CINT2000 Result

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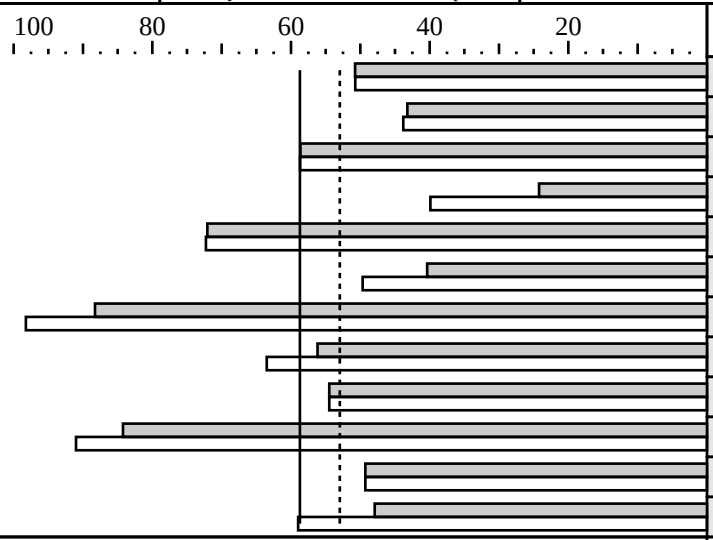
IBM Corporation

IBM System X 3455 (AMD Opteron (TM) 2210)

SPECint_rate2000 = 58.7

SPECint_rate_base2000 = 53.0

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	128	50.8	4	128	50.7
175.vpr	4	150	43.2	4	148	43.8
176.gcc	4	87.0	58.6	4	87.0	58.7
181.mcf	4	345	24.2	4	209	39.9
186.crafty	4	64.4	72.1	4	64.2	72.3
197.parser	4	207	40.4	4	168	49.7
252.eon	4	68.3	88.3	4	61.4	98.2
253.perlbmk	4	149	56.2	4	132	63.5
254.gap	4	93.7	54.5	4	93.7	54.5
255.vortex	4	105	84.2	4	96.9	91.0
256.bzip2	4	141	49.3	4	141	49.3
300.twolf	4	290	47.9	4	236	59.0

Hardware

CPU:	AMD Opteron 2210
CPU MHz:	1800
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) per core
Secondary Cache:	1024KB (I+D) (on chip) per core
L3 Cache:	N/A
Other Cache:	N/A
Memory:	8x2GB, PC2-5300
Disk Subsystem:	SATA, 80GB 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.perlbmk: -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)

```
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
```