



CINT2000 Result

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IBM

AMD Opteron LS20 for IBM eServer Blade Center (AMD Opteron (TM) 275)

SPECint_rate2000 = 65.0

SPECint_rate_base2000 = 58.9

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

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	4	106	61.1	4	106	61.2
175.vpr	4	143	45.3	4	139	46.6
176.gcc	4	80.2	63.6	4	80.2	63.6
181.mcf	4	361	23.1	4	223	37.4
186.crafty	4	53.2	87.3	4	53.1	87.3
197.parser	4	185	45.1	4	150	55.8
252.eon	4	63.8	94.5	4	58.9	102
253.perlbnk	4	125	66.7	4	115	72.4
254.gap	4	83.3	61.2	4	83.6	61.1
255.vortex	4	95.7	92.1	4	92.1	95.7
256.bzip2	4	127	54.7	4	127	54.7
300.twolf	4	250	55.6	4	192	72.3

Hardware

CPU: AMD Opteron 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
 Secondary Cache: 1024KB (I+D) on chip
 L3 Cache: N/A
 Other Cache: N/A
 Memory: 4 x 2048MB, DDR400
 Disk Subsystem: SCSI, 36GB 10K RPM
 Other Hardware: None

Software

Operating System: SuSE Linux 9.0 SLES 64 bit Kernel 2.6.5-7.151-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)