Algorithm for Compose operator required for channel merging. Satisfy timing requirements of the application while meeting the constraints set for the hardware resources available for CIUs.

Compose ( APerformance\_m, Aperformance\_n) <= Performance\_m req’d

When you merge two channels, there a possibility the second channel requests for slightly more hardware, so first add the necessary hardware. Then check the timing of both of the merged channels and confirm both still meet their timing constraints.

If (hardware resources == OK)

Then check if (timing constraints == OK)

--then you can check any other performance

BOOYAH