



CINT2000 Result

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IBM Corporation
IBM BladeCenter LS41 (AMD Opteron 8220)

SPECint2000 = 1826
SPECint_base2000 = 1612

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Feb-2007 | Hardware Avail: Feb-2007 | Software Avail: Oct-2006

| Benchmark | Reference Time | Base Runtime | Base Ratio | Runtime | Ratio | |
|-------------|----------------|--------------|------------|---------|-------|--|
| 164.gzip | 1400 | 83.5 | 1677 | 83.1 | 1684 | |
| 175.vpr | 1400 | 113 | 1243 | 105 | 1336 | |
| 176.gcc | 1100 | 59.2 | 1860 | 60.9 | 1805 | |
| 181.mcf | 1800 | 302 | 596 | 169 | 1067 | |
| 186.crafty | 1000 | 42.4 | 2358 | 42.2 | 2372 | |
| 197.parser | 1800 | 148 | 1217 | 121 | 1485 | |
| 252.eon | 1300 | 43.6 | 2984 | 39.1 | 3321 | |
| 253.perlbmk | 1800 | 103 | 1748 | 90.3 | 1993 | |
| 254.gap | 1100 | 62.9 | 1748 | 61.6 | 1786 | |
| 255.vortex | 1900 | 76.0 | 2500 | 69.1 | 2750 | |
| 256.bzip2 | 1500 | 102 | 1477 | 102 | 1477 | |
| 300.twolf | 3000 | 217 | 1384 | 160 | 1875 | |

Hardware

CPU: AMD Opteron 8220
 CPU MHz: 2800
 FPU: Integrated
 CPU(s) enabled: 8 cores, 4 chips, 2 cores/chip
 CPU(s) orderable: 1,2,3,4 chips
 Parallel: No
 Primary Cache: 64 KB I + 64 KB D on chip (per core)
 Secondary Cache: 1 MB I+D on chip (per core)
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 32 GB (15x2 GB PC2-5300)
 Disk Subsystem: 1x73 GB 10K SAS
 Other Hardware:

Software

Operating System: SuSE Linux Enterprise Server 9 (x86_64) SP 3
 SuSE kernel 2.6.5-7.244-default
 Compiler: PathScale EKOPATH(TM) Compiler Suite, Release 2.5
 File System: Linux/ext2
 System State: Multi-user run level 3

Notes/Tuning Information

```
+FDO: PASS1= -fb_create fbdata PASS2= -fb_opt fbdata
Base tuning for C programs: -Ofast +FDO
Base tuning for 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
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
```



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Notes/Tuning Information (Continued)

```
-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
```