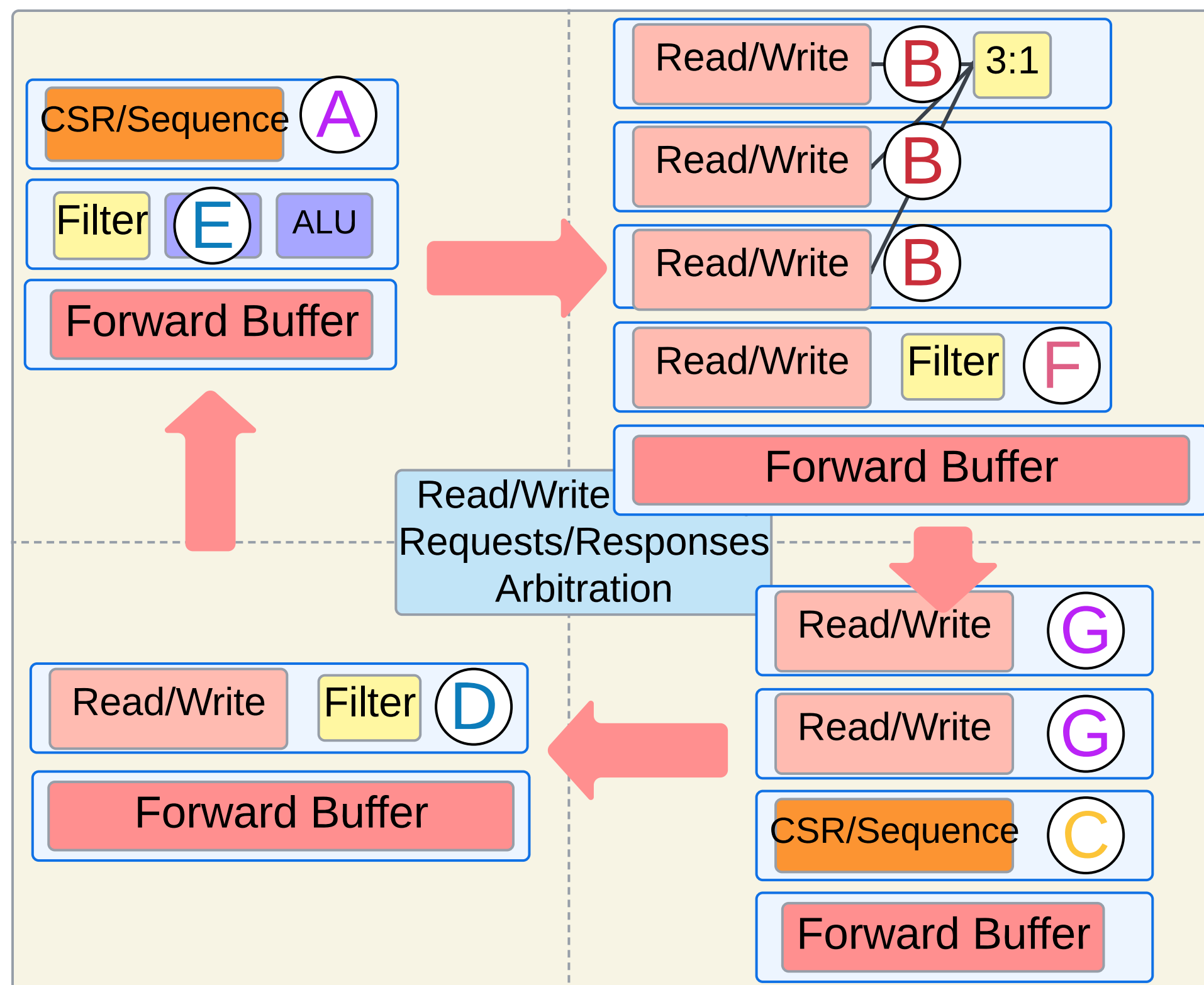


GraphBlox.Single.CC



.....

function Connected-Components-ShiloachVishkin(vertices, components)

change $\leftarrow \{0\}$

SCHEDULE Vertices

for $u \in \text{graphCSR}$ **do**

READ graphCSR->degree[u]

READ graphCSR->edgeIdx[u]

compU \leftarrow components[u]

READ components[u]

for $v \in \text{neighbor}[u]$ **do**

READ graphCSR->neighbor[u]

compV \leftarrow component[v]

READ components[v]

if(compU == compV) **do**

Continue

end if

compHigh \leftarrow compU > compV ? compU : compV

compLow \leftarrow compU + (compV - compHigh)

READ components[compHigh]

if(compHigh == components[compHigh]) **do**

change $\leftarrow \{1\}$

components[compHigh] \leftarrow compLow

WRITE components[compHigh]

end if

end for

end for

(A)

(B)

(C)

(D)

(E)

(F)

(G)