



CINT2000 Result

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Rackable Systems
C1000-A03-25F26 (AMD Opteron 2218)

SPECint_rate2000 = 78.0
SPECint_rate_base2000 = 70.7

SPEC license #: 64 Tested by: Rackable Systems Test date: Sep-2006 Hardware Avail: Aug-2006 Software Avail: Mar-2006

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	89.1	72.9	4	88.9	73.1
175.vpr	4	120	54.1	4	114	56.9
176.gcc	4	64.0	79.8	4	71.5	71.3
181.mcf	4	323	25.9	4	193	43.3
186.crafty	4	44.3	105	4	44.3	105
197.parser	4	157	53.1	4	122	68.3
252.eon	4	47.2	128	4	42.6	142
253.perlbnk	4	103	81.3	4	93.8	89.1
254.gap	4	68.8	74.2	4	70.3	72.6
255.vortex	4	77.5	114	4	74.2	119
256.bzip2	4	109	64.1	4	109	64.1
300.twolf	4	229	60.8	4	175	79.6

Hardware

CPU: AMD Opteron 2218
 CPU MHz: 2600
 FPU: Integrated
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip
 CPU(s) orderable: 1,2 chip(s)
 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: 4x1024MB, DDR2 5300
 Disk Subsystem: 1 x 250GB SATA
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux 4 Update 2 x86_64
 Compiler: PathScale EKOPATH(TM) Compiler Suite, Release 2.4 (for C and C++)
 File System: Linux/ext3
 System State: Multi-user, run level 3

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_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
181.mcf: -O3 -ipa -IPA:field_reorder=on -m32 +FDO
```



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Notes/Tuning Information (Continued)

```
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
Taskset utility used to bind process to CPU(s)
```