CINT2000 Result

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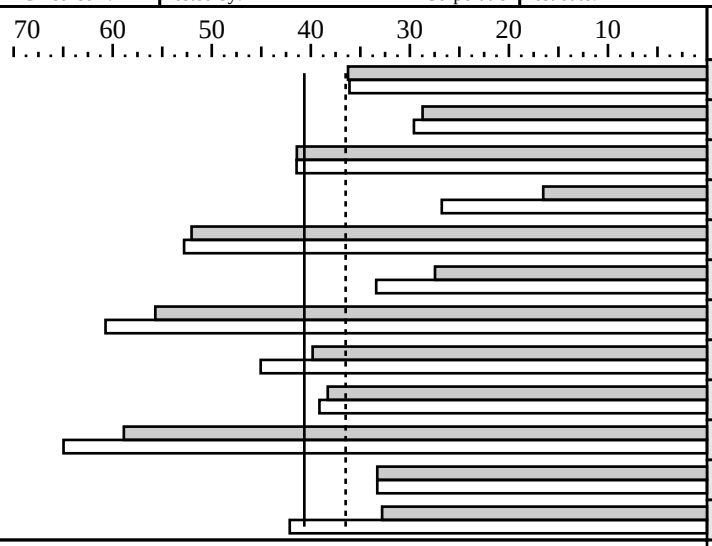
IBM

AMD Opteron LS20 for IBM eServer Blade Center (AMD Opteron (TM) 252)

SPECint_rate2000 = 40.7

SPECint_rate_base2000 = 36.5

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



Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	2	89.6	36.2	2	90.0	36.1
175.vpr	2	113	28.7	2	110	29.6
176.gcc	2	61.6	41.4	2	61.6	41.4
181.mcf	2	253	16.5	2	156	26.8
186.crafty	2	44.6	52.0	2	43.9	52.8
197.parser	2	152	27.5	2	125	33.4
252.eon	2	54.1	55.7	2	49.7	60.7
253.perlbmk	2	105	39.8	2	92.7	45.1
254.gap	2	66.7	38.3	2	65.2	39.1
255.vortex	2	74.9	58.9	2	67.9	65.0
256.bzip2	2	105	33.3	2	105	33.3
300.twolf	2	212	32.8	2	165	42.1

Hardware

CPU:	AMD Opteron 252
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	2 cores, 2 chips, 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:	4x2048MB, DDR400
Disk Subsystem:	SCSI, 36GB 10K RPM
Other Hardware:	None

Software

Operating System:	SuSE Linux 9.0 SLES 64 bit Kernel 2.6.5-7.139-smp (SP1)
Compiler:	PathScale EKO Compiler Suite, Release 2.0
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

 Baseline optimization flags:
   C programs:       -Ofast +FDO
   C++ programs:     -Ofast +FDO

 Portability Flags:
   181.mcf:     -DWANT_STDC_PROTO
   186.crafty:  -DLINUX_i386
   252.eon:     -DHAS_ERRLIST -DSPEC_CPU2000_LP64
                srcalt fmax_errno
   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_SIGNAL_PROTO -DSYS_HAS_ANSI
                -DSYS_HAS_CALLOC_PROTO -DSPEC_CPU2000_LP64
   255.vortex:  -DSPEC_CPU2000_LP64
                srcalt=closed_files
```

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Notes/Tuning Information (Continued)

```
    300.twolf:   -DHAVE_SIGNED_CHAR

  Peak Tuning:
    164.gzip:    -O3 -ipa -m3dnow -WOPT:val=0 +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:     -O3 -ipa -OPT:goto=off +FDO
    181.mcf:     -O3 -ipa -IPA:field_reorder=on -m32 +FDO
    186.crafty:  -O3 -OPT:goto=off +FDO
    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 +FDO
    253.perlbmk: -Ofast -OPT:transform_to_memlib=off -IPA:plimit=10000 +FDO
    254.gap:     -Ofast -WOPT:aggstr=0 +FDO
    255.vortex:  -Ofast -OPT:goto=off -IPA:plimit=1800 -CG:p2align=on
                 +FDO
    256.bzip2:   basepeak=TRUE
    300.twolf:   -O2 -CG:gcm=off:p2align_freq=100000
                 -OPT:Ofast:unroll_times=8:unroll_size=256:alias=disjoint
                 -WOPT:mem_opnds=on -m32 +FDO
```