



# CINT2000 Result

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Sun Microsystems  
Sun Fire X2100

SPECint2000 = 2018  
SPECint\_base2000 = 1792

SPEC license #: 6 Tested by: Sun Microsystems, Santa Clara Test date: Mar-2006 Hardware Avail: May-2006 Software Avail: Nov-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	77.6	1803	77.5	1806	
175.vpr	1400	102	1374	97.4	1437	
176.gcc	1100	54.2	2029	54.2	2029	
181.mcf	1800	248	725	154	1168	
186.crafty	1000	37.7	2651	36.7	2727	
197.parser	1800	134	1344	105	1708	
252.eon	1300	42.1	3087	36.8	3530	
253.perlbnk	1800	89.8	2005	78.6	2290	
254.gap	1100	58.5	1881	57.8	1902	
255.vortex	1900	65.0	2922	60.6	3138	
256.bzip2	1500	94.2	1592	94.2	1592	
300.twolf	3000	192	1561	145	2068	

### Hardware

CPU: AMD Opteron (TM) 156  
 CPU MHz: 3000  
 FPU: Integrated  
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip  
 CPU(s) orderable: 1  
 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: 4GB (4x1GB, PC3200 CL3 DDR ECC SDRAM)  
 Disk Subsystem: SATA,80GB,10K RPM  
 Other Hardware: None

### Software

Operating System: SUSE LINUX Enterprise Server 9 SP3 (x86\_64)  
 Compiler: PathScale EKOPath(TM) Compiler Suite, Version 2.3  
 File System: ufs  
 System State: Multi-user

## Notes/Tuning Information

#### Portability flags:

```
186.crafty: -DLINUX_i386
252.eon: -DHAS_ERRLIST -DSPEC_CPU2000_LP64
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_CALLOC_PROTO -DSPEC_CPU2000_LP64
255.vortex: -DSPEC_CPU2000_LP64
```

#### Feedback Optimization:

```
+FDO: PASS1=-fb_create fbdata PASS2=-fb_opt fbdata
```

#### Baseline Optimization Flags:

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

#### Peak Tuning Flags:

```
164.gzip: -O3 -ipa -WOPT:val=0 -OPT:unroll_size=0 +FDO
175.vpr: -O3 -ipa -m32 +FDO
176.gcc: -O3 -IPA:plimit=10000 -LNO:opt=0 -OPT:goto=off +FDO
```



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## Notes/Tuning Information (Continued)

```
181.mcf: -O3 -ipa -IPA:field_reorder=on -m32 +FDO
186.crafty: -Ofast -CG:local_fwd_sched=on -LNO:opt=0 -WOPT:val=0 +FDO
197.parser: -O3 -ipa -m32 -IPA:ctype=on +FDO
252.eon: -Ofast -CG:gcm=off:p2align_freq=1:prefetch=off -IPA:plimit=4000
-OPT:treeheight=on -TENV:X=4:frame_pointer=off -fno-exceptions
-LNO:fu=10:full_unroll_outer=on -GRA:optimize_boundary=on +FDO
253.perlbnk: -O2 -ipa -OPT:Ofast:transform_to_memlib=off
-fno-math-errno -IPA:plimit=10000 +FDO
254.gap: -Ofast -IPA:min_hotness=5 -OPT:alias=disjoint -CG:movnti=1 +FDO
255.vortex: -Ofast -OPT:goto=off +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
```

Default BIOS settings was used.