



CINT2000 Result

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IBM Corporation
IBM eServer e326 (AMD Opteron (TM) 270)

SPECint_rate2000 = **59.1**
SPECint_rate_base2000 = **53.2**

SPEC license #: 11 | Tested by: IBM, Inc. | Test date: Jun-2005 | Hardware Avail: Apr-2005 | Software Avail: Apr-2005

| Benchmark | Base Copies | Base Runtime | Base Ratio | Copies | Runtime | Ratio |
|-------------|-------------|--------------|------------|--------|---------|-------|
| 164.gzip | 4 | 116 | 55.9 | 4 | 116 | 55.9 |
| 175.vpr | 4 | 168 | 38.6 | 4 | 165 | 39.4 |
| 176.gcc | 4 | 82.0 | 62.2 | 4 | 81.1 | 63.0 |
| 181.mcf | 4 | 448 | 18.6 | 4 | 270 | 30.9 |
| 186.crafty | 4 | 58.7 | 79.0 | 4 | 59.4 | 78.1 |
| 197.parser | 4 | 200 | 41.8 | 4 | 164 | 51.0 |
| 252.eon | 4 | 69.2 | 87.2 | 4 | 62.1 | 97.2 |
| 253.perlbnk | 4 | 138 | 60.7 | 4 | 121 | 69.1 |
| 254.gap | 4 | 88.5 | 57.7 | 4 | 89.0 | 57.4 |
| 255.vortex | 4 | 107 | 82.5 | 4 | 98.3 | 89.7 |
| 256.bzip2 | 4 | 146 | 47.7 | 4 | 146 | 47.7 |
| 300.twolf | 4 | 270 | 51.6 | 4 | 217 | 64.1 |

Hardware

CPU: AMD Opteron 270
CPU MHz: 2000
FPU: Integrated
CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip
CPU(s) orderable: 1,2
Parallel: No
Primary Cache: 64KBI + 64KBD on chip
Secondary Cache: 1024KB (I+D) on chip
L3 Cache: N/A
Other Cache: N/A
Memory: 8 x 1GB, DDR400
Disk Subsystem: SCSI, 36GB 10K RPM
Other Hardware: None

Software

Operating System: SuSE Linux 9.0 SP1 SLES 64 bit Kernel 2.6.5-7.151-smp (SP1)
Compiler: PathScale EKOPath(TM) Compiler Suite, Release 2.1
File System: Linux/reiserfs
System State: Multi-user, run level 3

Notes/Tuning Information

Tested by IBM, Inc.

+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_SIGNAL_PROTO -DSYS_HAS_ANSI -DSYS_HAS_CALLOC_PROTO
-DSPEC_CPU2000_LP64
255.vortex: -DSPEC_CPU2000_LP64 srcalt closed_files

Peak Tuning:



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Notes/Tuning Information (Continued)

```
164.gzip: basepeak = true
175.vpr: -O2 -ipa -OPT:alias=disjoint -CG:p2align_freq=500000
        -INLINE:aggressive=on -IPA:plimit=10000:callee_limit=5000
        +FDO
176.gcc: -O3 -ipa -OPT:goto=off +FDO
181.mcf: -O3 -ipa -IPA:field_reorder=on -m32 +FDO
186.crafty: -O3 -OPT:goto=off +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=on -IPA:plimit=4000 +FDO
253.perlbnk: -O2 -ipa -OPT:Ofast:transform_to_memlib=off
        -fno-math-errno -IPA:plimit=10000 +FDO
254.gap: -Ofast -WOPT:aggstr=off +FDO
255.vortex: -Ofast -OPT:goto=off -IPA:plimit=1800 -CG:p2align=on
        +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
```