



# CINT2000 Result

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**IBM Corporation**  
IBM System X 3105 (AMD Opteron (TM) 1214)

SPECint2000 = **1555**  
SPECint\_base2000 = **1398**

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

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	1000 2000 3000 4000			
164.gzip	1400	104	1341	104	1341	[Bar chart showing ratio 1341]			
175.vpr	1400	125	1121	122	1145	[Bar chart showing ratio 1145]			
176.gcc	1100	70.6	1559	70.8	1554	[Bar chart showing ratio 1554]			
181.mcf	1800	262	688	165	1092	[Bar chart showing ratio 1092]			
186.crafty	1000	52.6	1901	52.6	1903	[Bar chart showing ratio 1903]			
197.parser	1800	169	1062	138	1302	[Bar chart showing ratio 1302]			
252.eon	1300	56.1	2317	49.3	2635	[Bar chart showing ratio 2635]			
253.perlbnk	1800	122	1478	107	1680	[Bar chart showing ratio 1680]			
254.gap	1100	75.2	1463	75.2	1463	[Bar chart showing ratio 1463]			
255.vortex	1900	86.8	2189	80.7	2354	[Bar chart showing ratio 2354]			
256.bzip2	1500	118	1270	118	1270	[Bar chart showing ratio 1270]			
300.twolf	3000	244	1229	187	1603	[Bar chart showing ratio 1603]			

### Hardware

CPU: AMD Opteron 1214  
CPU MHz: 2200  
FPU: Integrated  
CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip  
CPU(s) orderable: 1 chip  
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: 4x1GB, 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.perlbnk: -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



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## Notes/Tuning Information (Continued)

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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

```