



# CINT2000 Result

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Sun Microsystems  
Sun Fire V20z

SPECint2000 = 1746  
SPECint\_base2000 = 1569

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	90.4	1548	90.8	1542	
175.vpr	1400	113	1237	111	1265	
176.gcc	1100	61.6	1787	62.0	1774	
181.mcf	1800	248	726	155	1163	
186.crafty	1000	45.4	2205	44.4	2254	
197.parser	1800	152	1185	125	1435	
252.eon	1300	53.5	2429	49.2	2640	
253.perlbnk	1800	105	1716	93.2	1932	
254.gap	1100	67.1	1640	65.1	1689	
255.vortex	1900	75.4	2520	68.1	2790	
256.bzip2	1500	105	1426	105	1426	
300.twolf	3000	215	1398	167	1800	

### Hardware

CPU: AMD Opteron (TM) 252  
 CPU MHz: 2600  
 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: 4GB (4x1GB, PC3200 CL3 DDR)  
 Disk Subsystem: SCSI, 73GB, 10K RPM  
 Other Hardware: None

### Software

Operating System: SUSE LINUX Enterprise Server 9  
 Compiler: PathScale EKOPath Compiler Suite, Release 2.0  
 File System: Linux/ext3  
 System State: Multi-user, Run level 3

## Notes/Tuning Information

+FDO: PASS1= -fb\_create fbdata PASS2= -fb\_opt fbdata

Baseline optimization flags:

C programs: -Ofast +FDO  
 C++ programs: -Ofast +FDO

Portability Flags and Alternate Source:

176.gcc : srcalt=64bitgcc  
 186.crafty : -DLINUX\_i386  
 252.eon : -DHAS\_ERRLIST -DSPEC\_CPU2000\_LP64 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

Peak Tuning:

164.gzip : -O3 -ipa -m3dnow -WOPT:val=0 +FDO



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## Notes/Tuning Information (Continued)

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175.vpr      : -O2 -ipa -OPT:alias=disjoint -CG:p2align_freq=500000 -INLINE:aggressive=on
              -IPA:space=300:plimit=10000:callee_limit=5000:linear=on +FDO
176.gcc      : -O3 -ipa -OPT:goto=off +FDO
181.mcf      : -O3 -ipa -IPA:field_reorder=on -m32 +FDO
186.crafty   : -O3 -OPT:goto=off +FDO
197.parser   : -O3 -ipa -m32 -IPA:ctype=on +FDO
252.eon      : -Ofast -CG:gcm=off:p2align_freq=1:prefetch=off -OPT:treeheight=on
              -TENV:X=4:frame_pointer=off -fno-exceptions
              -LNO:fu=10:full_unroll_outer=on -IPA:plimit=4000 +FDO
253.perlbmk  : -Ofast -OPT:transform_to_memlib=off -IPA:plimit=10000 +FDO
254.gap      : -Ofast -WOPT:aggstr=0 +FDO
255.vortex   : -Ofast -OPT:goto=off -IPA:plimit=1800 -CG:p2align=on +FDO
256.bzip2    : basepeak = true
300.twolf    : -O2 -CG:gcm=off:p2align_freq=100000
              -OPT:Ofast:unroll_times_max=8:unroll_size=256:alias=disjoint
              -WOPT:mem_opnds=on -m32 +FDO

```

Note: The config file requested the vortex "closed\_files" srcalt, but that srcalt was not in fact installed, so it was not used.  
Default BIOS setting was used. Only one CPU was present in the system.