



CINT2000 Result

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Advanced Micro Devices

TYAN Thunder K8QSD Pro (S4882-D), AMD Opteron (TM) 280

SPECint_rate2000 = 71.3

SPECint_rate_base2000 = 63.7

SPEC license #: 49 Tested by: AMD, Austin TX Test date: Sep-2005 Hardware Avail: Sep-2005 Software Avail: Aug-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	105	61.7	4	105	61.8
175.vpr	4	127	51.2	4	122	53.4
176.gcc	4	74.2	68.8	4	73.8	69.1
181.mcf	4	310	26.9	4	195	42.7
186.crafty	4	50.9	91.2	4	49.8	93.1
197.parser	4	173	48.3	4	140	59.8
252.eon	4	56.5	107	4	48.9	123
253.perlbnk	4	119	70.4	4	108	77.7
254.gap	4	77.8	65.6	4	75.3	67.8
255.vortex	4	86.1	102	4	76.6	115
256.bzip2	4	120	58.2	4	120	58.2
300.twolf	4	236	58.9	4	190	73.2

Hardware

CPU: AMD Opteron (TM) 280
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip
 CPU(s) orderable: 1-2
 Parallel: No
 Primary Cache: 64KBI + 64KBD/core
 Secondary Cache: 1024KB (I+D)/core
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 8x512 MB, DDR400 ECC Reg CL2
 Disk Subsystem: SATA, Western Digital WD740GD, 74 GB 10000 RPM
 Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Server 9 (SP2) for AMD64
 Compiler: PathScale EKOPath(TM) Compiler Suite, Release 2.2.1
 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:

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_CALLOC_PROTO -DSPEC_CPU2000_LP64
 255.vortex: -DSPEC_CPU2000_LP64 srcalt closed_files

Peak Tuning:

164.gzip: -O3 -ipa -WOPT:val=0 -OPT:unroll_size=0 +FDO



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Notes/Tuning Information (Continued)

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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
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

```

The system under test can be built using a SSI MEB case and a Zippy Technology Corp. PSL-6701P 12V 700W power supply. Taskset utility used to bind CPU(s) to processes. All memory slots populated on all CPU(s). BIOS Rev E 1.03