



# CINT2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

## IBM

IBM eServer 326m, 2.2 GHz Dual Core AMD Opteron(tm) Processor 275

SPECint\_rate2000 = 70.1

SPECint\_rate\_base2000 = 61.7

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Nov-2005 | Hardware Avail: Oct-2005 | Software Avail: Nov-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	105	61.8	4	105	61.7
175.vpr	4	132	49.3	4	126	51.7
176.gcc	4	75.1	68.0	4	74.5	68.5
181.mcf	4	346	24.1	4	212	39.4
186.crafty	4	51.1	90.8	4	50.0	92.8
197.parser	4	178	46.9	4	142	58.9
252.eon	4	57.9	104	4	48.7	124
253.perlbnk	4	123	67.9	4	107	78.3
254.gap	4	82.0	62.2	4	78.5	65.0
255.vortex	4	87.9	100	4	78.4	112
256.bzip2	4	121	57.5	4	121	57.5
300.twolf	4	248	56.2	4	190	73.3

### Hardware

CPU: Dual Core AMD Opteron(tm) Processor 275  
 CPU MHz: 2200  
 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: 8 x 1024GB PC3200  
 Disk Subsystem: SCSI, 36GB 15K RPM  
 Other Hardware: None

### Software

Operating System: SuSE Linux 9.0 SP2 SLES 64 bit Kernel 2.6.5-7.191-smp (SP2)  
 Compiler: PathScale EKO Compiler Suite, Release 2.2.1  
 File System: Linux/reiserfs  
 System State: Multi-user, run level 3

## Notes/Tuning Information

Tested by IBM Corporation

+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.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\_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

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org



# CINT2000 Result

Copyright ©1999-2005, Standard Performance Evaluation Corporation

## IBM

IBM eServer 326m, 2.2 GHz Dual Core AMD Opteron(tm) Processor 275

SPECint\_rate2000 = 70.1

SPECint\_rate\_base2000 = 61.7

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Nov-2005 | Hardware Avail: Oct-2005 | Software Avail: Nov-2005

### Notes/Tuning Information (Continued)

```

- OPT:treeheight=on - TENV:X=4:frame_pointer=off - fno-exception
- 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

```

#### BIOS Configuration Notes

Node Interleaving Disabled

#### Other Configuration Notes

Taskset utility used to bind process to CPU(s)