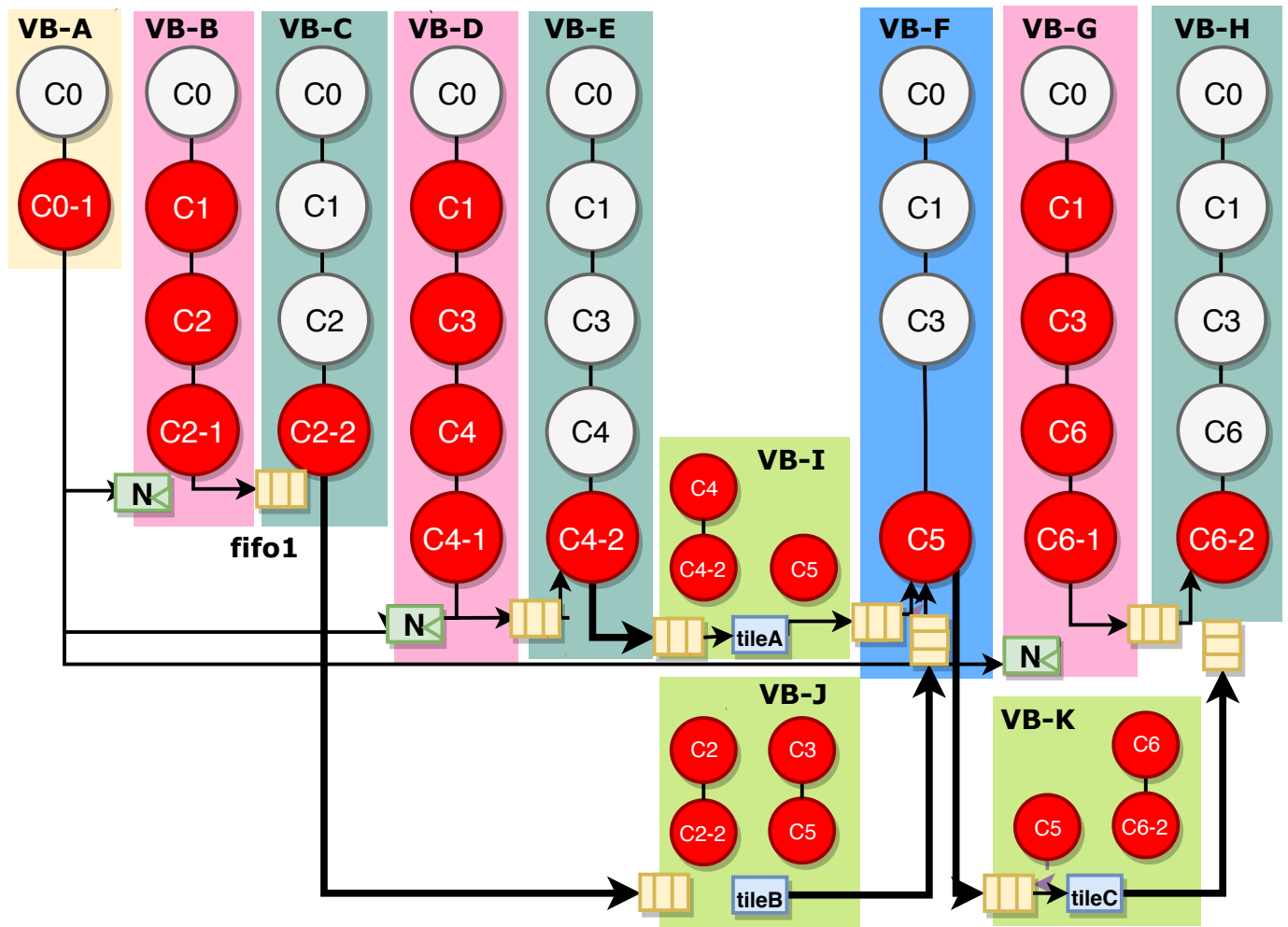
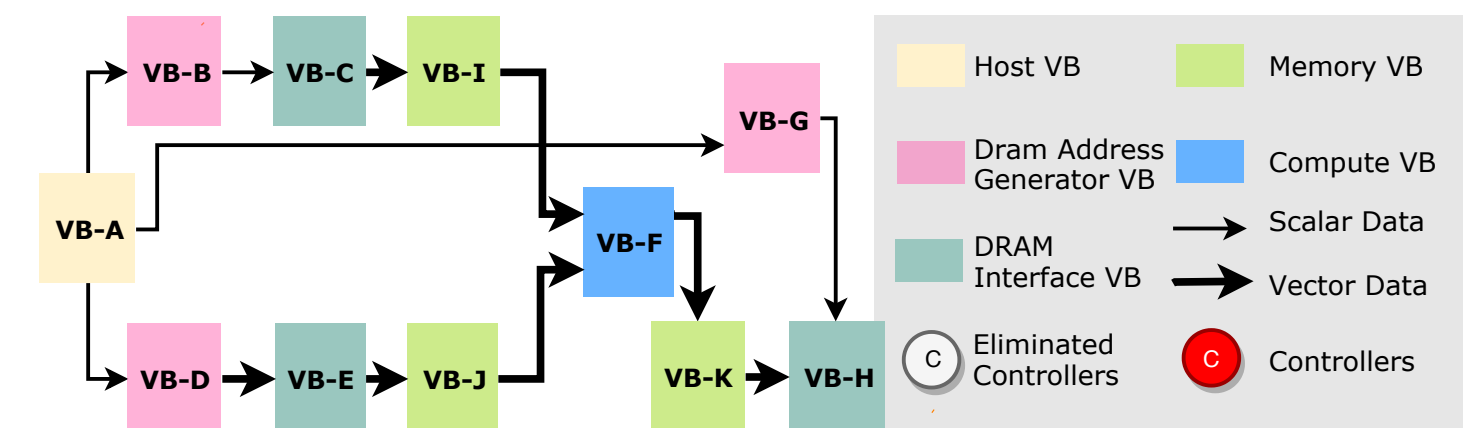


(a) Hierarchical dataflow graph representing communication with nested controllers. Using annotated input sizes, our compiler derives the activation counts of loop nests and logical links. (iter: iteration of a loop. activation: total number of iterations the controller will be active)



(b) VB Allocation. Controllers are duplicated and distributed to VBs. Controller signals are used to enqueue/dequeue inputs/outputs; the compiler eliminates duplicated controllers whose output signals are not used.



(c) VB dataflow graph. This program graph will be placed and routed on the global network.