# CINT2000 Result



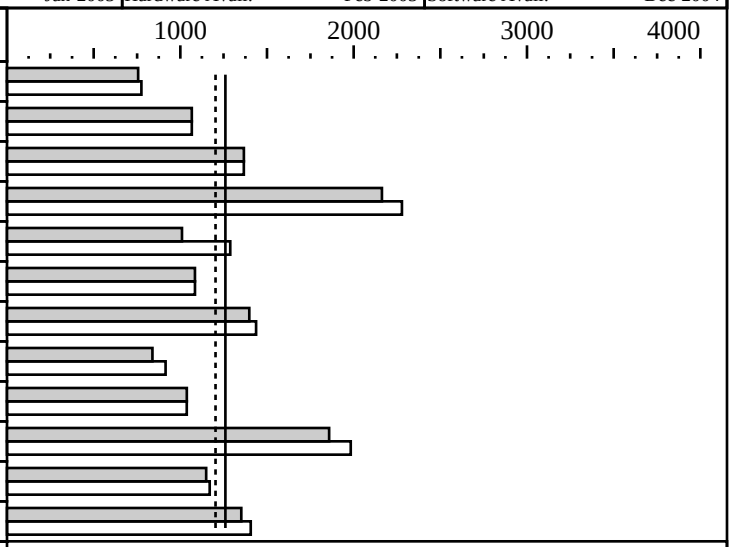
## IBM Corporation
## IBM eServer p5 510 (1650 MHz, 1 CPU)

SPECint2000 = 1260

SPECint_base2000 = 1203

SPEC license #: 11 | Tested by: IBM | Test date: Jan-2005 | Hardware Avail: Feb-2005 | Software Avail: Dec-2004

| Benchmark | Reference Time | Base Runtime | Base Ratio | Runtime | Ratio |
|---|---|---|---|---|---|
| 164.gzip | 1400 | 185 | 757 | 181 | 775 |
| 175.vpr | 1400 | 131 | 1066 | 131 | 1066 |
| 176.gcc | 1100 | 80.5 | 1367 | 80.5 | 1366 |
| 181.mcf | 1800 | 83.2 | 2164 | 79.0 | 2278 |
| 186.crafty | 1000 | 99.1 | 1009 | 77.6 | 1288 |
| 197.parser | 1800 | 166 | 1084 | 166 | 1084 |
| 252.eon | 1300 | 93.0 | 1398 | 90.5 | 1437 |
| 253.perlbmk | 1800 | 215 | 839 | 197 | 915 |
| 254.gap | 1100 | 106 | 1037 | 106 | 1037 |
| 255.vortex | 1900 | 102 | 1859 | 95.8 | 1984 |
| 256.bzip2 | 1500 | 131 | 1149 | 128 | 1169 |
| 300.twolf | 3000 | 222 | 1352 | 213 | 1406 |




### Hardware

| | |
|---|---|
| CPU: | POWER5 |
| CPU MHz: | 1650 |
| FPU: | Integrated |
| CPU(s) enabled: | 1 core, 1 chip, 1 core/chip (SMT off) |
| CPU(s) orderable: | 1,2 |
| Parallel: | no |
| Primary Cache: | 64KBI+32KBD (on chip) |
| Secondary Cache: | 1920KB unified (on chip) |
| L3 Cache: | 36MB unified (off-chip)/DCM, 1 DCM/SUT |
| Other Cache: | None |
| Memory: | 8x4GB |
| Disk Subsystem: | 2x36GB SCSI, 15K RPM |
| Other Hardware: | None |

### Software

| | |
|---|---|
| Operating System: | AIX 5L V5.3 |
| Compiler: | XL C/C++ Enterprise Edition Version 7.0 for AIX |
| File System: | AIX/JFS2 |
| System State: | Multi-user |

## Notes/Tuning Information

```
Portability Flags:
  176.gcc:      -ma -DHOST_WORDS_BIG_ENDIAN
  186.crafty:   -DAIX
  252.eon:      srcalt=fmax_errno
                -I.
  253.perlbmk:  -DSPEC_CPU2000_AIX
  254.gap:      -DSYS_IS_BSD -DSYS_STRING_H -DSYS_HAS_TIME_PROTO
                -DSYS_HAS_MALLOC_PROTO -DSYS_HAS_CALLOC_PROTO
  300.twolf:    -DHAVE_SIGNED_CHAR

Base Optimization Flags:
  C:    -qpdf1/pdf2
        -O5 -blpdata -D_ILS_MACROS
  C++:  -qpdf1/pdf2
        -O5 -lhmu -qalign=natural

Peak Optimization Flags
  164.gzip:     -qpdf1/pdf2
                fdpr -q -O3
                -O5 -blpdata -qfdpr
```

## Notes/Tuning Information (Continued)

```
  175.vpr:      -qpdf1/pdf2
                -O5 -blpdata -qalign=natural -D_ILS_MACROS
  176.gcc:      -qpdf1/pdf2
                -O5 -blpdata -D_ILS_MACROS
  181.mcf:      fdpr -q -O3
                -O5 -blpdata -qfdpr
  186.crafty:   -qpdf1/pdf2
                fdpr -q -O3
                -O4 -q64 -qfdpr -qarch=pwr3 -qtune=pwr3
  197.parser:   -qpdf1/pdf2
                -O5 -blpdata -qalign=natural -D_ILS_MACROS
  252.eon:      -qpdf1/pdf2
                -O4 -qarch=auto -qtune=auto -qalign=natural -D_ILS_MACROS
  253.perlbmk:  -qpdf1/pdf2
                -O5 -lhmu -qalign=natural -blpdata -D_ILS_MACROS
  254.gap:      -qpdf1/pdf2
                 -O5 -blpdata -qalign=natural -D_ILS_MACROS
  255.vortex:   -qpdf1/pdf2
                -O5 -lhmu -qalign=natural -blpdata -D_ILS_MACROS
  256.bzip2:    fdpr -q -O3
                -O5 -blpdata -qfdpr -D_ILS_MACROS
  300.twolf:    fdpr -q -O3
                -O5 -blpdata -qfdpr -qalign=natural

Approved alternate-source file 252.eon.fmax_errno.src.alt.tar.gz
was used with 252.eon for POSIX-compatibility.

APAR IY62267 was applied to AIX 5L V5.3 to achieve Mantainence Level 1.

SMT:  Acronym for "Simultaneous Multi-Threading". A processor technology that allows
      the simultaneous execution of multiple thread contexts within a single processor
      core. (Enabled by default)
DCM:  Acronym for "Dual-Chip Module" (one dual-core processor chip + one L3-cache chip)
SUT:  Acronym for "System Under Test"

ulimits set to unlimited.
Large page mode and memory affinity were set as follows:
    vmo -r -o lgpg_regions=512 -o lgpg_size=16777216 -o memory_affinity=1
    chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
    reboot -q
    export MEMORY_AFFINITY=MCM
One core was deconfigured and SMT disabled at the open-firmware prompt, using the
command
    boot -s cpu=1 -s smt_off
```