# CINT2000 Result

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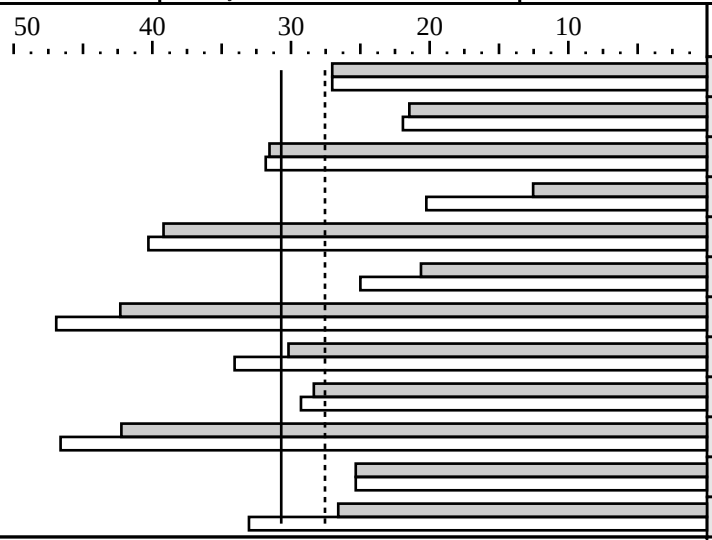
## IBM Corporation

AMD Opteron LS20 for IBM eServer Blade Center (AMD Opteron (TM) 246)

SPECint_rate2000 = 30.7

SPECint_rate_base2000 = 27.5

SPEC license #: 11 | Tested by: IBM, Inc. | Test date: Apr-2005 | Hardware Avail: Apr-2005 | Software Avail: Apr-2005




| Benchmark | Base Copies | Base Runtime | Base Ratio | Copies | Runtime | Ratio |
|---|---|---|---|---|---|---|
| 164.gzip | 2 | 120 | 27.0 | 2 | 120 | 27.0 |
| 175.vpr | 2 | 151 | 21.5 | 2 | 148 | 21.9 |
| 176.gcc | 2 | 80.9 | 31.6 | 2 | 80.2 | 31.8 |
| 181.mcf | 2 | 333 | 12.5 | 2 | 206 | 20.2 |
| 186.crafty | 2 | 59.2 | 39.2 | 2 | 57.6 | 40.3 |
| 197.parser | 2 | 202 | 20.6 | 2 | 167 | 25.0 |
| 252.eon | 2 | 71.3 | 42.3 | 2 | 64.3 | 46.9 |
| 253.perlbmk | 2 | 138 | 30.2 | 2 | 123 | 34.1 |
| 254.gap | 2 | 90.0 | 28.4 | 2 | 87.2 | 29.3 |
| 255.vortex | 2 | 104 | 42.2 | 2 | 94.6 | 46.6 |
| 256.bzip2 | 2 | 137 | 25.3 | 2 | 137 | 25.3 |
| 300.twolf | 2 | 262 | 26.6 | 2 | 211 | 33.0 |

### Hardware

| | |
|---|---|
| CPU: | AMD Opteron 246 |
| CPU MHz: | 2000 |
| 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: | 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 (SP1) |
| Compiler: | PathScale EKOPath(TM) Compiler Suite, Release 2.1 |
| File System: | Linux/reiserfs |
| System State: | Multi-user, run level 3 |

## Notes/Tuning Information

```
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 +FDO: PASS1= -fb_create fbdata  PASS2= -fb_opt fbdata

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

 Portability Flags:
   176.gcc:      srcalt 64bitgcc
   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

 Peak Tuning:
```

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## Notes/Tuning Information (Continued)

```
164.gzip: basepeak = true
175.vpr: -O2 -ipa -OPT:alias=disjoint -CG:p2align_freq=500000
         -INLINE:aggressive=on -IPA:plimit=10000:callee_limit=5000
         +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: -O2 -ipa -OPT:Ofast:transform_to_memlib=off
             -fno-math-errno -IPA:plimit=10000 +FDO
254.gap:     -Ofast -WOPT:aggstr=off +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_max=8:unroll_size=256:alias=disjoint
           -WOPT:mem_opnds=on -m32 +FDO
```