



CINT2000 Result

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Sun Microsystems
Sun Fire V20z

SPECint2000 = 1521
SPECint_base2000 = 1382

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	96.6	1449	96.3	1454	
175.vpr	1400	124	1126	121	1158	
176.gcc	1100	67.3	1634	67.3	1634	
181.mcf	1800	275	654	180	1000	
186.crafty	1000	48.1	2080	48.1	2080	
197.parser	1800	155	1160	145	1244	
252.eon	1300	75.4	1725	58.6	2220	
253.perlbnk	1800	122	1476	110	1639	
254.gap	1100	76.0	1448	76.0	1448	
255.vortex	1900	98.6	1928	98.6	1928	
256.bzip2	1500	115	1300	115	1300	
300.twolf	3000	241	1245	185	1626	

Hardware

CPU: AMD Opteron (TM) 250
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 1,2
 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
```



CINT2000 Result

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Sun Microsystems
Sun Fire V20z

SPECint2000 =	1521
SPECint_base2000 =	1382

SPEC license #:	6	Tested by:	Sun Microsystems, Santa Clara	Test date:	Jun-2004	Hardware Avail:	Jul-2004	Software Avail:	May-2004
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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_prbprob.out
253.perlbnk:  -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.perlbnk:  -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.
Second CPU was physically removed from the system.