CINT2000 Result

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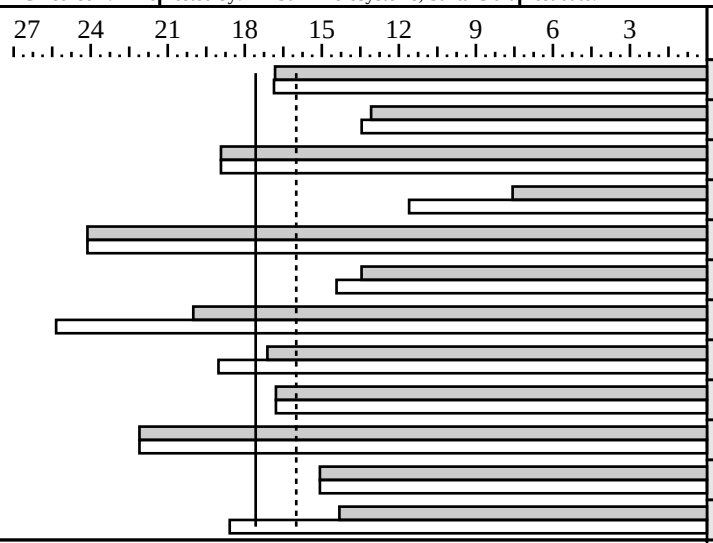
Sun Microsystems
Sun Fire V40z

SPECint_rate2000 = 17.6

SPECint_rate_base2000 = 16.0

SPEC license #: 6 | Tested by: Sun Microsystems, Santa Clara | Test date: Jun-2004 | Hardware Avail: Jul-2004 | Software Avail: May-2004



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	1	96.5	16.8	1	96.3	16.9
175.vpr	1	124	13.1	1	121	13.4
176.gcc	1	67.4	18.9	1	67.4	18.9
181.mcf	1	276	7.57	1	180	11.6
186.crafty	1	48.1	24.1	1	48.1	24.1
197.parser	1	155	13.5	1	145	14.4
252.eon	1	75.4	20.0	1	59.5	25.3
253.perlbmk	1	122	17.1	1	110	19.0
254.gap	1	76.0	16.8	1	76.0	16.8
255.vortex	1	99.7	22.1	1	99.7	22.1
256.bzip2	1	115	15.1	1	115	15.1
300.twolf	1	243	14.3	1	187	18.6

Hardware

CPU:	AMD Opteron (TM) 850
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1,2,4
Parallel:	No
Primary Cache:	64KBI + 64KBD on chip
Secondary Cache:	1024KB (I+D) on chip
L3 Cache:	N/A
Other Cache:	N/A
Memory:	4x1GB, PC2700 CL2.5 DDR SDRAM ECC Registered
Disk Subsystem:	SCSI, 73GB, 10K RPM
Other Hardware:	None

Software

Operating System:	SuSE Linux 8.0 SLES 64 bit (SP3)
Compiler:	PathScale EKO Compiler Suite, Release 1.1 SuSE optional gcc 3.3 (from SLES8 SP3)
File System:	Linux/ext3
System State:	Multi-user, Run level 3

Notes/Tuning Information

```
Feedback-directed optimization is indicated by "+FDO", which means,
unless otherwise noted:
     PASS1: -fb_create fbdata
     PASS2: -fb_opt    fbdata

Compiler: pathcc (PathScale C) unless otherwise noted.
If other compilers are used, they are indicated as:
   g++     Gnu C++
   pathCC  PathScale C++

Integer base tuning:
  C programs:       pathcc -O3 -ipa +FDO
  C++ programs:     pathCC -Ofast +FDO

Peak Tuning:
164.gzip:     -O3 -ipa -WOPT:val=0 -CG:p2align_freq=10000 +FDO
175.vpr:      -O2 -ipa -OPT:alias=disjoint -LNO:prefetch_ahead=2
              -CG:p2align_freq=500000 -INLINE:aggressive=on
              -IPA:space=300:plimit=10000:callee_limit=5000:linear=on
```

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Notes/Tuning Information (Continued)

```
                +FDO
    176.gcc:    basepeak = true
    181.mcf:    -O3 -static -OPT:Ofast -m32 +FDO
    186.crafty: basepeak = true
    197.parser: -O3 -ipa -m32 -IPA:ctype=on +FDO
    252.eon:    g++ -O3 -msse2 -funroll-all-loops -ffast-math
                -finline-limit=5000
                Uses g++ style Feedback Directed Optimization:
                   PASS1: -fprofile-arcs   PASS2: -fbranch-probabilities
                Previous feedback is removed prior to compiles, using:
                   fdo_pre0 = rm -f *.da *.life analyz_prbrob.out
    253.perlbmk: -O3 -ipa -TENV:X=3 -IPA:min_hotness=5:plimit=20000 +FDO
    254.gap:    basepeak=yes
    255.vortex: basepeak=yes
    256.bzip2:  basepeak=yes
    300.twolf:  -O2 -OPT:unroll_times=8:unroll_size=256:alias=disjoint:Ofast
                -CG:gcm=off:p2align_freq=100000 -TENV:X=4 +FDO -m32

    Portability:
    186.crafty: -DLINUX_i386
    252.eon:    -DHAS_ERRLIST  -DSPEC_CPU2000_LP64 -lm
                srcalt = fmax_errno
    253.perlbmk: -DSPEC_CPU2000_LINUX_I386 -DSPEC_CPU2000_NEED_BOOL
                -DSPEC_CPU2000_GLIBC22 -DSPEC_CPU2000_LP64
    254.gap:    -DSYS_IS_USG -DSYS_HAS_IOCTL_PROTO -DSYS_HAS_TIME_PROTO
                -DSYS_HAS_SIGNAL_PROTO -DSYS_HAS_ANSI -DSYS_HAS_CALLOC_PROTO
                -DSPEC_CPU2000_LP64
    255.vortex: -DSPEC_CPU2000_LP64

    Notes:
         BIOS build 2.1.0.9E, default setting was used.
         Only one CPU was present in the system, other CPUs were physically removed.
```