CINT2000 Result

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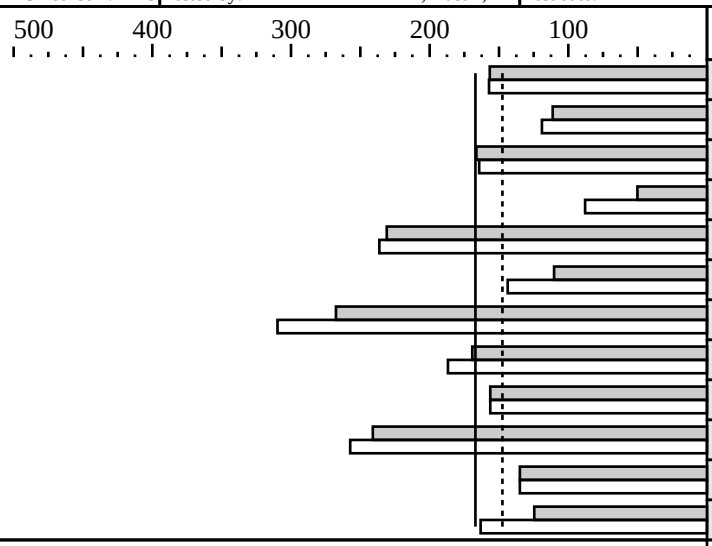
AMD

Tyan n4250QE (S4985), Opteron (TM) 8220

SPECint_rate2000 = 167

SPECint_rate_base2000 = 148

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Jan-2007 | Hardware Avail: Feb-2007 | Software Avail: Aug-2005



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	8	82.9	157	8	82.6	157
175.vpr	8	117	111	8	109	119
176.gcc	8	61.4	166	8	62.1	164
181.mcf	8	333	50.2	8	190	87.9
186.crafty	8	40.2	231	8	39.3	236
197.parser	8	151	110	8	116	144
252.eon	8	45.1	268	8	38.9	310
253.perlbmk	8	98.7	169	8	89.4	187
254.gap	8	65.3	156	8	65.3	156
255.vortex	8	73.2	241	8	68.5	257
256.bzip2	8	103	135	8	103	135
300.twolf	8	223	125	8	171	163

Hardware

CPU:	AMD Opteron (TM) 8220
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	8 cores, 4 chips, 2 cores/chip
CPU(s) orderable:	1,2,4
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:	16 GB (16x1GB, DDR2-667 CL4 ECC Reg Dual Rank)
Disk Subsystem:	SATA, 74GB
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

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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:
   186.crafty:  -DLINUX_i386
   252.eon:     -DHAS_ERRLIST -DSPEC_CPU2000_LP64
   253.perlbmk: -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

 Peak Tuning:
 164.gzip:    -O3 -ipa -WOPT:val=0 -OPT:unroll_size=0 +FDO
 175.vpr:     -O3 -ipa -m32 +FDO
```

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Notes/Tuning Information (Continued)

```
176.gcc:     -O3 -IPA:plimit=10000 -LNO:opt=0 -OPT:goto=off +FDO
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 with a 700W Zippy Power Supply
All memory slots filled on all used CPU sockets
taskset utility used to bind CPU(s) to processes.
```