CS 516000 FPGA Architecture & CAD Final Project

1. 獨力完成 111062697 吳律穎
2.

How to compile：

In 111062697_final_project/ directory, enter the following command:

$ make

It will generate the executable file "topart" in "

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

$ make clean

How to execute：

In 111062697_final_project/ directory, enter the following command:

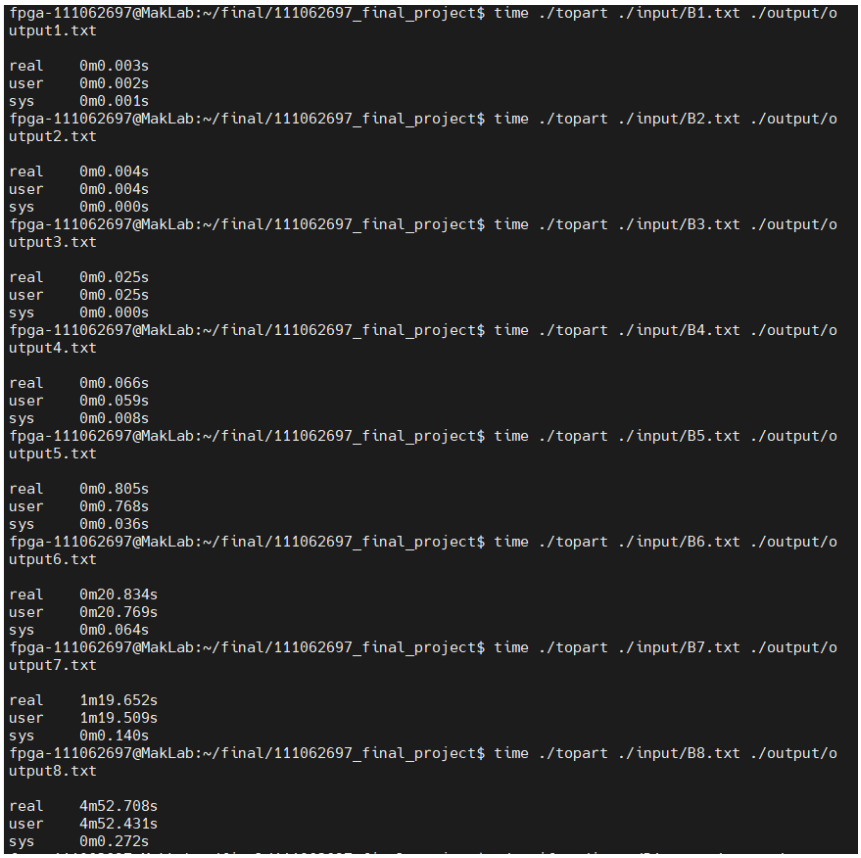
Usage: ./[exe] ./input/[input.txt] ./output/[output.txt]

e.g.

./topart ./input/B1.txt ./output/output1.txt

3. 執行結果: Fixed 和 Partition size 都有 pass, 且執行時間並未超過 10min

```
fpga-111062697@MakLab:~/final/111062697_final_project$ ./verify ./input/B1.txt ./output/output
1.txt
============================== Evaluator ==============================
Check Fixed node constraint pass.
Check Partition size constraints violation pass.
The total topology constraints voilations is 0
The sum of external degree is 45
=======================================================================
fpga-111062697@MakLab:~/final/111062697_final_project$ ./verify ./input/B2.txt ./output/output
2.txt
============================== Evaluator ==============================
Check Fixed node constraint pass.
Check Partition size constraints violation pass.
The total topology constraints voilations is 32
The sum of external degree is 258
=======================================================================
fpga-111062697@MakLab:~/final/111062697_final_project$ ./verify ./input/B3.txt ./output/output
3.txt
============================== Evaluator ==============================
Check Fixed node constraint pass.
Check Partition size constraints violation pass.
The total topology constraints voilations is 10
The sum of external degree is 648
=======================================================================
fpga-111062697@MakLab:~/final/111062697_final_project$ ./verify ./input/B4.txt ./output/output
4.txt
============================== Evaluator ==============================
Check Fixed node constraint pass.
Check Partition size constraints violation pass.
The total topology constraints voilations is 3
The sum of external degree is 1444
=======================================================================
fpga-111062697@MakLab:~/final/111062697_final_project$ ./verify ./input/B5.txt ./output/output
5.txt
============================== Evaluator ==============================
Check Fixed node constraint pass.
Check Partition size constraints violation pass.
The total topology constraints voilations is 197
The sum of external degree is 13549
=======================================================================
fpga-111062697@MakLab:~/final/111062697_final_project$ ./verify ./input/B6.txt ./output/output
6.txt
============================== Evaluator ==============================
Check Fixed node constraint pass.
Check Partition size constraints violation pass.
The total topology constraints voilations is 1872
The sum of external degree is 73090
=======================================================================
fpga-111062697@MakLab:~/final/111062697_final_project$ ./verify ./input/B7.txt ./output/output
7.txt
============================== Evaluator ==============================
Check Fixed node constraint pass.
Check Partition size constraints violation pass.
The total topology constraints voilations is 3471
The sum of external degree is 145254
=======================================================================
fpga-111062697@MakLab:~/final/111062697_final_project$ ./verify ./input/B8.txt ./output/output
8.txt
============================== Evaluator ==============================
Check Fixed node constraint pass.
Check Partition size constraints violation pass.
The total topology constraints voilations is 8645
The sum of external degree is 295646
```



4. Describing the details

   演算法的部分依照 Reference paper 來實作，可是沒有實現 B 部分的 Candidate FPGA-driven Coarsening，其餘部分都有做出來