



CINT2000 Result

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IBM Corporation

AMD Opteron LS41 for IBM BladeCenter (AMD Opteron (TM) 8216)

SPECint2000 = 1560

SPECint_base2000 = 1366

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Aug-2006 | Hardware Avail: Aug-2006 | Software Avail: Mar-2006

| Benchmark | Reference Time | Base Runtime | Base Ratio | Runtime | Ratio | |
|-------------|----------------|--------------|------------|---------|-------|--|
| 164.gzip | 1400 | 96.4 | 1452 | 96.5 | 1451 | |
| 175.vpr | 1400 | 132 | 1062 | 124 | 1133 | |
| 176.gcc | 1100 | 70.9 | 1552 | 71.4 | 1540 | |
| 181.mcf | 1800 | 357 | 505 | 194 | 926 | |
| 186.crafty | 1000 | 49.5 | 2021 | 49.3 | 2029 | |
| 197.parser | 1800 | 184 | 980 | 140 | 1289 | |
| 252.eon | 1300 | 51.3 | 2535 | 45.7 | 2843 | |
| 253.perlbnk | 1800 | 115 | 1563 | 105 | 1717 | |
| 254.gap | 1100 | 75.2 | 1463 | 75.2 | 1463 | |
| 255.vortex | 1900 | 88.0 | 2159 | 82.3 | 2310 | |
| 256.bzip2 | 1500 | 118 | 1267 | 118 | 1267 | |
| 300.twolf | 3000 | 270 | 1110 | 184 | 1627 | |

Hardware

CPU: AMD Opteron 8216
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 8 cores, 4 chips, 2 cores/chip
 CPU(s) orderable: 1,2,3,4
 Parallel: No
 Primary Cache: 64KBI + 64KBD on chip
 Secondary Cache: 1024KB (I+D) on chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 16x2GB, PC2-5300
 Disk Subsystem: SAS, 36GB 10K RPM
 Other Hardware: None

Software

Operating System: SuSE Linux 9.0 SP3 SLES 64 bit Kernel 2.6.5-7.244-smp
 Compiler: PathScale EKO Compiler Suite, Release 2.4
 PathScale EKOPath(TM) Compiler Suite, Release 2.4
 File System: Linux/reiserfs
 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
 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

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



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Notes/Tuning Information (Continued)

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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
254.gap: basepeak = true
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

```