```
---------------------------------------------------------------------------
      bzip2-All-4way     Simulation Results
---------------------------------------------------------------------------

Number of reference types:
  Number of reads   =  1874397115  [18.74%]
  Number of writes  =   567216161  [5.67%]
  Number of inst    =  7558386724  [75.58%]
  Total             =  10000000000

Total cycles for all activities:
  Cycles for reads  =  19276483134  [38.35%]
  Cycles for writes =  19026076053  [37.85%]
  Cycles for inst   =  11967495747  [23.81%]
  Total time        =  50270054934

Average cycles per activity:
  Read  = 10.28
  Write = 33.54
  Inst  = 1.58
Ideal: Exec. Time = 17558386724; CPI = 2.32
Ideal mis-aligned: Exec. Time = 23201139335; CPI = 3.07

Memory level: L1i
  Hits   =  11966585996  [100.00%]
  Misses =        6957  [0.00%]
  Total  =  11966592953
  Kickouts = 6701, Dirty kickouts = 0, Transfers = 6957

Memory level: L1d
  Hits   =  2378376456  [93.57%]
  Misses =   163350880  [6.43%]
  Total  =  2541727336
  Kickouts = 163350624, Dirty kickouts = 69948915, Transfers = 163350880

Memory level: L2
  Hits   =    79767974  [34.19%]
  Misses =   153538778  [65.81%]
  Total  =   233306752
  Kickouts = 153538266, Dirty kickouts = 63631592, Transfers = 153538778

Cost analysis:
  L1i cache cost = $600
  L1d cache cost = $600
  L2  cache cost = $150
  Memory cost    = $75
  Total cost     = $1425
```