CINT2000 Result

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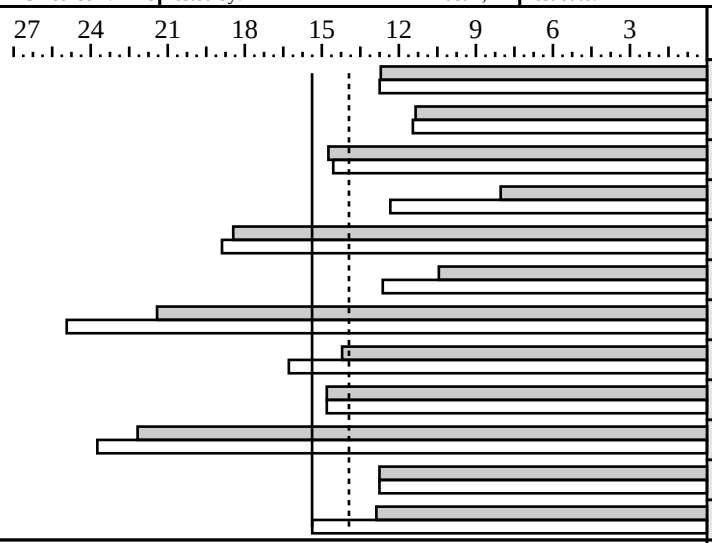
Advanced Micro Devices

Tyan Thunder K9HM (S3992), AMD Opteron (TM) 2210

SPECint_rate2000 = 15.4

SPECint_rate_base2000 = 13.9

SPEC license #: 49 | Tested by: AMD Austin, TX | Test date: Jul-2006 | Hardware Avail: Sep-2006 | Software Avail: Jan-2006



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	1	128	12.7	1	127	12.7
175.vpr	1	143	11.3	1	142	11.5
176.gcc	1	86.6	14.7	1	87.7	14.6
181.mcf	1	260	8.03	1	169	12.3
186.crafty	1	62.9	18.4	1	61.4	18.9
197.parser	1	200	10.4	1	165	12.6
252.eon	1	70.4	21.4	1	60.5	24.9
253.perlbmk	1	147	14.2	1	128	16.3
254.gap	1	86.2	14.8	1	86.2	14.8
255.vortex	1	99.4	22.2	1	92.8	23.7
256.bzip2	1	136	12.8	1	136	12.8
300.twolf	1	270	12.9	1	226	15.4

Hardware

CPU:	AMD Opteron (TM) 2210
CPU MHz:	1800
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip
CPU(s) orderable:	1,2
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:	4x512MB, DDR2-667 CL4 ECC Reg
Disk Subsystem:	IDE, 120 GB
Other Hardware:	None

Software

Operating System:	SuSE Linux Enterprise Server 9 SP3 (64-bit)
Compiler:	PathScale EKOPath(TM) Compiler Suite, Release 2.3
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:
  186.crafty:  -DLINUX_i386
  252.eon:     -DHAS_ERRLIST -DSPEC_CPU2000_LP64
  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_CALLOC_PROTO -DSPEC_CPU2000_LP64
  255.vortex:  -DSPEC_CPU2000_LP64

Peak Tuning:
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.perlbmk: -O2 -ipa -OPT:Ofast:transform_to_memlib=off
             -fno-math-errno -IPA:plimit=10000 +FDO
255.vortex:  -Ofast -OPT:goto=off -CG:p2align=on
             -GRA:optimize_boundary=on -IPA:min_hotness=120 +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

system can be built using a standard ATX case and a Zippy 700W PSL-6701P power supply
Half memory slots populated on CPU in dual channel configuration
```