CINT2000 Result

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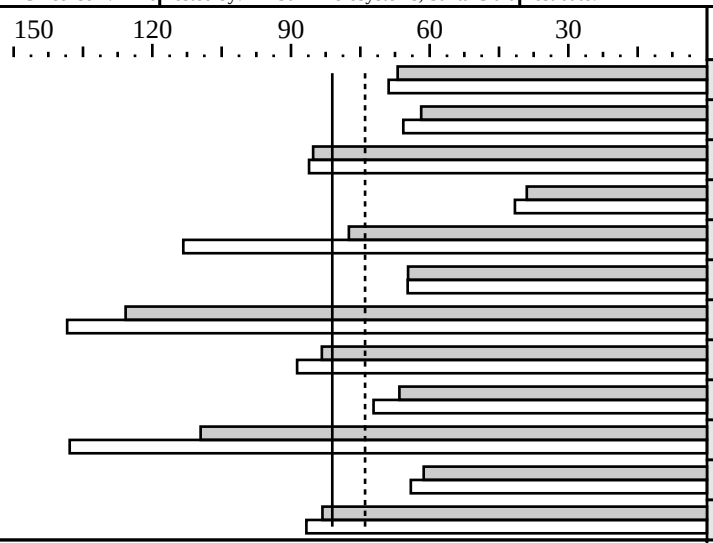
Sun Microsystems
Sun Fire V40z

SPECint_rate2000 = 81.1

SPECint_rate_base2000 = 74.0

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	97.1	66.9	4	94.3	68.9
175.vpr	4	105	61.8	4	98.9	65.7
176.gcc	4	59.9	85.2	4	59.3	86.1
181.mcf	4	214	39.0	4	201	41.6
186.crafty	4	59.9	77.5	4	41.0	113
197.parser	4	129	64.7	4	129	64.8
252.eon	4	48.0	126	4	43.6	138
253.perlbmk	4	100	83.3	4	94.2	88.7
254.gap	4	76.7	66.5	4	70.8	72.1
255.vortex	4	80.5	110	4	63.9	138
256.bzip2	4	114	61.3	4	109	64.1
300.twolf	4	167	83.2	4	161	86.7

Hardware

CPU:	AMD Opteron (TM) 854
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	4 cores, 4 chips, 1 core/chip
CPU(s) orderable:	2,4 (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:	32GB (16x2GB, PC3200 CL3 DDR ECC Registered SDRAM)
Disk Subsystem:	SCSI, 72GB, 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
  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
```

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Notes/Tuning Information (Continued)

```
                -M /usr/lib/ld/map.bssalign -Wd,-iropt-prof -W2,-Ashort_ldst:ldld
                -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.perlbmk:  -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:
 186.crafty:  -DUNIX -DHAS_LONGLONG -DLITTLE_ENDIAN_ARCH
 252.eon:     -DFMAX_IS_DOUBLE -DSPEC_CPU2000_LP64 -DUSE_STRERROR
 253.perlbmk: -DSPEC_CPU2000_SOLARIS_X86
 254.gap:     -DSYS_IS_USG -DSYS_HAS_SIGNAL_PROTO -DSYS_HAS_TIME_PROTO -DSYS_HAS_CALLOC_PROTO

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 CPUs using submit=pbind

Default BIOS setting was used
```