3000	161	1861	155	1931	[Bar chart showing ratio vs reference time]			

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
CXX: CC

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

Integer base flags:

Base tuning for C programs : -fast -xcrossfile -xalias_level=std +FDO ONESTEP=yes
Base tuning for C++ programs: -fast -xcrossfile -xarch=amd64 +FDO ONESTEP=yes

Integer peak flags:

ONESTEP=yes +FDO for all benchmarks

164.gzip: -fast -xpagesize=2m -xcrossfile -M /usr/lib/ld/map.bssalign
175.vpr: -fast -xpagesize=2m -W2,-Ainline:inc=200:cs=500 -M /usr/lib/ld/map.bssalign -lmopt -lm
176.gcc: -fast -xipo=2 -Wd,-iropt-prof -xalias_level=strong -xrestrict
181.mcf: -fast -xpagesize=2m -xcrossfile -M /usr/lib/ld/map.bssalign
186.crafty: -fast -xrestrict -xipo=2 -xprefetch -xarch=amd64 -xpagesize=2m
-M /usr/lib/ld/map.bssalign -Wd,-iropt-prof -W2,-Ashort_ldst:ldld



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Notes/Tuning Information (Continued)

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-W2,-Ainline:rs=50
197.parser: -fast -xpagesize=2m -xipo=2 -W2,-Ainline:inc=200:cs=500 -M /usr/lib/ld/map.bssalign
252.eon: -fast -xipo=2 -qoption CC -iropt-prof -xvector -qoption iropt -Abcopy -xalias_level
        -xarch=amd64 -xrestrict -Qoption ube -xcallee=yes -xregs=frameptr
253.perlbnk: -fast -xcrossfile -M /usr/lib/ld/map.bssalign -lbsdmalloc
254.gap: -fast -xipo=2 -Wd,-iropt-prof -xvector -W2,-Abcopy -lbsdmalloc -xprefetch
        -W2,-Ainline:cp=5:rs=1300:irs=3300:inc=100 -W2,-Arestrict_g
255.vortex: -fast -xipo=2 -Wd,-iropt-prof -lbsdmalloc -xrestrict -xprefetch -M /usr/lib/ld/map.bssalign
256.bzip2: -fast -xpagesize=2m -xcrossfile -xarch=sse2 -Xc -M /usr/lib/ld/map.bssalign -lbsdmalloc
300.twolf: -fast -xipo=2 -Wd,-iropt-prof -xrestrict -M /usr/lib/ld/map.bssalign

```

Portability:

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186.crafty (base): -DSOLARIS_X86
186.crafty (peak): -DSOLARIS_X64
252.eon: -DSPEC_CPU2000_LP64 -DUSE_STRERROR
253.perlbnk: -DSPEC_CPU2000_SOLARIS_X86
254.gap: -DSYS_IS_USG -DSYS_HAS_SIGNAL_PROTO -DSYS_HAS_TIME_PROTO -DSYS_HAS_CALLOC_PROTO

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Shell Environments:

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

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