



CINT2000 Result

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Advanced Micro Devices

Tyan Thunder K8QS Pro,(S4882), AMD Opteron (TM) 850

SPECint_rate2000 = 37.2

SPECint_rate_base2000 = 33.8

SPEC license #: 49 | Tested by: AMD, Austin, TX | Test date: Oct-2004 | Hardware Avail: Jul-2004 | Software Avail: Aug-2004

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	2	94.8	34.3	2	94.5	34.4
175.vpr	2	117	27.8	2	115	28.2
176.gcc	2	66.1	38.6	2	66.1	38.6
181.mcf	2	250	16.7	2	155	27.0
186.crafty	2	47.8	48.5	2	47.6	48.7
197.parser	2	152	27.5	2	139	30.0
252.eon	2	63.2	47.7	2	52.6	57.4
253.perlbnk	2	118	35.2	2	111	37.7
254.gap	2	72.3	35.3	2	72.3	35.3
255.vortex	2	92.5	47.6	2	85.9	51.3
256.bzip2	2	112	31.2	2	112	31.2
300.twolf	2	225	31.0	2	176	39.5

Hardware

CPU: AMD Opteron (TM) 850
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 2 cores, 2 chips, 1 core/chip
 CPU(s) orderable: 1-4
 Parallel: No
 Primary Cache: 64KBI + 64KBD on chip
 Secondary Cache: 1024KB(I+D) on chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 8x512 MB PC3200 CL3.0 ECC Reg
 Disk Subsystem: SCSI, Seagate Cheetah ST336753LW, U320, 15K rpm
 Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Sever for AMD64 (SP3)
 Compiler: PathScale EKO Compiler Suite, Release 1.3
 File System: Linux/ext3
 System State: Multi-user SuSE Run level 3

Notes/Tuning Information

+FDO: PASS1= -fb_create fbdata PASS2= -fb_opt fbdata

Baseline optimization flags:

C programs: -O3 -ipa +FDO
 C++ programs: -Ofast +FDO

Portability Flags:

175.vpr: -DSPEC_CPU2000
 181.mcf: -DWANT_STDC_PROTO
 186.crafty: -DLINUX_i386 -DSPEC_CPU2000
 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_SIGNAL_PROTO -DSYS_HAS_ANSI -DSYS_HAS_CALLOC_PROTO
 -DSPEC_CPU2000_LP64
 255.vortex: -DSPEC_CPU2000_LP64
 300.twolf: -DSPEC_CPU2000 -DHAVE_SIGNED_CHAR



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Notes/Tuning Information (Continued)

Peak Tuning:

```

164.gzip: -Ofast +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: basepeak = true
181.mcf: -O3 -ipa -IPA:field_reorder=on -m32 +FDO
186.crafty: -Ofast +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=1
        +FDO -IPA:plimit=4000:pu_reorder=1
253.perlbnk: -O3 -ipa -TENV:X=3 +FDO -IPA:min_hotness=5:plimit=20000
254.gap: basepeak = true
255.vortex: -Ofast -IPA:space=70:plimit=3000
        -OPT:goto=off:unroll_analysis=off:unroll_size=0:unroll_times_max=8
        -LNO:opt=0 -TENV:X=4
        +FDO
256.bzip2: basepeak = true
300.twolf: -O2 -OPT:unroll_times_max=8:unroll_size=256:alias=disjoint:Ofast
        -CG:gcm=off:p2align_freq=100000 -WOPT:mem_opnds=on -m32

```

BIOS rev. 1.00

Taskset utility used to bind CPU(s) to processes

All memory slots populated on CPU0 and CPU1

The tested system can be assembled using an SSI MEB footprint case, such as the CCSI RC0352 3U rackmount case, and a Tyan recommended 660W EPS-12V power supply, such as the Enermax 660W power supply (PEG851AX-VH)