

## Chapter 6 - OpenROAD GUI - TRAINING - Common

Course authors (Git file)



## 1 Guess and rebuild



# Challenge 1

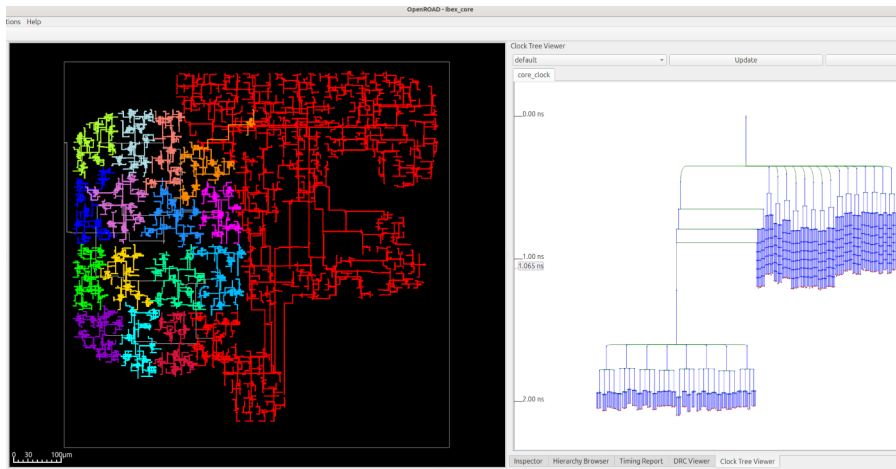


Figure 1: What is this?



## Challenge 2

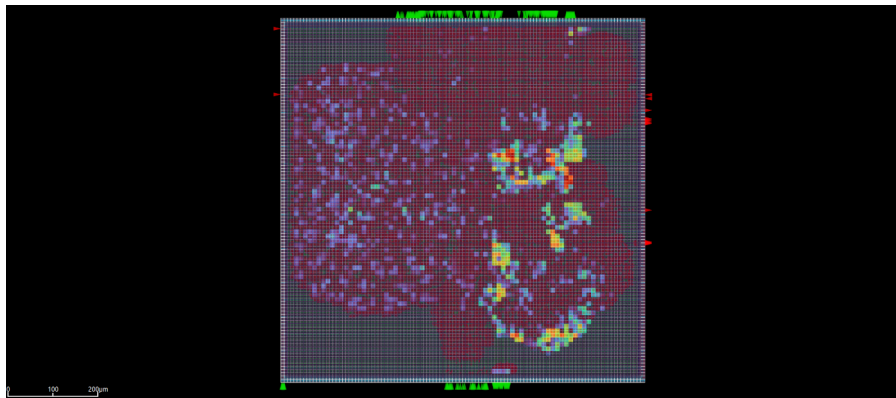
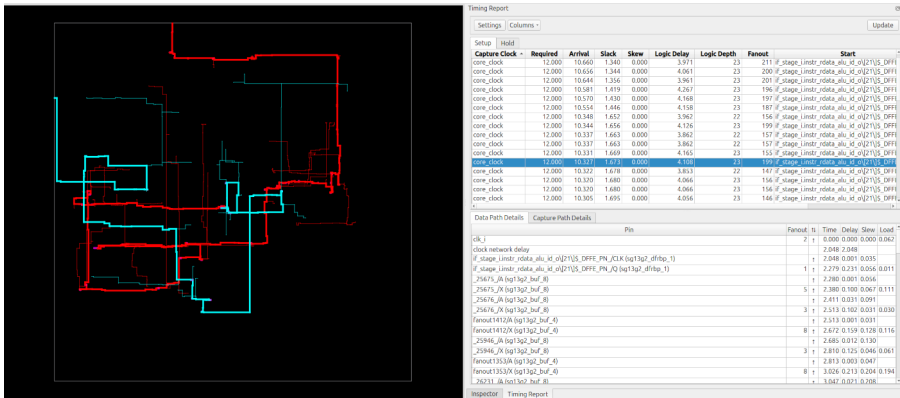


Figure 2: What is this?

Rebuild the picture with any design!



## Challenge 3



### Figure 3: What is this?

## Rebuild the picture with any design!

## Challenge 4

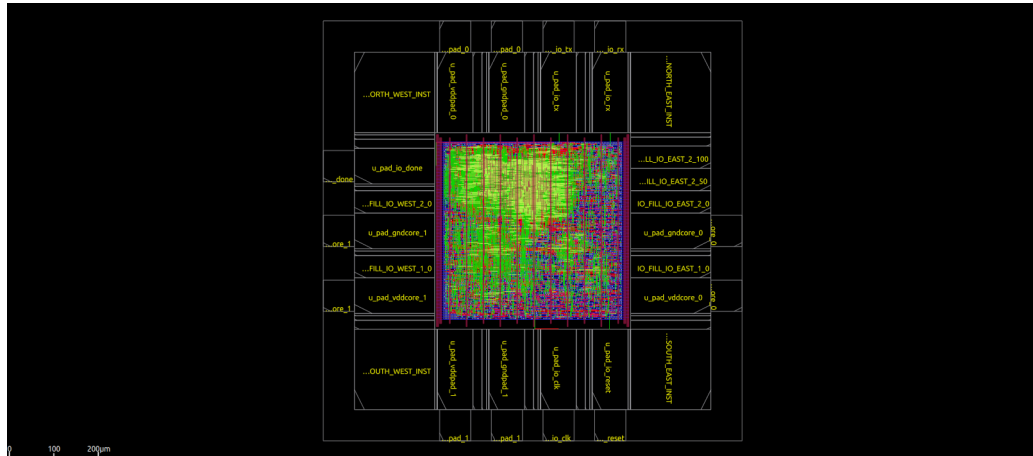


Figure 4: What is this?

# Solutions (of the challenges)

- 1 Ibex clocktree without most other layers (IHP PDK)
- 2 Ibex power density  $>15$  uW (IHP PDK)
- 3 Ibex single clock path with all layers off, but the timing paths (IHP PDK)
- 4 Masked aes without most metals and only pins names (IHP PDK)

