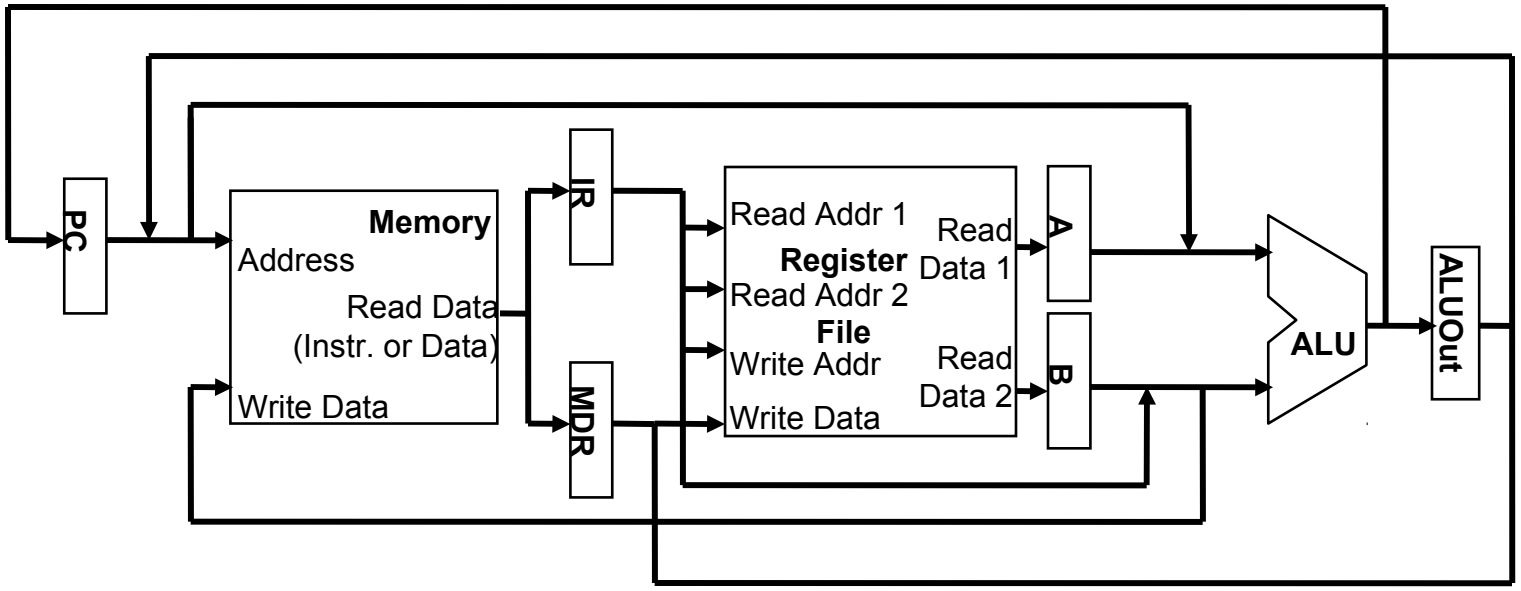
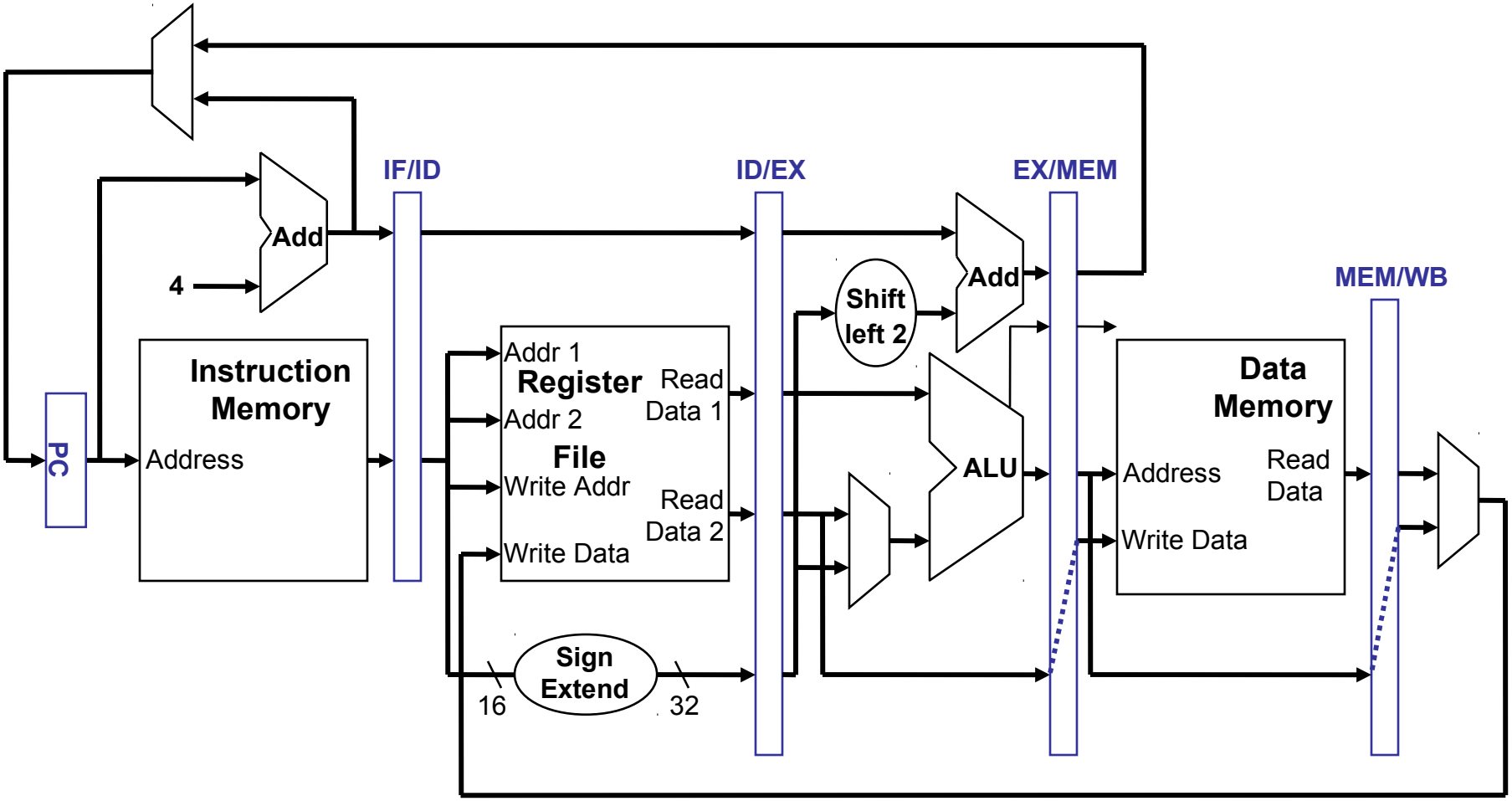
Multicycle design

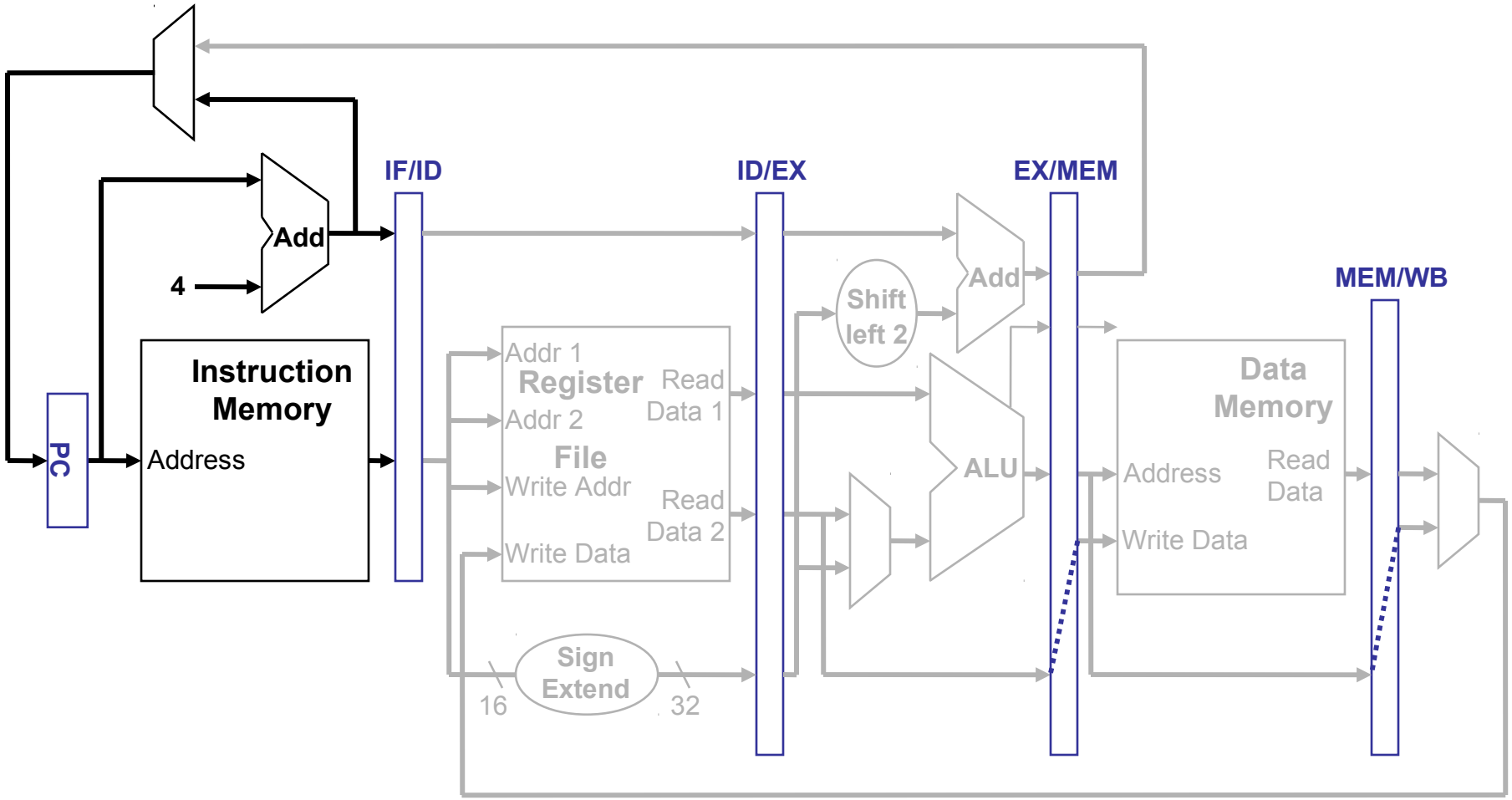


Pipelined State Registers

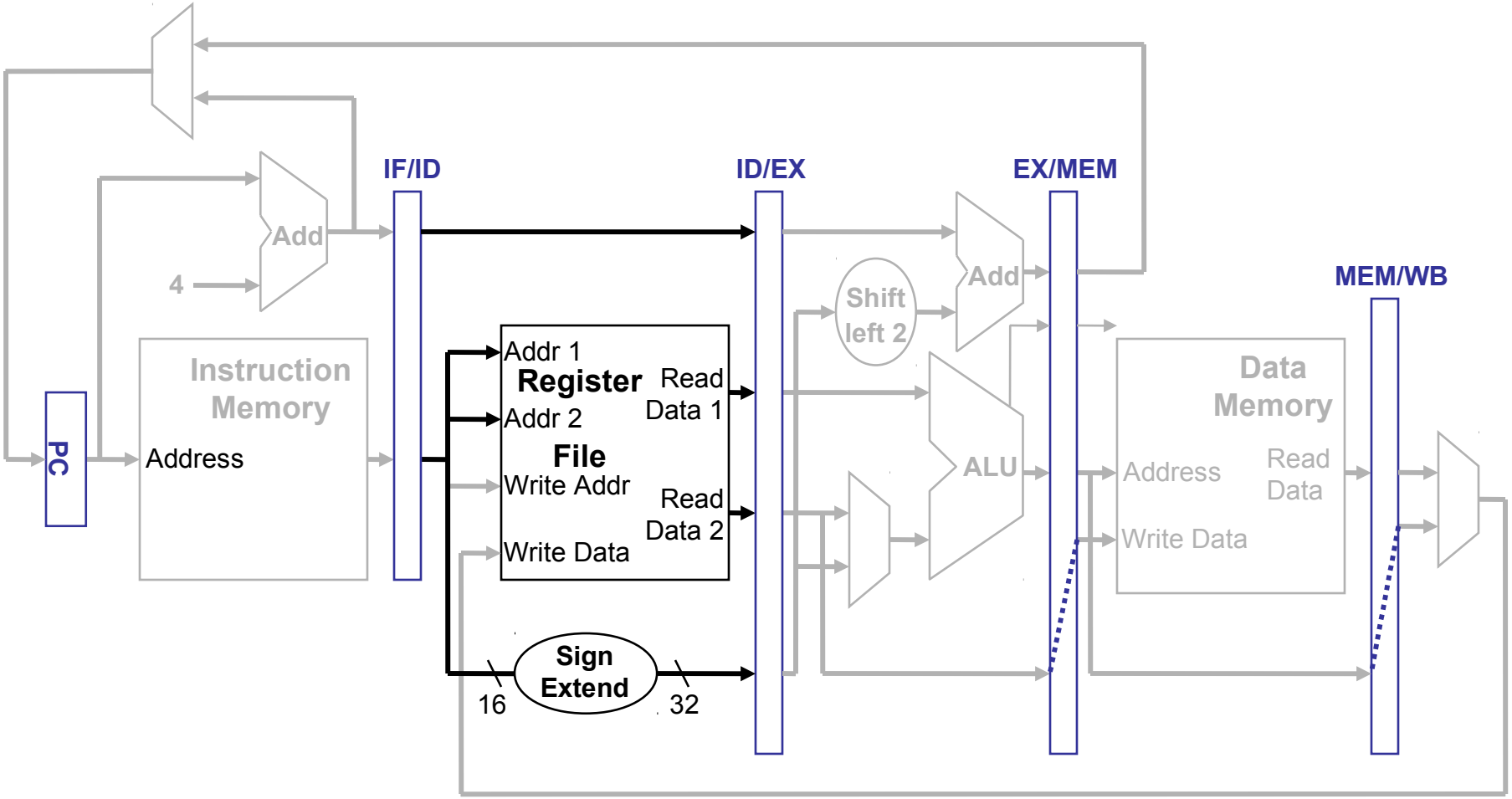
- More registers necessary for a pipelined CPU



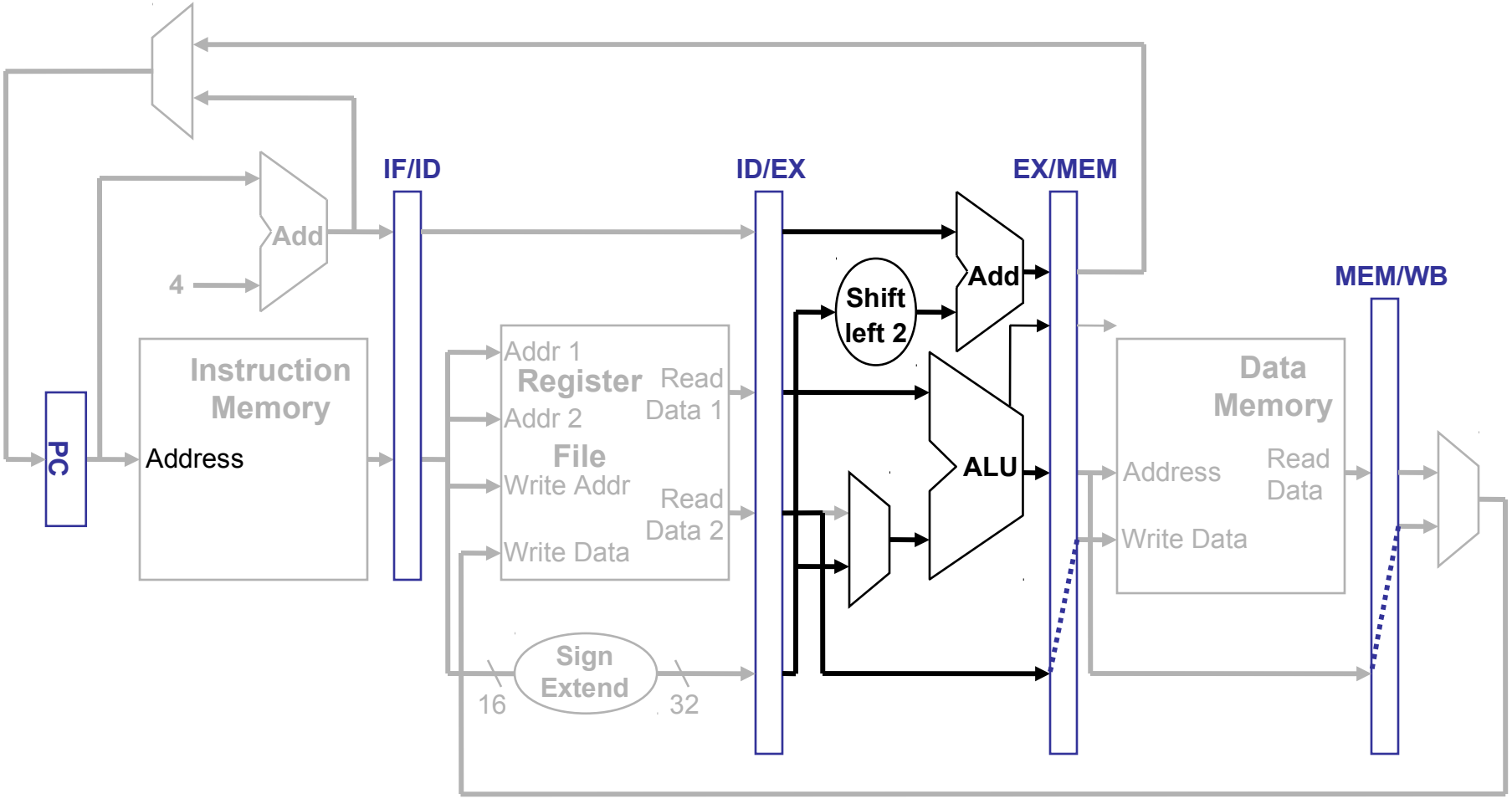
Load Word Example (Fetch)



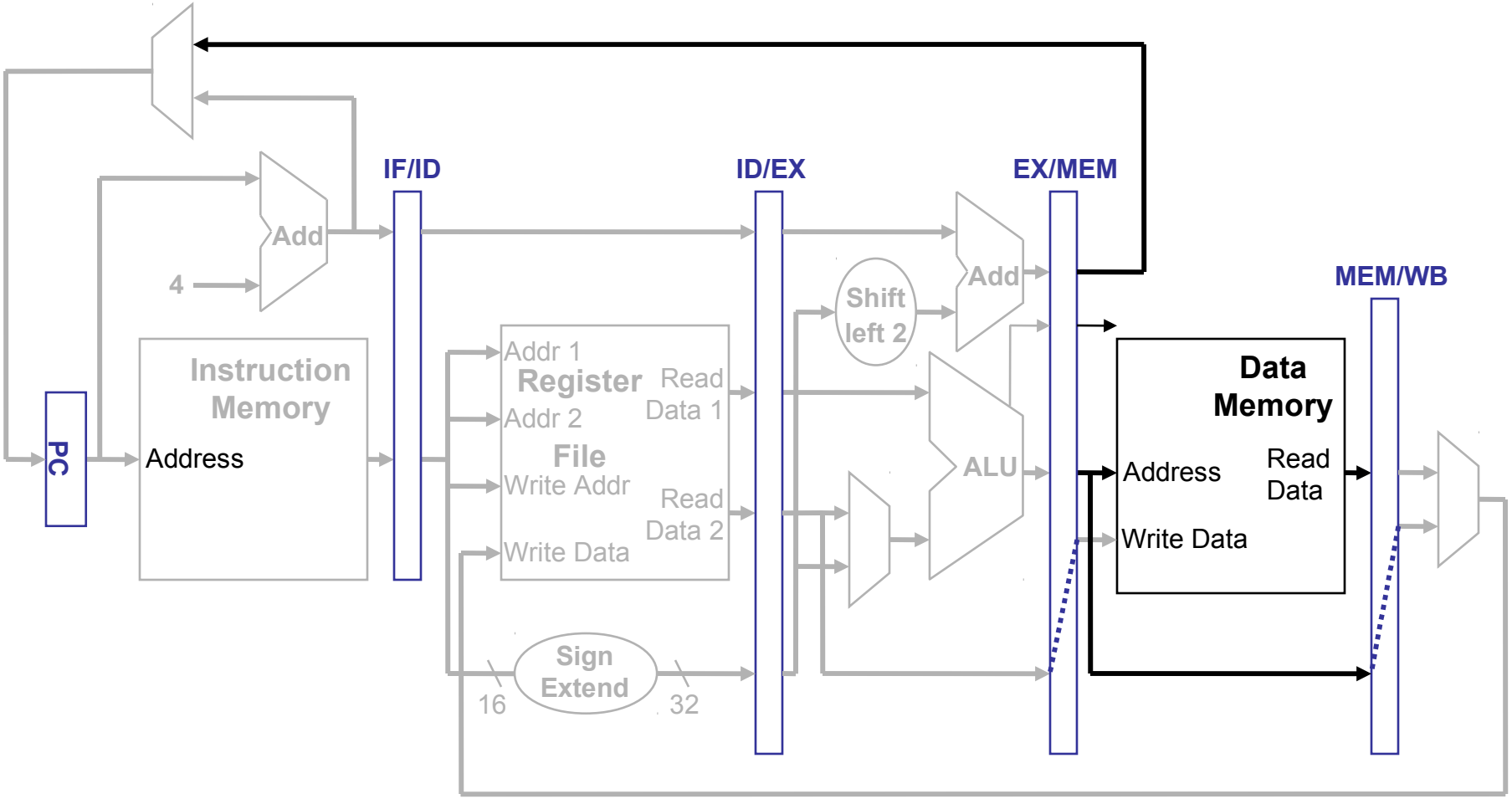
Load Word Example (Decode)



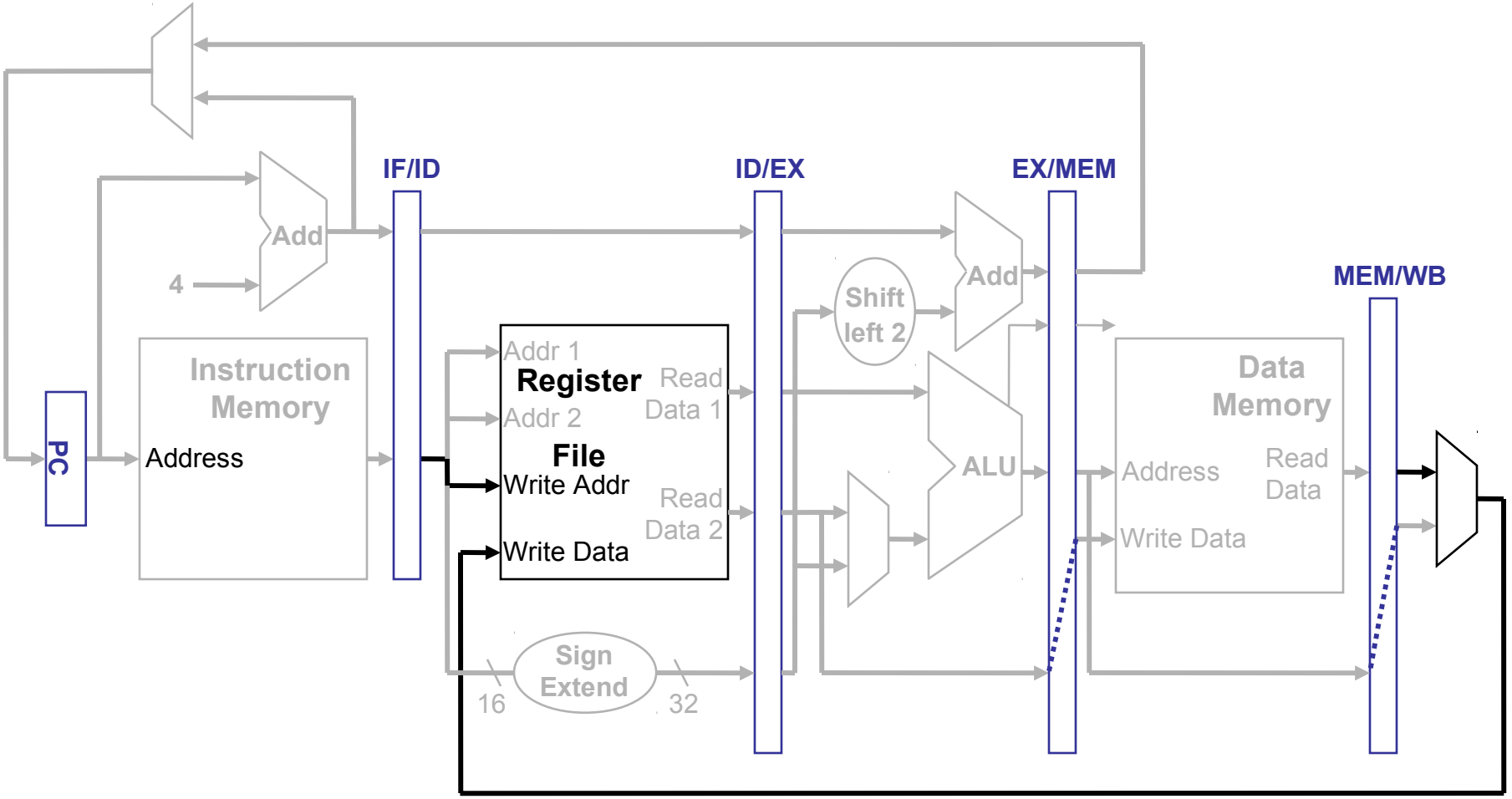
Load Word Example (Execute)



Load Word Example (Memory)

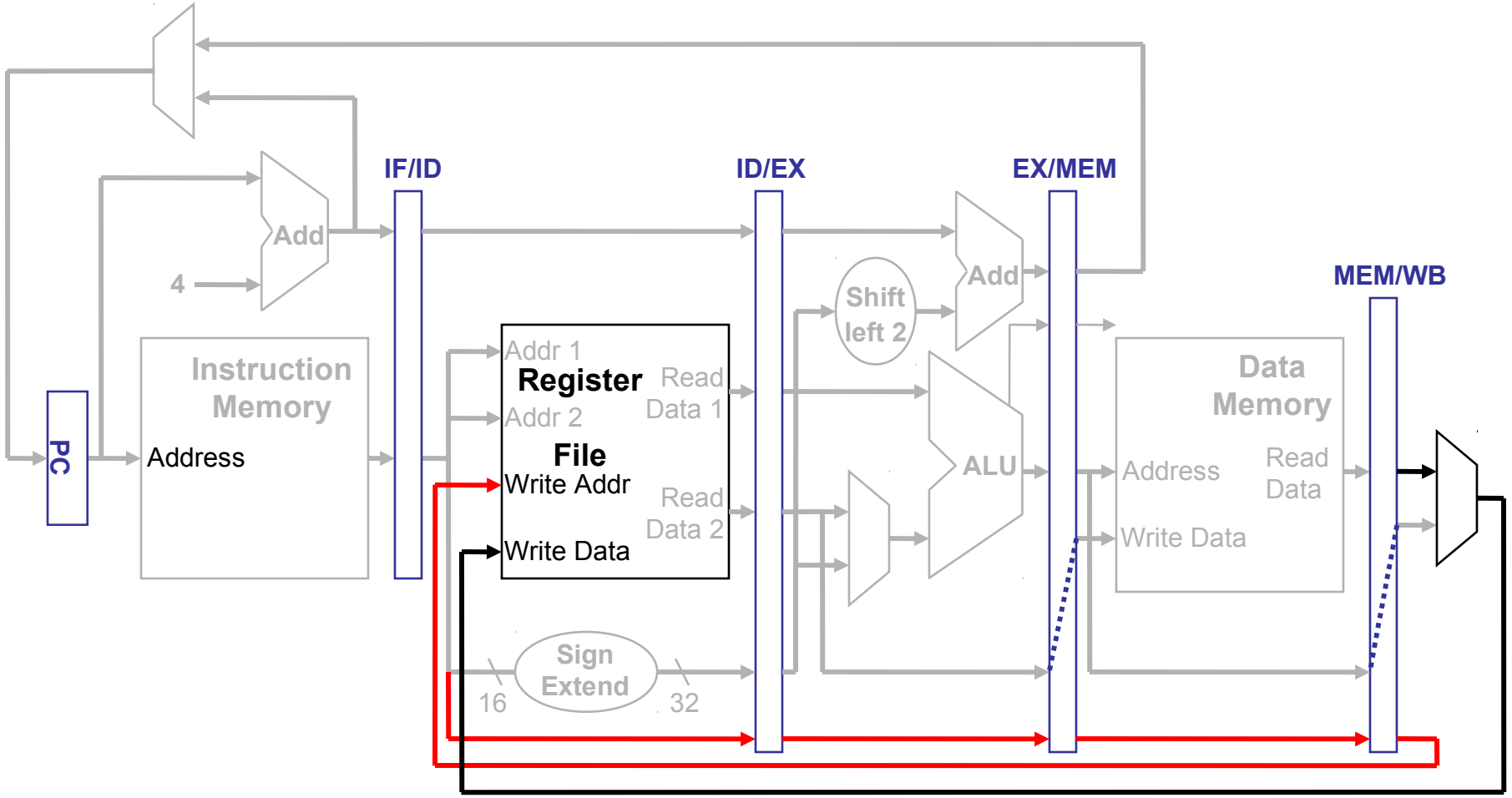


Load Word Example (Write Back)

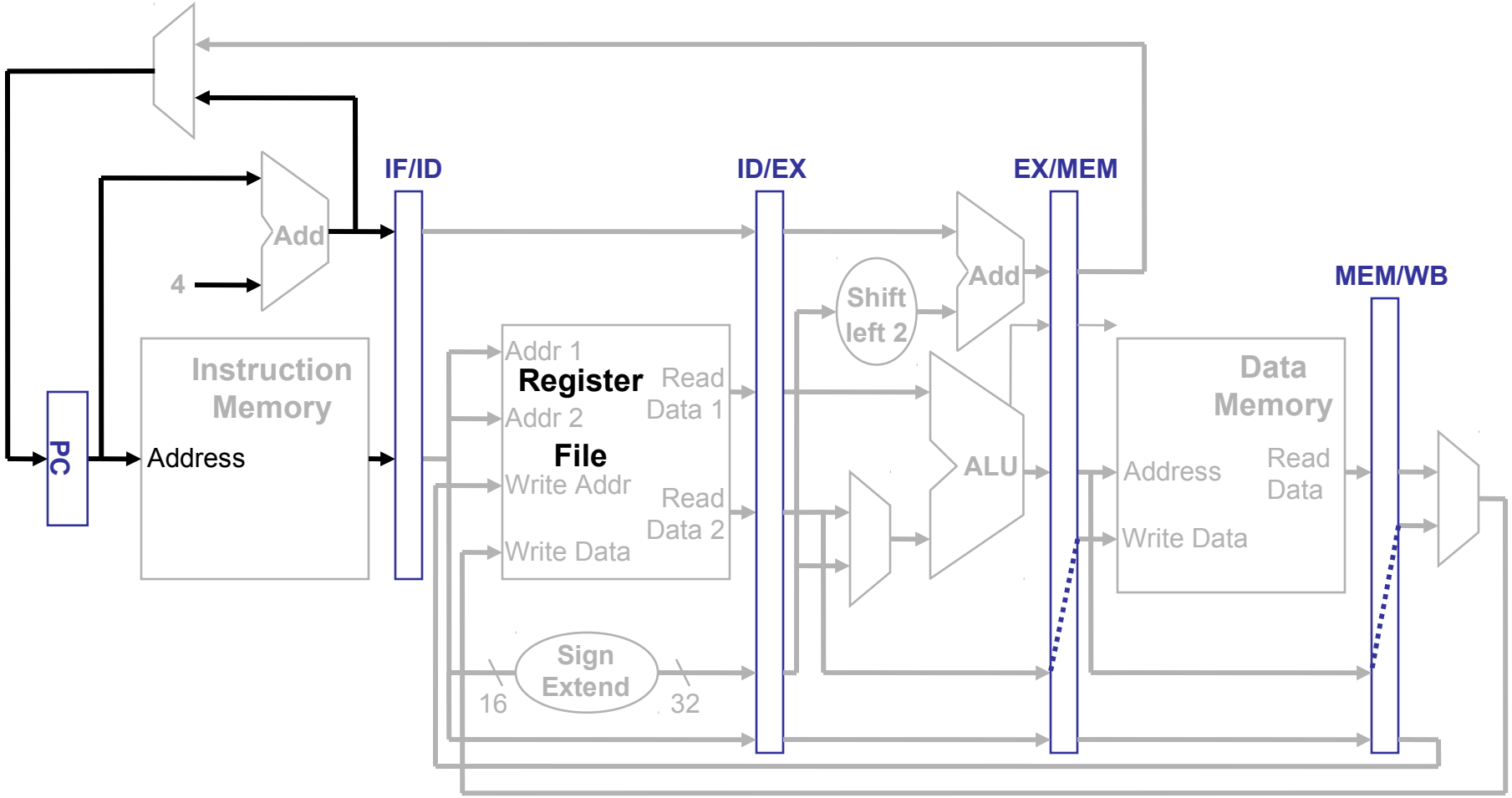


Load Word Example (Write Back)

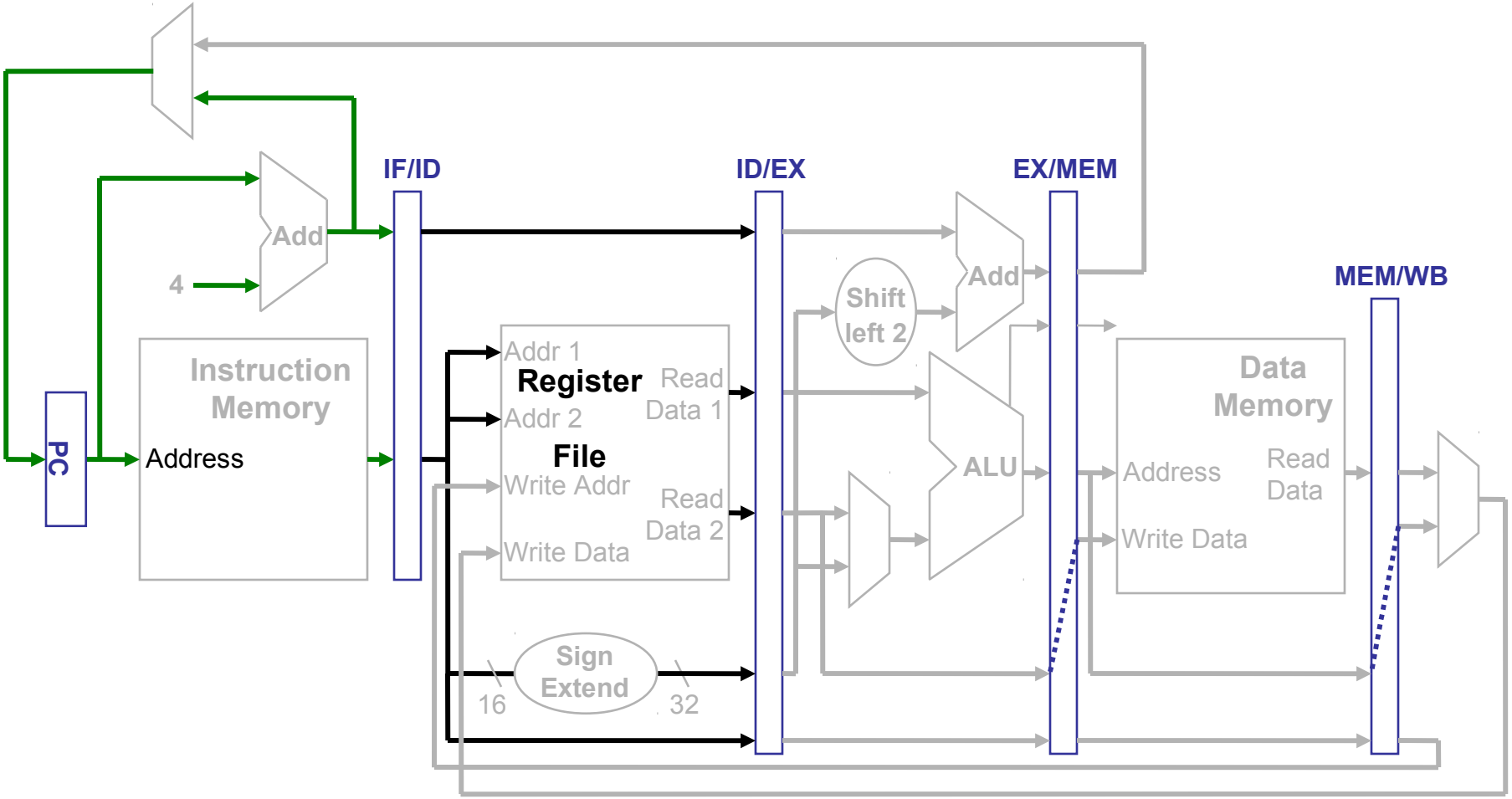
- All required values must pass through registers



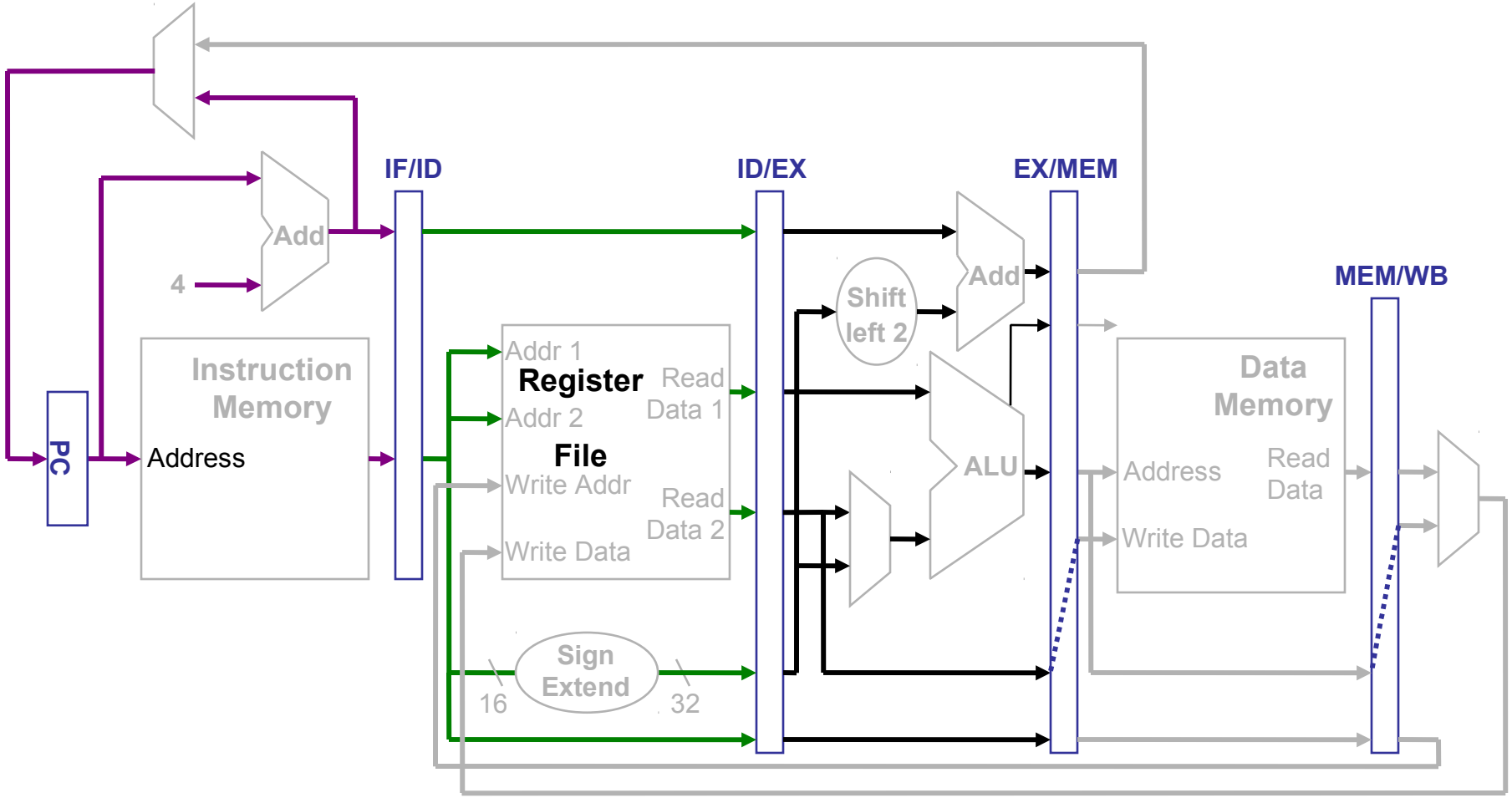
Load Word Example (Fetch)



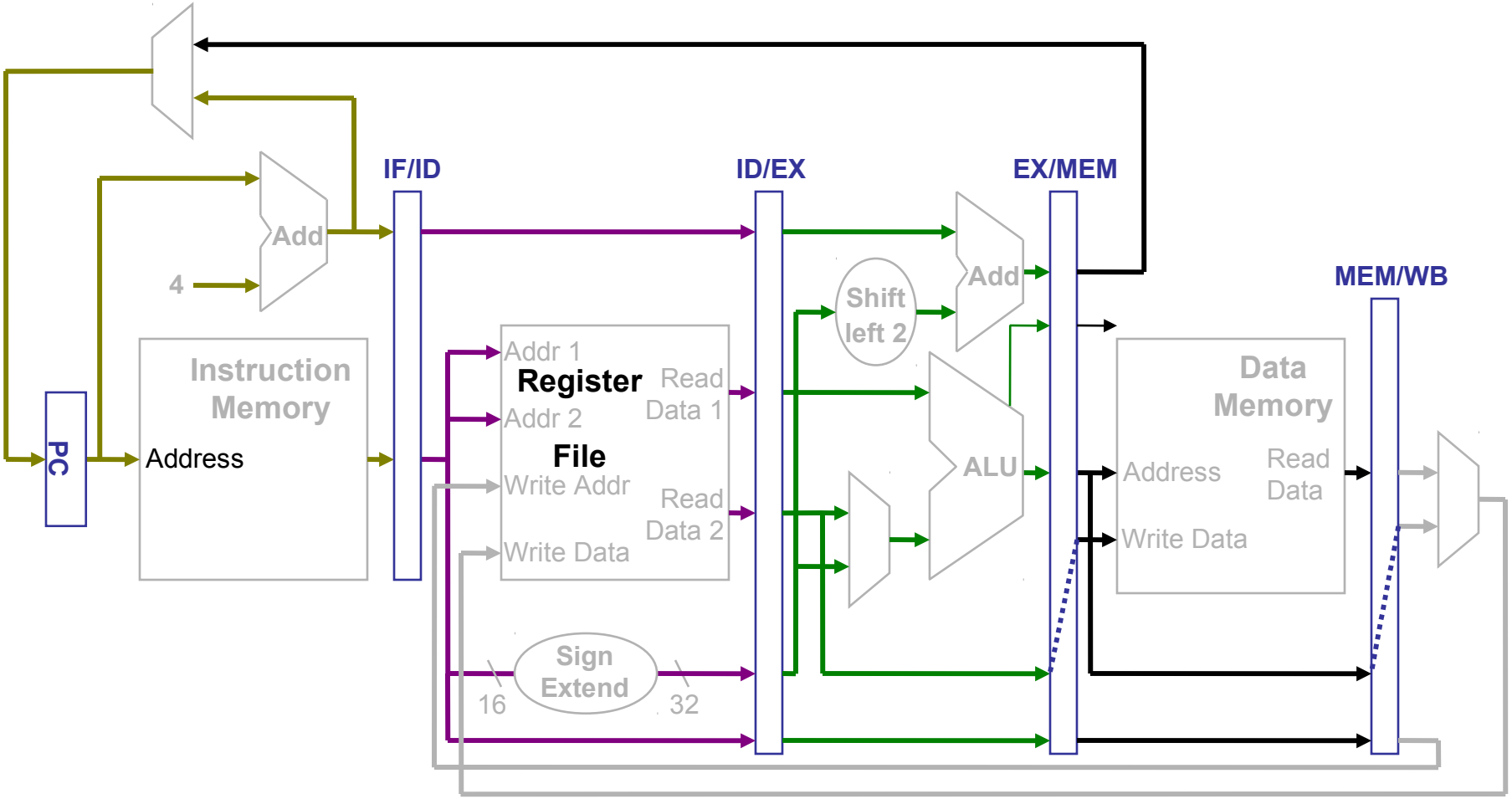
Load Word Example (Decode)



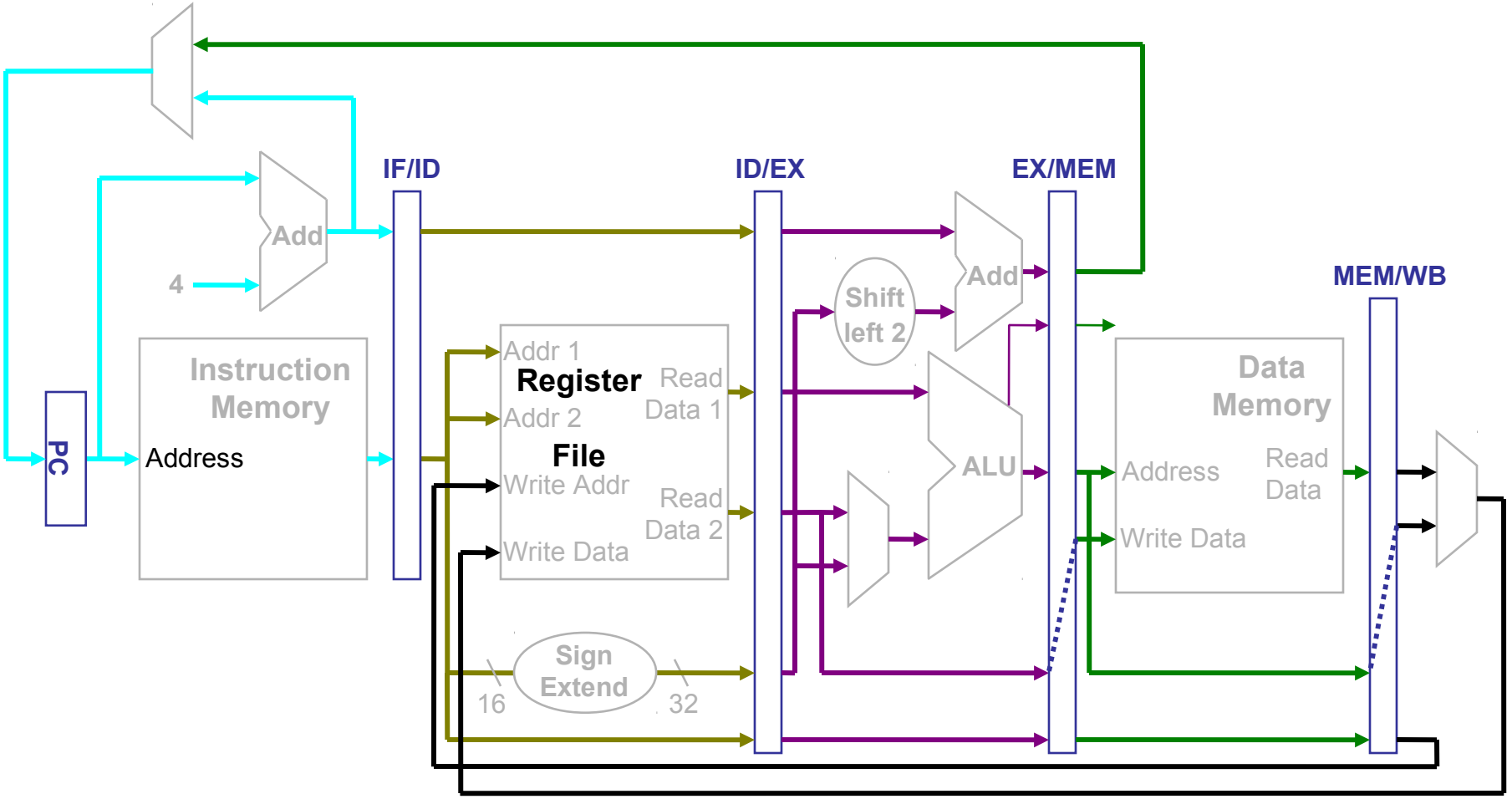
Load Word Example (Execute)



Load Word Example (Memory)

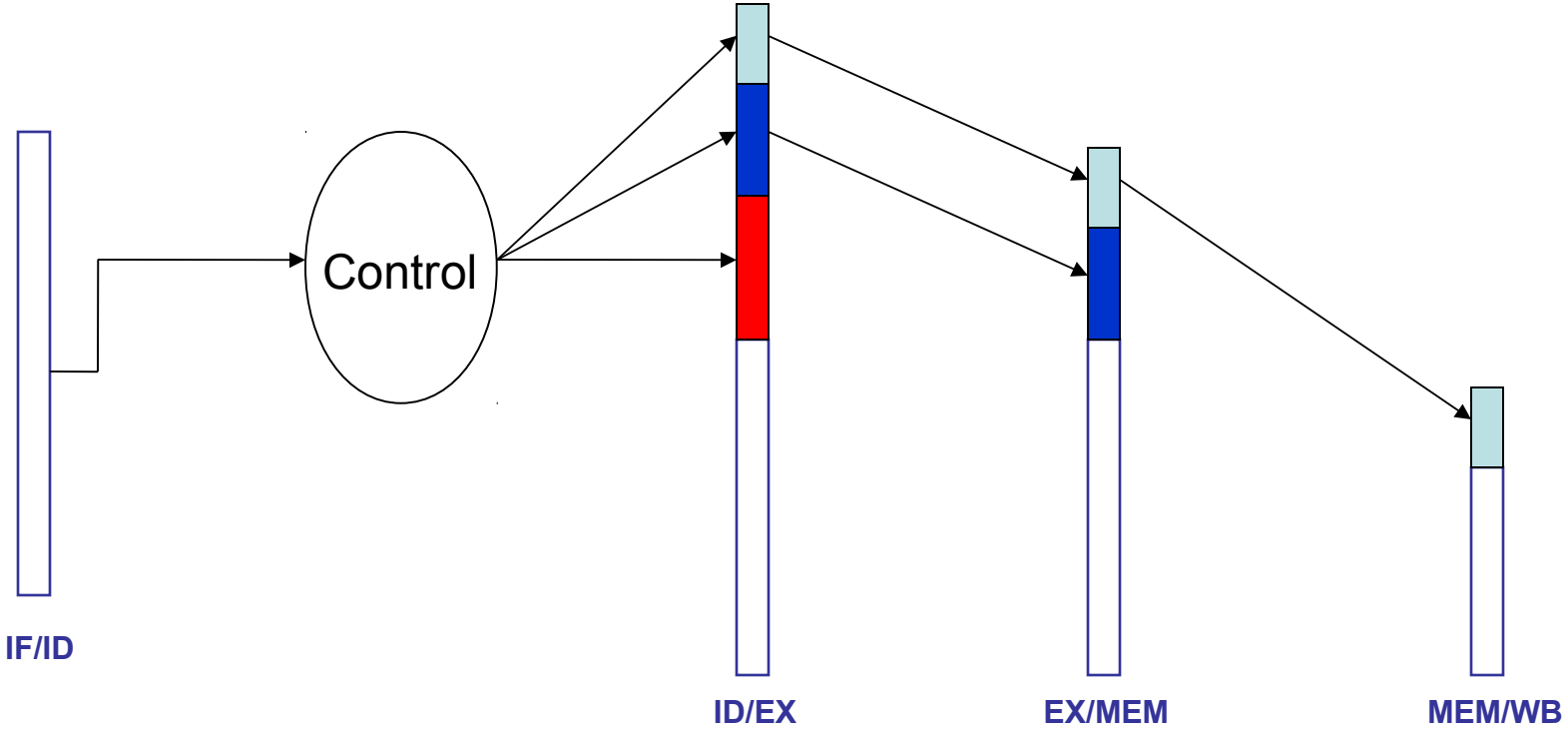


Load Word Example (Writeback)



Pipeline Control

- Pass control signals using the state registers
  - No need to pass after they are used



The Pipelined CPU With Control