



# CINT2000 Result

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## Advanced Micro Devices

Pogo Linux PerformanceWare 3566, AMD Opteron (TM) 865

SPECint\_rate2000 = 55.8

SPECint\_rate\_base2000 = 50.1

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Apr-2005 | Hardware Avail: May-2005 | Software Avail: May-2005

90 80 70 60 50 40 30 20 10							Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
							164.gzip	4	130	50.1	4	130	49.9
							175.vpr	4	168	38.7	4	163	39.8
							176.gcc	4	96.1	53.1	4	88.3	57.8
							181.mcf	4	387	21.6	4	241	34.7
							186.crafty	4	64.9	71.5	4	63.4	73.2
							197.parser	4	217	38.5	4	179	46.7
							252.eon	4	76.6	78.7	4	69.9	86.3
							253.perlbnk	4	149	56.0	4	134	62.3
							254.gap	4	97.9	52.2	4	96.8	52.7
							255.vortex	4	114	77.7	4	104	85.1
							256.bzip2	4	150	46.5	4	150	46.5
							300.twolf	4	282	49.3	4	232	60.0

### Hardware

CPU: AMD Opteron (TM) 865  
 CPU MHz: 1800  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip  
 CPU(s) orderable: 1-4  
 Parallel: No  
 Primary Cache: 64KBI + 64KBD/core  
 Secondary Cache: 1024KB (I+D)/core  
 L3 Cache: N/A  
 Other Cache: N/A  
 Memory: 8x1024 MB PC3200 CL3.0 ECC Reg  
 Disk Subsystem: SCSI, Seagate Cheetah Ultra320  
 ST373307LC, 10000 RPM  
 Other Hardware: None

### Software

Operating System: SuSE Linux Enterprise Server 9 for AMD64  
 SP1, kernel-smp-2.6.5-7.151.x86\_64.rpm  
 Compiler: PathScale EKOPath Compiler Suite, Release 2.0  
 File System: Linux/ext3  
 System State: Multi-user, run level 3

## Notes/Tuning Information

Tested by Advanced Micro Devices

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

Baseline optimization flags:

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

Portability Flags:

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 srcalt closed\_files



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## Notes/Tuning Information (Continued)

Peak Tuning:

```
164.gzip: -O3 -ipa -m3dnow -WOPT:val=0 +FDO
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.perlbnk: -Ofast -OPT:transform_to_memlib=off -IPA:plimit=10000
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
```

Bios Rev 2.33.1.1

All memory slots populated on all CPU(s).

Taskset utility used to bind CPU(s) to processes.