CINT2000 Result

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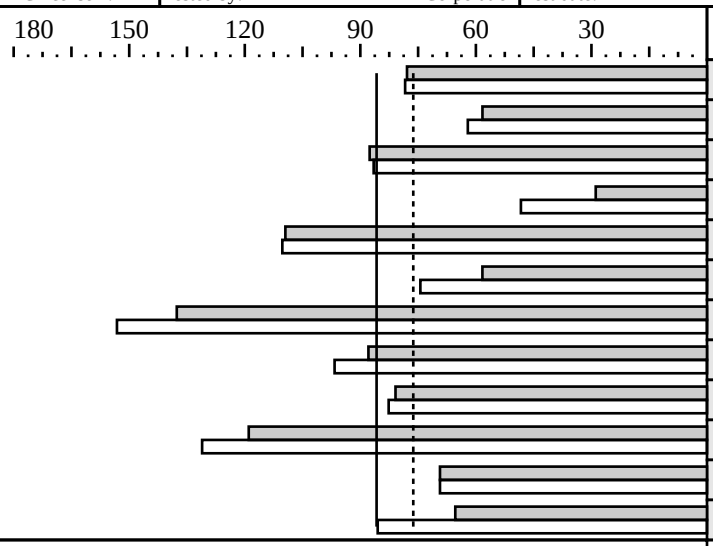
IBM Corporation

IBM System X 3655 (AMD Opteron 2220)

SPECint_rate2000 = 85.8

SPECint_rate_base2000 = 76.3

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	83.4	77.9	4	82.9	78.4
175.vpr	4	111	58.3	4	105	62.1
176.gcc	4	58.3	87.6	4	59.0	86.5
181.mcf	4	289	28.9	4	173	48.3
186.crafty	4	42.4	109	4	42.1	110
197.parser	4	143	58.3	4	112	74.4
252.eon	4	43.8	138	4	39.4	153
253.perlbmk	4	95.0	87.9	4	86.4	96.7
254.gap	4	63.1	80.9	4	61.8	82.6
255.vortex	4	74.1	119	4	67.3	131
256.bzip2	4	100	69.3	4	100	69.3
300.twolf	4	213	65.3	4	163	85.5

Hardware

CPU:	AMD Opteron 2220
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 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:	16 GB (8x2 GB PC2-5300)
Disk Subsystem:	1x36 GB 15K 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.perlbmk: -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
```