# CINT2000 Result

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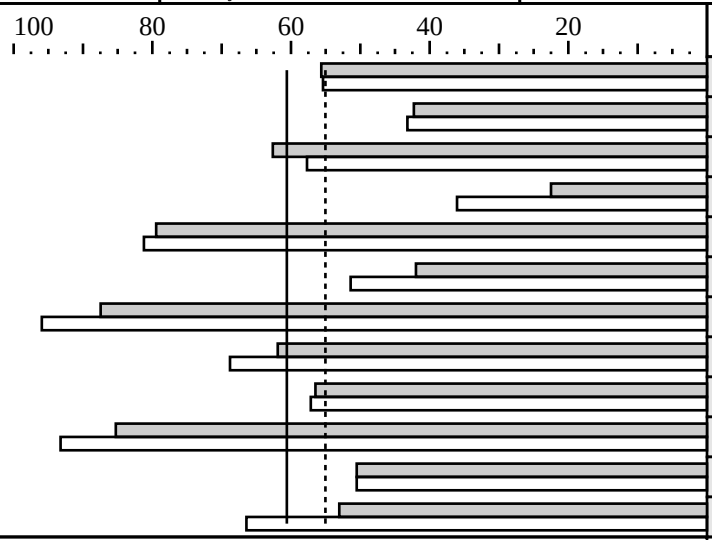
## Advanced Micro Devices

Pogo Linux PerformanceWare 3566, AMD Opteron (TM) 870

SPECint_rate2000 = 60.6

SPECint_rate_base2000 = 55.0

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




| Benchmark | Base Copies | Base Runtime | Base Ratio | Copies | Runtime | Ratio |
|---|---|---|---|---|---|---|
| 164.gzip | 4 | 117 | 55.6 | 4 | 117 | 55.4 |
| 175.vpr | 4 | 154 | 42.3 | 4 | 150 | 43.2 |
| 176.gcc | 4 | 81.5 | 62.6 | 4 | 88.5 | 57.7 |
| 181.mcf | 4 | 371 | 22.5 | 4 | 232 | 36.1 |
| 186.crafty | 4 | 58.4 | 79.4 | 4 | 57.1 | 81.2 |
| 197.parser | 4 | 199 | 42.0 | 4 | 162 | 51.4 |
| 252.eon | 4 | 69.0 | 87.5 | 4 | 62.9 | 95.9 |
| 253.perlbmk | 4 | 135 | 61.9 | 4 | 121 | 68.8 |
| 254.gap | 4 | 90.4 | 56.5 | 4 | 89.3 | 57.1 |
| 255.vortex | 4 | 103 | 85.3 | 4 | 94.6 | 93.2 |
| 256.bzip2 | 4 | 138 | 50.5 | 4 | 138 | 50.5 |
| 300.twolf | 4 | 262 | 53.0 | 4 | 210 | 66.4 |

### Hardware

| | |
|---|---|
| CPU: | AMD Opteron (TM) 870 |
| CPU MHz: | 2000 |
| 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.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 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.perlbmk: -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.
```