# CINT2000 Result

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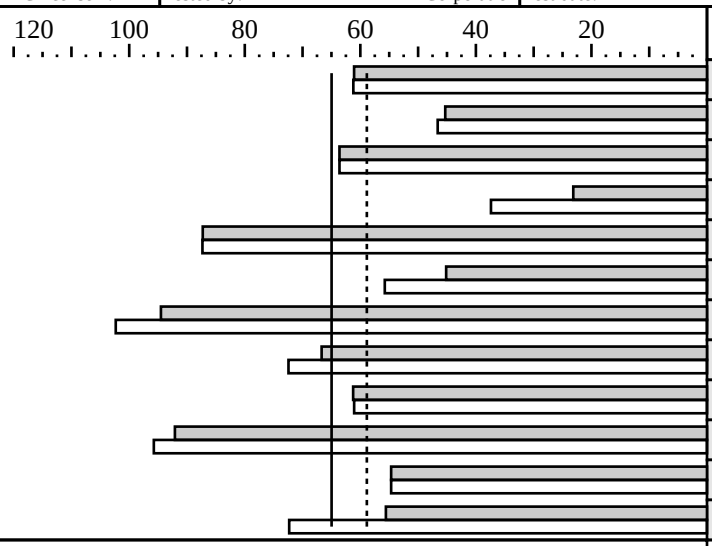
## IBM

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.perlbmk | 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<br>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.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
 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
```

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## Notes/Tuning Information (Continued)

```
    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.perlbmk: -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)
```