```
-------------------------------------------------------------------------
      bzip2-defaults     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  =  21168923005  [40.97%]
  Cycles for writes =  18509292237  [35.82%]
  Cycles for inst   =  11988306327  [23.20%]
  Total time        =  51666521569


Average cycles per activity:
  Read  = 11.29
  Write = 32.63
  Inst  = 1.59
Ideal: Exec. Time = 17558386724; CPI = 2.32
Ideal mis-aligned: Exec. Time = 23201139335; CPI = 3.07


Memory level: L1i
  Hits   =  11965504642  [99.99%]
  Misses =      1088311  [0.01%]
  Total  =  11966592953
  Kickouts = 1088055, Dirty kickouts = 0, Transfers = 1088311


Memory level: L1d
  Hits   =  2360740266  [92.88%]
  Misses =   180987070  [7.12%]
  Total  =  2541727336
  Kickouts = 180986814, Dirty kickouts = 75658750, Transfers = 180987070


Memory level: L2
  Hits   =   100849192  [39.13%]
  Misses =   156884939  [60.87%]
  Total  =   257734131
  Kickouts = 156884427, Dirty kickouts = 66969105, Transfers = 156884939


Cost analysis:
  L1i cache cost = $200
  L1d cache cost = $200
  L2  cache cost = $50
  Memory cost    = $75
  Total cost     = $525
```