CINT2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

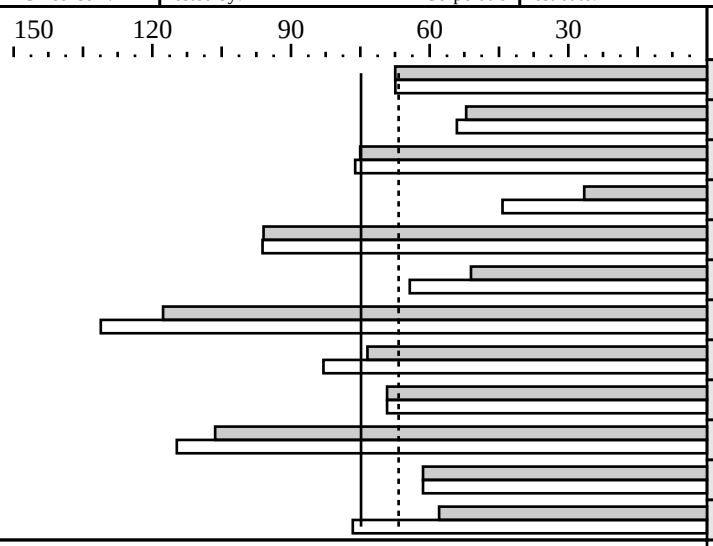
IBM Corporation

IBM System X 3455 (AMD Opteron (TM) 2216)

SPECint_rate2000 = 74.8

SPECint_rate_base2000 = 66.7

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	96.3	67.5	4	96.3	67.4
175.vpr	4	125	52.1	4	120	54.1
176.gcc	4	68.0	75.0	4	67.1	76.1
181.mcf	4	314	26.6	4	189	44.2
186.crafty	4	48.4	95.9	4	48.3	96.2
197.parser	4	164	51.1	4	130	64.3
252.eon	4	51.3	118	4	46.0	131
253.perlbmk	4	114	73.5	4	101	83.0
254.gap	4	73.7	69.2	4	73.7	69.2
255.vortex	4	82.8	106	4	76.9	115
256.bzip2	4	113	61.4	4	113	61.4
300.twolf	4	240	58.0	4	182	76.6

Hardware

CPU:	AMD Opteron 2216
CPU MHz:	2400
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
```

Copyright ©1999-2005, Standard Performance Evaluation Corporation

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
```