# CINT2000 Result

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## IBM Corporation

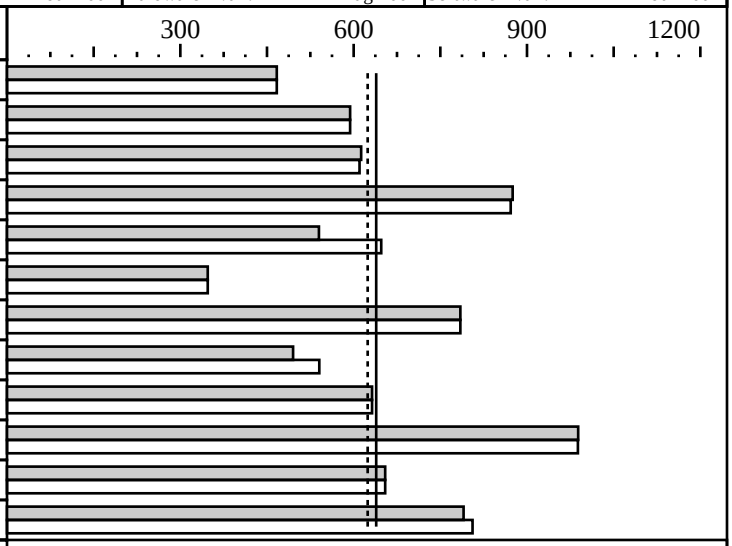
IBM eServer pSeries 630 Model 6E4 (1000 MHz, 1 CPU)

SPECint2000 = 639

SPECint_base2000 = 624

SPEC license #: 11 | Tested by: IBM, Austin, TX | Test date: Jul-2002 | Hardware Avail: Aug-2002 | Software Avail: Jul-2002

| Benchmark | Reference Time | Base Runtime | Base Ratio | Runtime | Ratio |
|---|---|---|---|---|---|
| 164.gzip | 1400 | 300 | 467 | 300 | 467 |
| 175.vpr | 1400 | 236 | 594 | 236 | 594 |
| 176.gcc | 1100 | 179 | 613 | 180 | 610 |
| 181.mcf | 1800 | 206 | 875 | 206 | 872 |
| 186.crafty | 1000 | 185 | 540 | 154 | 648 |
| 197.parser | 1800 | 518 | 347 | 518 | 347 |
| 252.eon | 1300 | 166 | 785 | 166 | 785 |
| 253.perlbmk | 1800 | 364 | 495 | 333 | 541 |
| 254.gap | 1100 | 174 | 632 | 174 | 632 |
| 255.vortex | 1900 | 192 | 989 | 192 | 988 |
| 256.bzip2 | 1500 | 229 | 655 | 229 | 655 |
| 300.twolf | 3000 | 380 | 790 | 372 | 806 |




### Hardware

| | |
|---|---|
| CPU: | POWER4 |
| CPU MHz: | 1000 |
| FPU: | Integrated |
| CPU(s) enabled: | 1 core, 1 chip, 2 cores/chip, 1 chip/SCM |
| CPU(s) orderable: | 1,2,4 (order by # cores) |
| Parallel: | No |
| Primary Cache: | 64KBI+32KBD (on chip) per core |
| Secondary Cache: | 1440KB unified (on chip) per chip |
| L3 Cache: | 32MB unified (off chip)/SCM, 1SCM in SUT |
| Other Cache: | None |
| Memory: | 4GB |
| Disk Subsystem: | 1x18.2GB SCSI |
| Other Hardware: | None |

### Software

| | |
|---|---|
| Operating System: | AIX 5L V5.1 |
| Compiler: | IBM VisualAge C++ for AIX, Version 6.0 |
| File System: | AIX/JFS |
| System State: | Multi-user |

## Notes/Tuning Information

```
Integer Portability Flags:
  gcc:     -ma -DHOST_WORDS_BIG_ENDIAN
  crafty:  -DAIX
  eon:     -DNEED_EXPLICIT_SPECIALIZATION
            -I. -DNDEBUG
  perlbmk: -DSPEC_CPU2000_AIX
  gap:     -DSYS_IS_BSD -DSYS_STRING_H -DSYS_HAS_TIME_PROTO
           -DSYS_HAS_MALLOC_PROTO -DSYS_HAS_CALLOC_PROTO
  twolf:   -DHAVE_SIGNED_CHAR

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

Integer Peak Optimization Flags:
164.gzip
```

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## Notes/Tuning Information (Continued)

```
    CC = /usr/vac/bin/xlc
    BASEPEAK = 1
  175.vpr
    BASEPEAK = 1
  176.gcc
    -qpdf1/pdf2
    -O5 -lhmu -qalign=natural
  181.mcf
    fdpr -v -R3
    -O3 -lhmu -qipa=partition=large -blpdata
  186.crafty
    fdpr -v -R3
    -O4 -q64
  197.parser
    BASEPEAK = 1
  252.eon
    BASEPEAK = 1
  253.perlbmk
    -qpdf1/pdf2
    -O5 -lhmu -qalign=natural
  254.gap
    BASEPEAK = 1
  255.vortex
    -qpdf1/pdf2
    -O5 -lhmu -qalign=natural
  256.bzip2
    BASEPEAK = 1
  300.twolf
    CC = /usr/vac/bin/xlc
    -qpdf1/pdf2
    -O5 -lhmu -qalign=natural -blpdata

    SCM: Acronym for "Single-Chip Module"
    SUT: Acronym for "System Under Test"

    fpdr: Feedback directed program restructuring tool.
    /usr/spec2000 filesystem mounted with no JFS log file I/O.
    APAR IY31315 was applied to AIX to enable new hardware support.
    ulimits set to unlimited.
    chuser capabilities=CAP_BYPASS_RAC_VMM,CAP_PROPAGATE $USER
    C: IBM VAC++ invoked as cc except where noted as xlc.
    C++: IBM VAC++ invoked as xlC.
    Large page mode and memory affinity were set as follows:
    vmtune -g 16777216 -L 200 -y1
```