Homework 5: Automated P&R for Analog Circuits

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2. --HOW to Compile

In src/, enter the following command:

$ make

It will generate the executable file "hw5" in "../bin/".

If you want to remove it, please enter the following command:

$ make clean

--How to run

In src/ directory, enter the following command:

Usage: ../bin/[exe] [number of current sources] [def file path]

e.g.

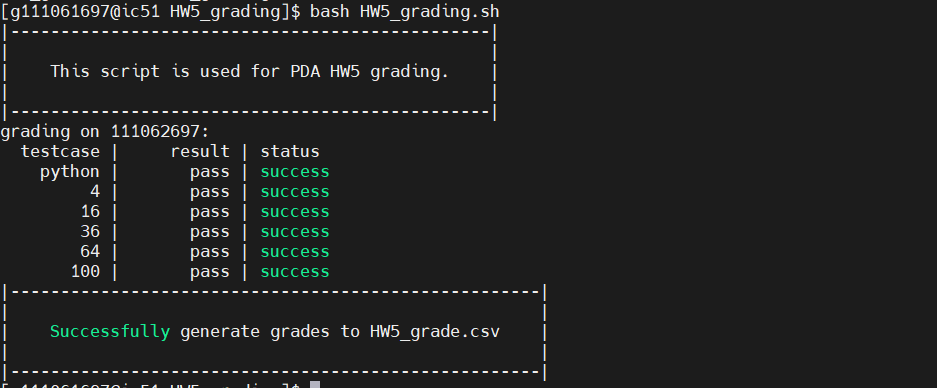
../bin/hw5 4 ../output/CS\_4.def

In "HW5/bin/", enter the following command:

Usage: ./[exe] [number of current sources] [def file path]

e.g.

./hw5 4 ../output/CS\_4.def



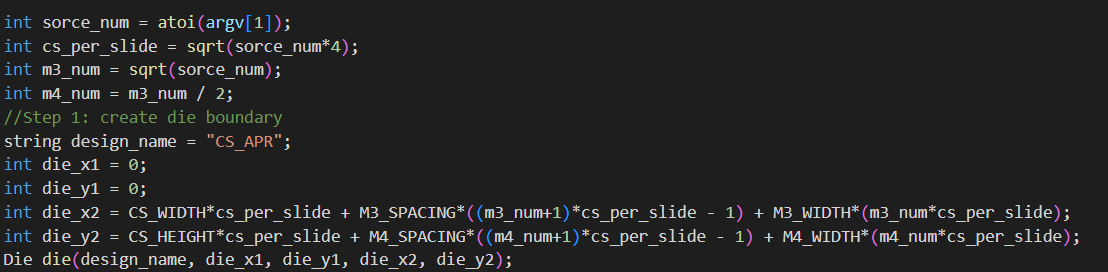
3.

Step1:

每行有n3\_num = source^(1/2)個M3, 每列有1/2\*M3個M4

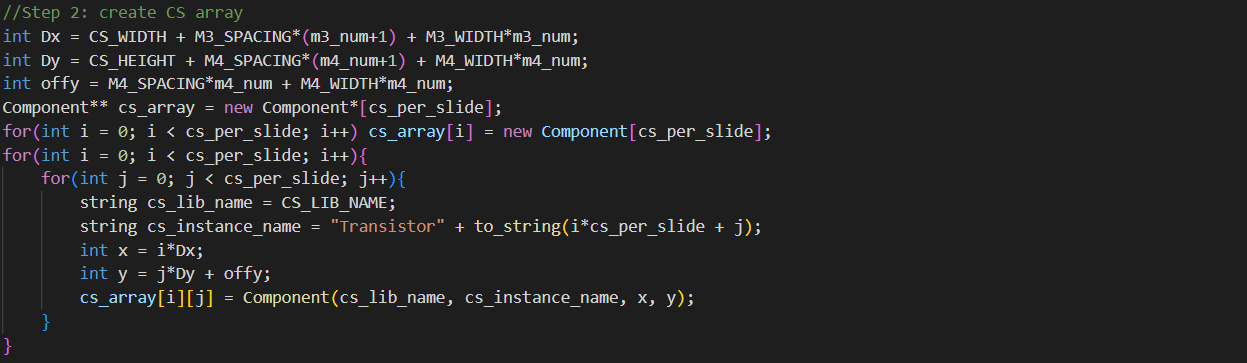
每邊有cs\_per\_slide = (source\*4)^(1/2)個CS

建立DIE的範圍, CS\_WIDTH + SPCEING + M3/4



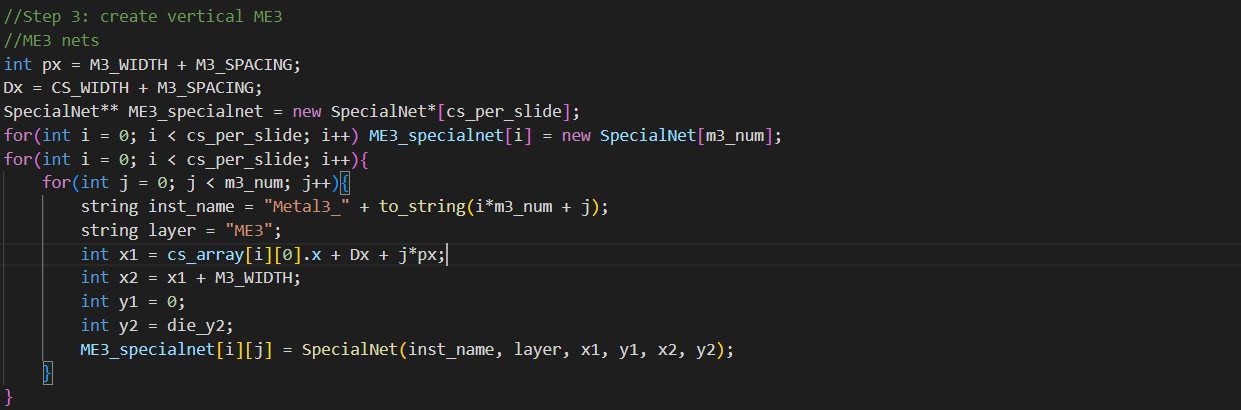
Step2:

建立CS的array, 共((source\*4)^(1/2))\* ((source\*4)^(1/2))個CS



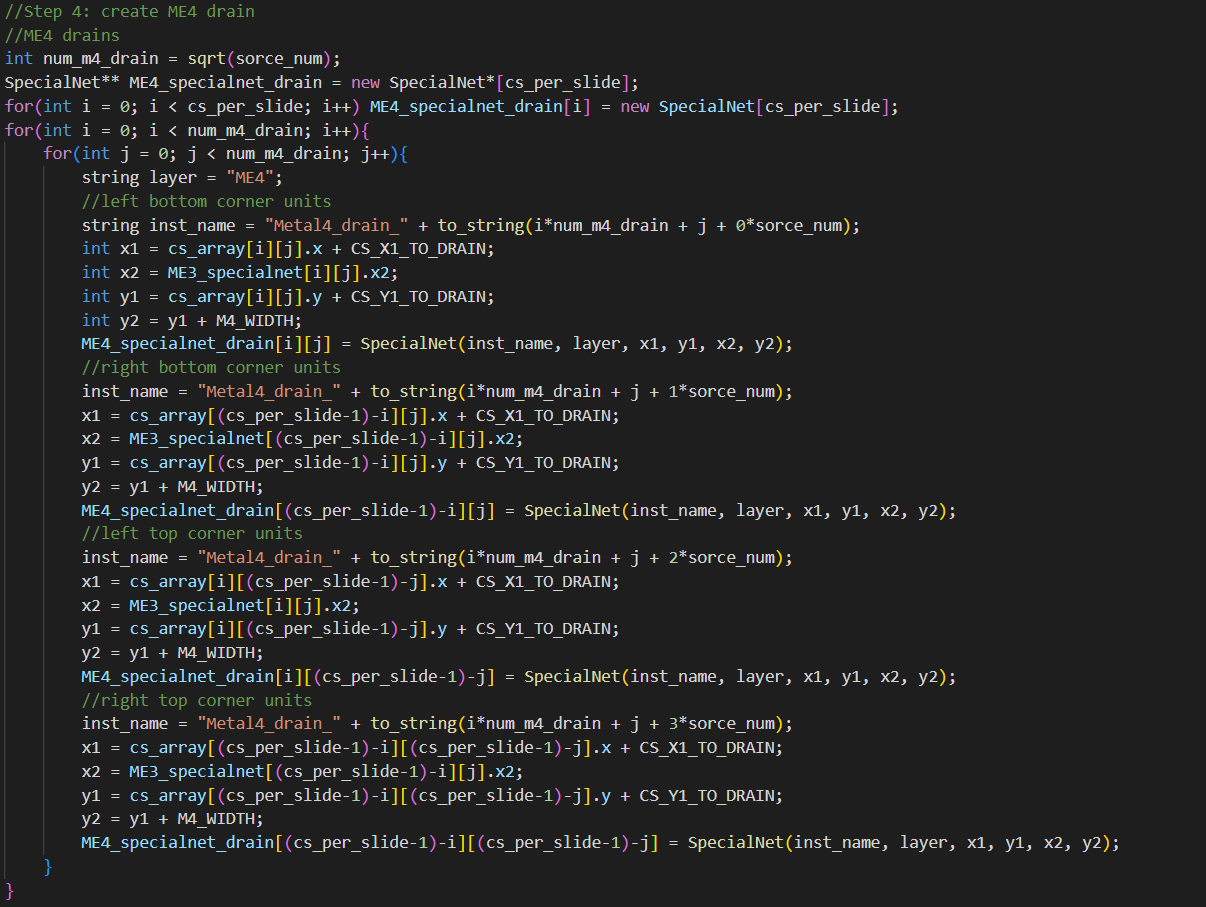
Step3:

建立ME3, 每行n3\_num個M3, 共cs\_per\_slide個行



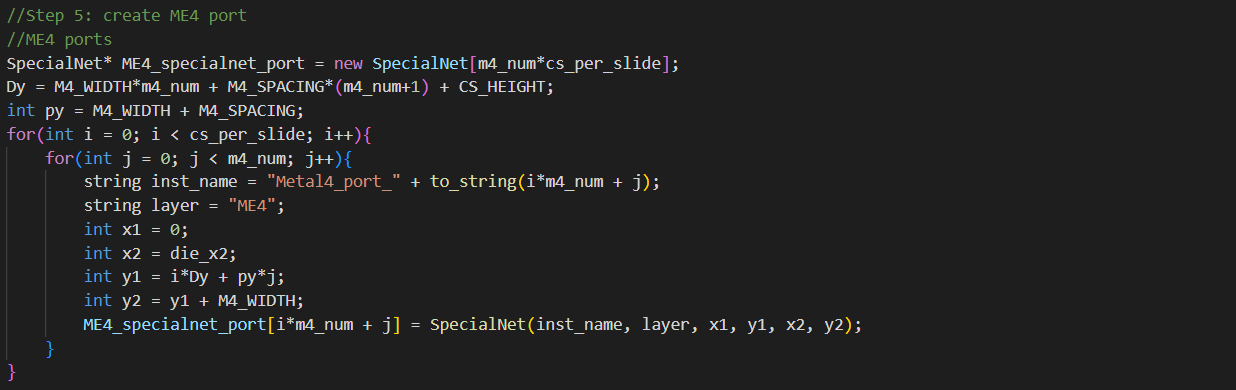
Step4:

建立ME4 drain, 分成左上左下右上右下四個區塊計算其座標, 每塊有CS\_per\_slide\*CS\_per\_slide個要計算



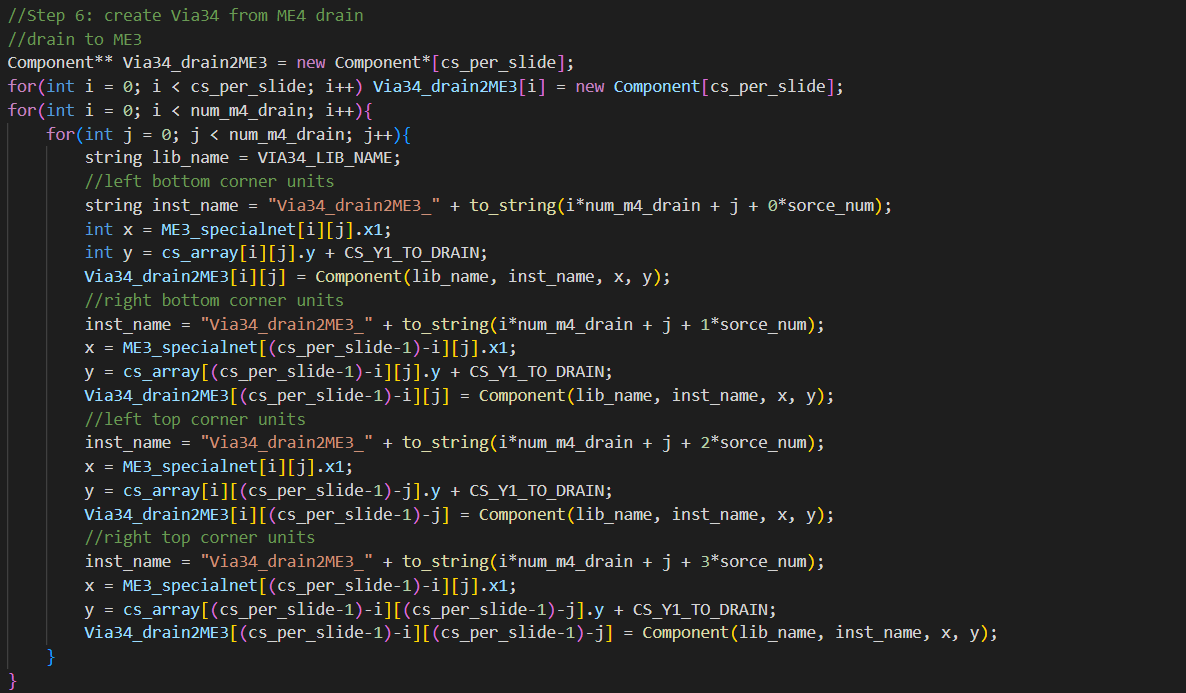
Step5:

建立ME4 port, 每列m4\_num個ME4, 共CS\_per\_slide列



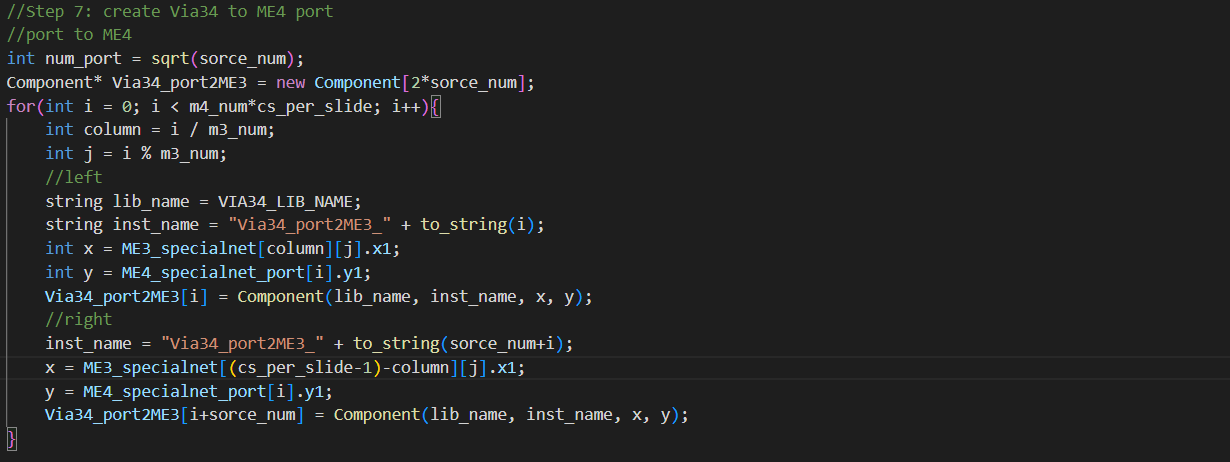
Step6:

建立ME4 drain到ME3的via, 左下由下而上由左而右, 其他跟他mirror



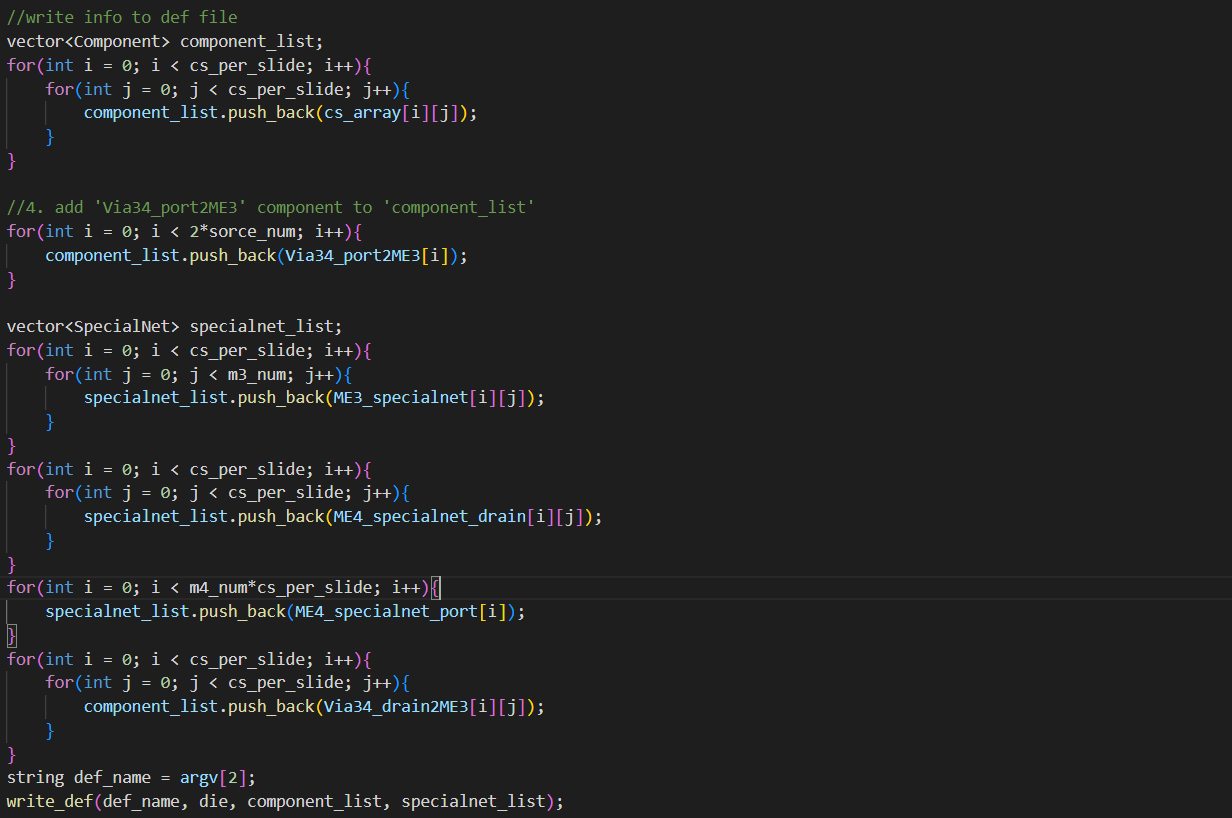
Strp7:

建立ME3到ME4 port的via, 分為左右兩塊，由下而上由外而內去計算



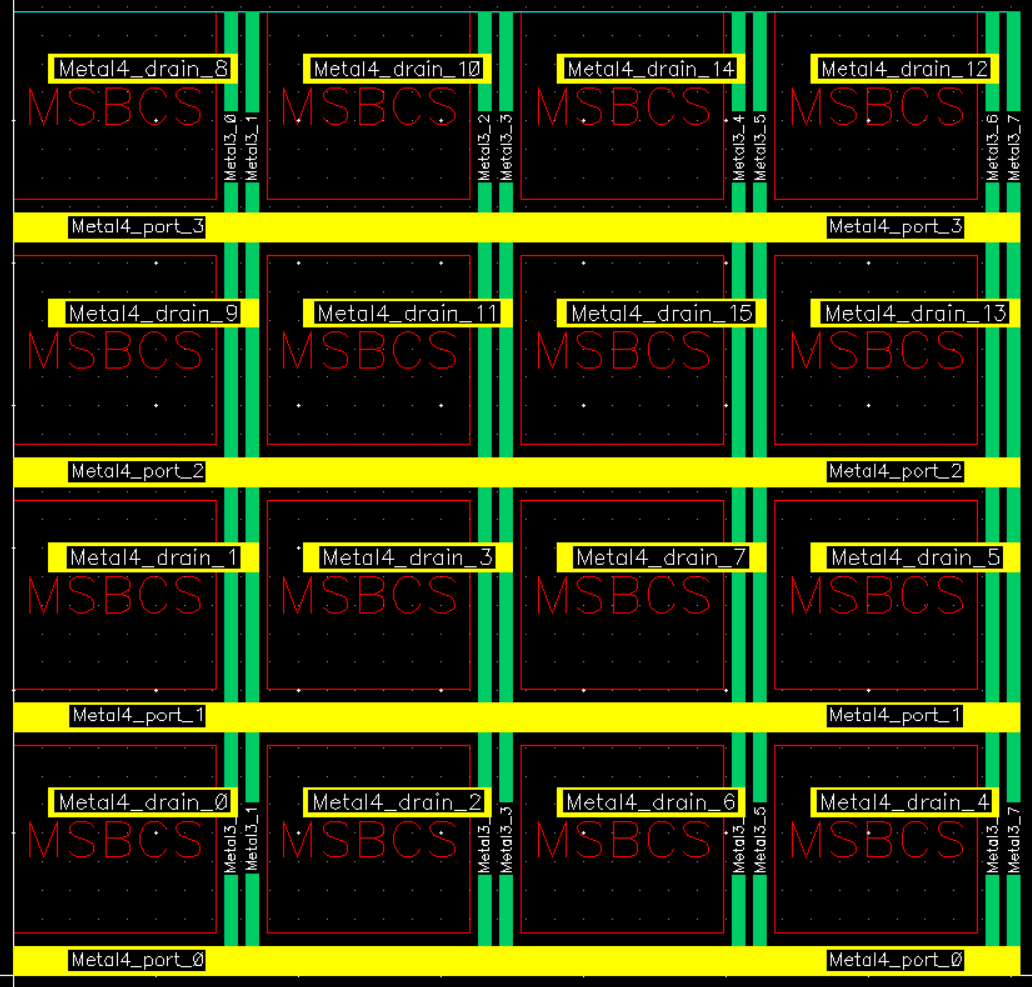
Step8:

寫入DEF檔



4.

Python:

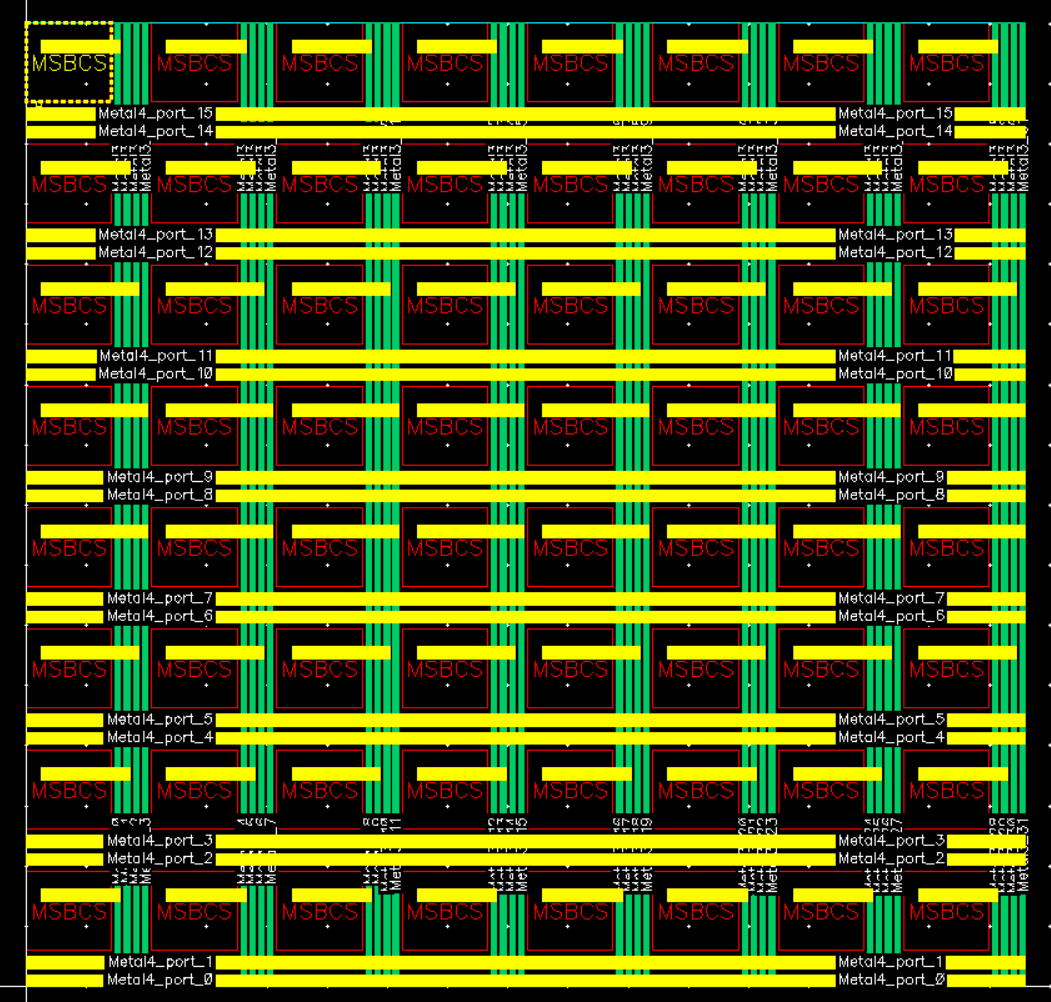


C++ :

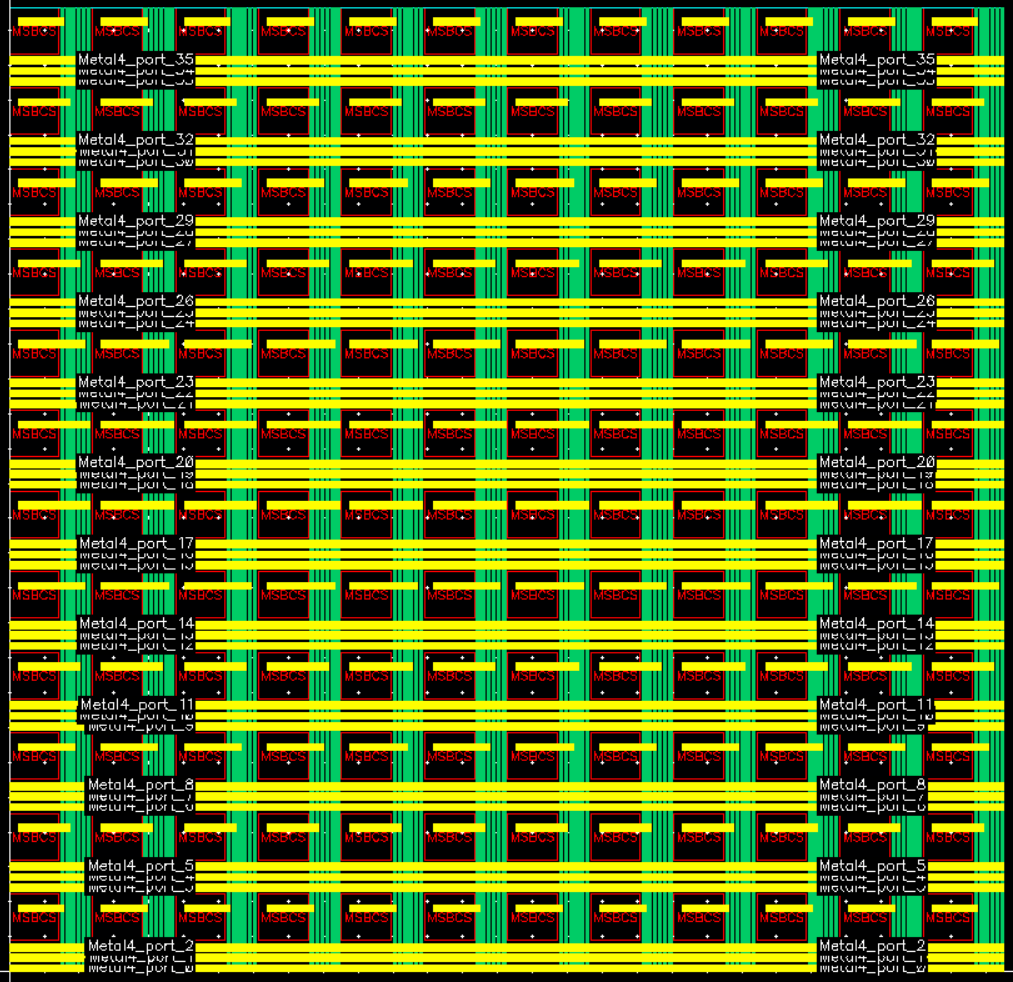
4 :



16 :



36 :



64 :



100 :

