



CINT2000 Result

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IBM

IBM eServer e326 (AMD Opteron (TM) 252)

SPECint2000 = 1678

SPECint_base2000 = 1477

SPEC license #: 11 | Tested by: IBM Corporation | Test date: Jun-2005 | Hardware Avail: Feb-2005 | Software Avail: Apr-2005

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio	
164.gzip	1400	90.4	1548	89.3	1567	
175.vpr	1400	125	1121	121	1156	
176.gcc	1100	65.8	1673	65.8	1673	
181.mcf	1800	340	530	169	1065	
186.crafty	1000	45.3	2207	45.1	2217	
197.parser	1800	160	1125	128	1403	
252.eon	1300	54.4	2390	47.8	2720	
253.perlbnk	1800	108	1672	97.7	1841	
254.gap	1100	67.6	1626	67.4	1632	
255.vortex	1900	79.3	2395	75.8	2507	
256.bzip2	1500	112	1342	112	1342	
300.twolf	3000	223	1346	167	1801	

Hardware

CPU: AMD Opteron 252
 CPU MHz: 2600
 FPU: Integrated
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip
 CPU(s) orderable: 1,2
 Parallel: No
 Primary Cache: 64KBI + 64KBD on chip
 Secondary Cache: 1024KB (I+D) on chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 8 x 1GB, DDR400
 Disk Subsystem: SCSI, 36GB 10K RPM
 Other Hardware: None

Software

Operating System: SuSE Linux 9.0 SP1 SLES 64 bit Kernel 2.6.5-7.139-smp
 Compiler: PathScale EKOPath(TM) Compiler Suite, Release 2.1
 AMD Core Math Library 2.5.1
 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: -O3 -ipa +FDO

Base tuning for C++ programs: -Ofast +FDO

Portability flags:

186.crafty: -DLINUX_i386

252.eon: -DHAS_ERRLIST -DSPEC_CPU2000_LP64 srcalt=fmax_errno

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_SIGNAL_PROTO -DSYS_HAS_ANSI -DSYS_HAS_CALLOC_PROTO

-DSPEC_CPU2000_LP64

255.vortex: -DSPEC_CPU2000_LP64

Peak tuning:

164.gzip: -Ofast +FDO

175.vpr: -O2 -ipa -OPT:alias=disjoint -CG:p2align_freq=500000 -INLINE:aggressive=on

-IPA:space=300:plimit=10000:callee_limit=5000:linear=on +FDO

176.gcc: basepeak=true

181.mcf: -O3 -ipa -IPA:field_reorder=on -m32 +FDO

186.crafty: -Ofast +FDO

Standard Performance Evaluation Corporation

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http://www.spec.org



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Notes/Tuning Information (Continued)

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197.parser: -O3 -ipa -m32 -IPA:ctype=on +FDO
252.eon: -Ofast -CG:gcm=off:p2align_freq=1:prefetch=off -OPT:treeheight=on
-TENV:X=4:frame_pointer=off -fno-exceptions -LNO:fu=10:full_unroll_outer=on
-IPA:plimit=4000:pu_reorder=1 +FDO
253.perlbnk: -O3 -ipa -IPA:plimit=10000 +FDO
254.gap: -O3 -ipa -OPT:transform_to_memlib=on +FDO
255.vortex: -Ofast -IPA:space=70:plimit=3000
-OPT:goto=off:unroll_analysis=off:unroll_size=0:unroll_times_max=8
256.bzip2: basepeak=true
300.twolf: -O2 -OPT:unroll_times_max=8:unroll_size=256:alias=disjoint:Ofast
-CG:gcm=off:p2align_freq=100000 -WOPT:mem_opnds=on -m32 +FDO

```

BIOS Configuration Notes
Node Interleaving Disabled

Other Configuration Notes
Taskset utility used to bind process to CPU(s)