HO CHI MINH CITY NATIONAL UNIVERSITY
HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY
FACULTY OF COMPUTER SCIENCE AND ENGINEERING

REPORT

LAB 4: Review processing to practice

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1. Modifying Netlist to make a “bug” intentionally

```
  CLKAND2X12 g7277__8428(.A (n_25), .B (n_2), .Y (n_92));
  INVX2 g7299(.A (n_8), .Y (n_26));
  INVX2 g7300(.A (n_8), .Y (n_57));
  NAND2X2 g7274__5526(.A (F_present_state[2]), .B (F_present_state[0]),
       .Y (n_29));
  OR2X4 g7261__6783(.A (F_present_state[3]), .B (F_present_state[1]),
       .Y (n_184));
  NOR2X4 g7254__3680(.A (a_present_state[3]), .B (a_present_state[1]),
       .Y (n_9));
  NOR2X4 g7276__1617(.A (F_present_state[2]), .B (F_present_state[0]),
       .Y (n_100));
  CLKINVX16 g7293(.A (n_1), .Y (n_11));
  NAND2X4 g7280__2802(.A (F_present_state[3]), .B (F_present_state[1]),
       .Y (n_195));
  CLKINVX8 g7303(.A (a_present_state[0]), .Y (n_2));
  CLKINVX12 g7296(.A (a_present_state[2]), .Y (n_1));
  CLKINVX8 g7301(.A (a_present_state[4]), .Y (n_8));
  INVX1 g7281(.A (flick), .Y (n_0));
  INVX2 g7282(.A (F_present_state[2]), .Y (n_3));
  CLKINVX6 g7298(.A (a_present_state[1]), .Y (n_25));
  CLKINVX8 g7283(.A (a_present_state[3]), .Y (n_28));
  INVX3 g7304(.A (F_present_state[1]), .Y (n_173));
-- INSERT --
```

```
  CLKAND2X12 g7277__8428(.A (n_25), .B (n_2), .Y (n_92));
  INVX2 g7299(.A (n_8), .Y (n_26));
//INVX2 g7300(.A (n_8), .Y (n_57));
  BUFX2 g7300(.A (n_8), .Y (n_57));
  NAND2X2 g7274__5526(.A (F_present_state[2]), .B (F_present_state[0]),
       .Y (n_29));
  OR2X4 g7261__6783(.A (F_present_state[3]), .B (F_present_state[1]),
       .Y (n_184));
  NOR2X4 g7254__3680(.A (a_present_state[3]), .B (a_present_state[1]),
       .Y (n_9));
  NOR2X4 g7276__1617(.A (F_present_state[2]), .B (F_present_state[0]),
       .Y (n_100));
  CLKINVX16 g7293(.A (n_1), .Y (n_11));
  NAND2X4 g7280__2802(.A (F_present_state[3]), .B (F_present_state[1]),
       .Y (n_195));
  CLKINVX8 g7303(.A (a_present_state[0]), .Y (n_2));
  CLKINVX12 g7296(.A (a_present_state[2]), .Y (n_1));
  CLKINVX8 g7301(.A (a_present_state[4]), .Y (n_8));
  INVX1 g7281(.A (flick), .Y (n_0));
  INVX2 g7282(.A (F_present_state[2]), .Y (n_3));
  CLKINVX6 g7298(.A (a_present_state[1]), .Y (n_25));
  CLKINVX8 g7283(.A (a_present_state[3]), .Y (n_28));
-- INSERT --
```

Changing the inverter INVX2 g7300 into BUFX2 g7300.

2. Debug non-equivalent point

```
0
// Command: add_compared_points -all
// 26 compared points added to compare list
0
// Command: compare
```

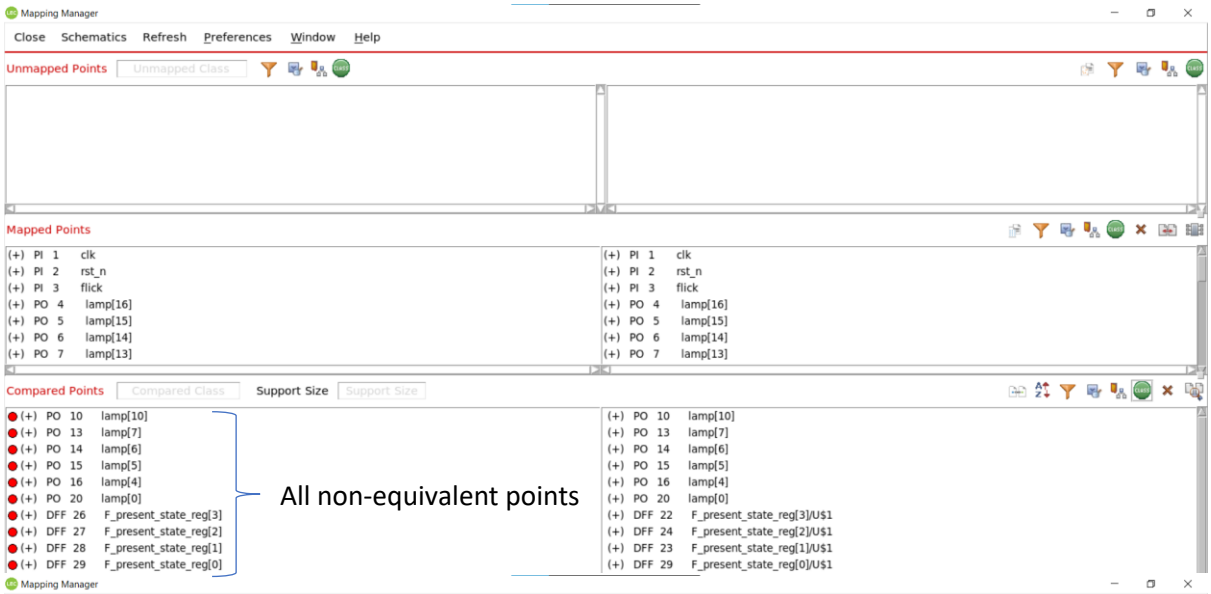
Compared points	PO	DFF	Total
Equivalent	11	5	16
Non-equivalent	6	4	10

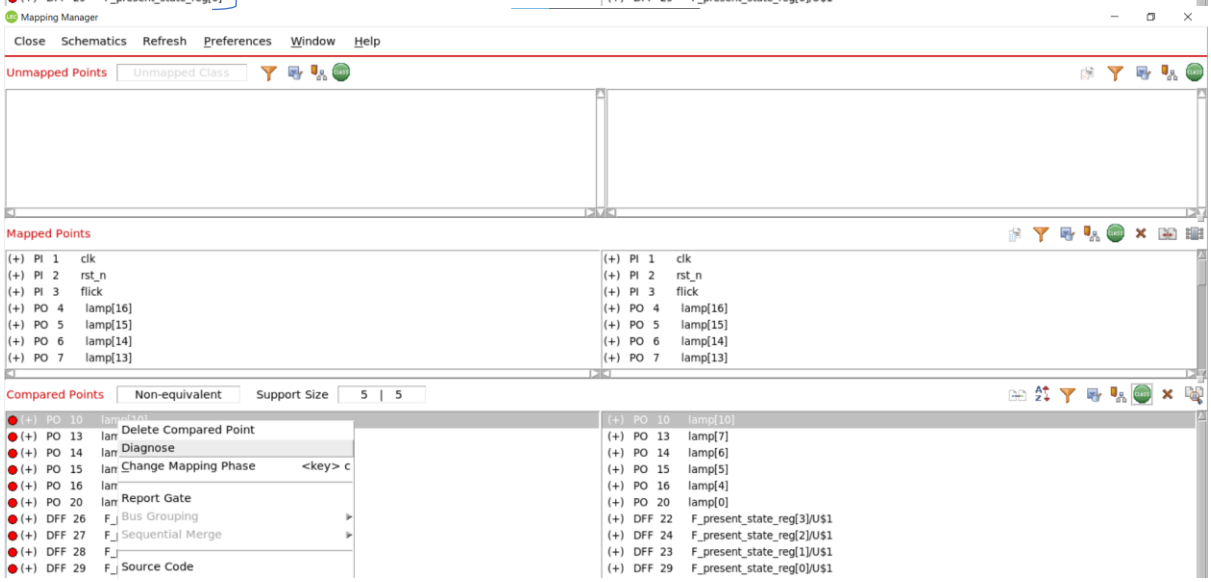
```
0
```

Compare done!

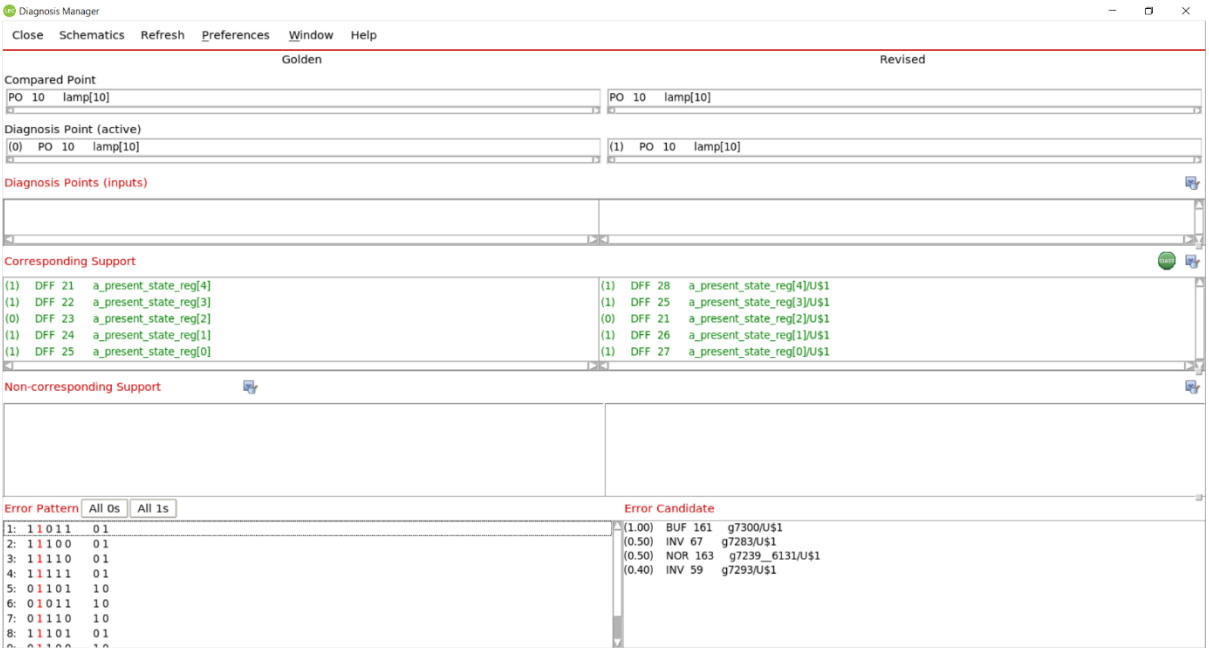
Non-equivalent point detected!

3. Mapping manager

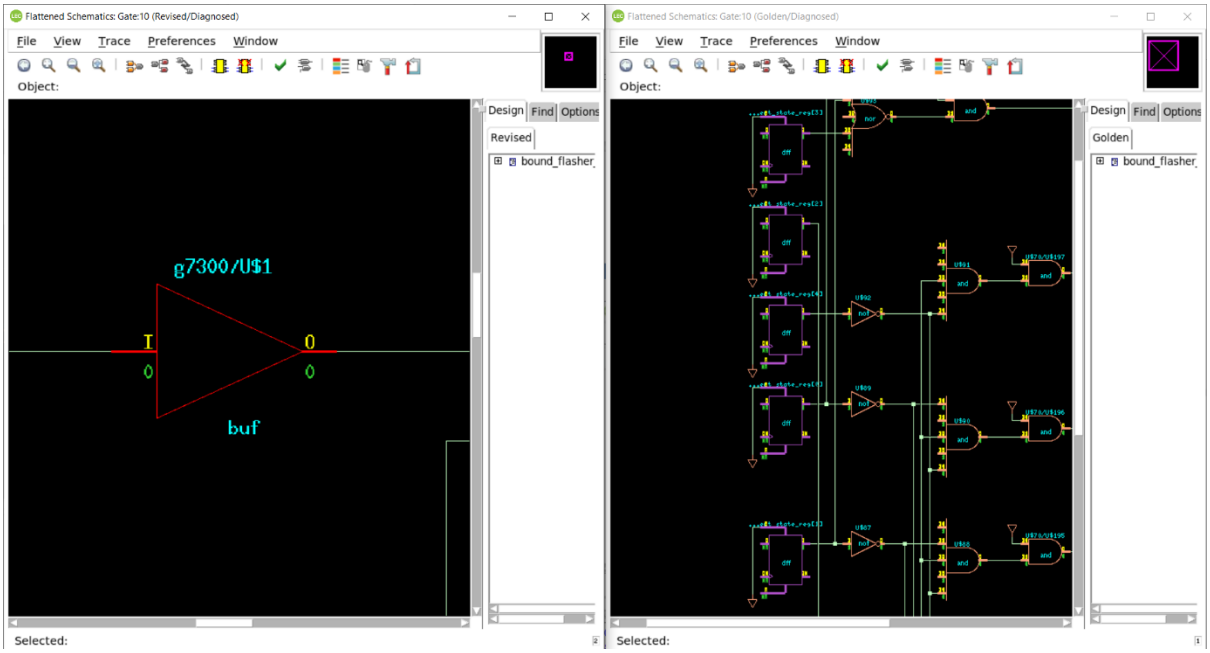


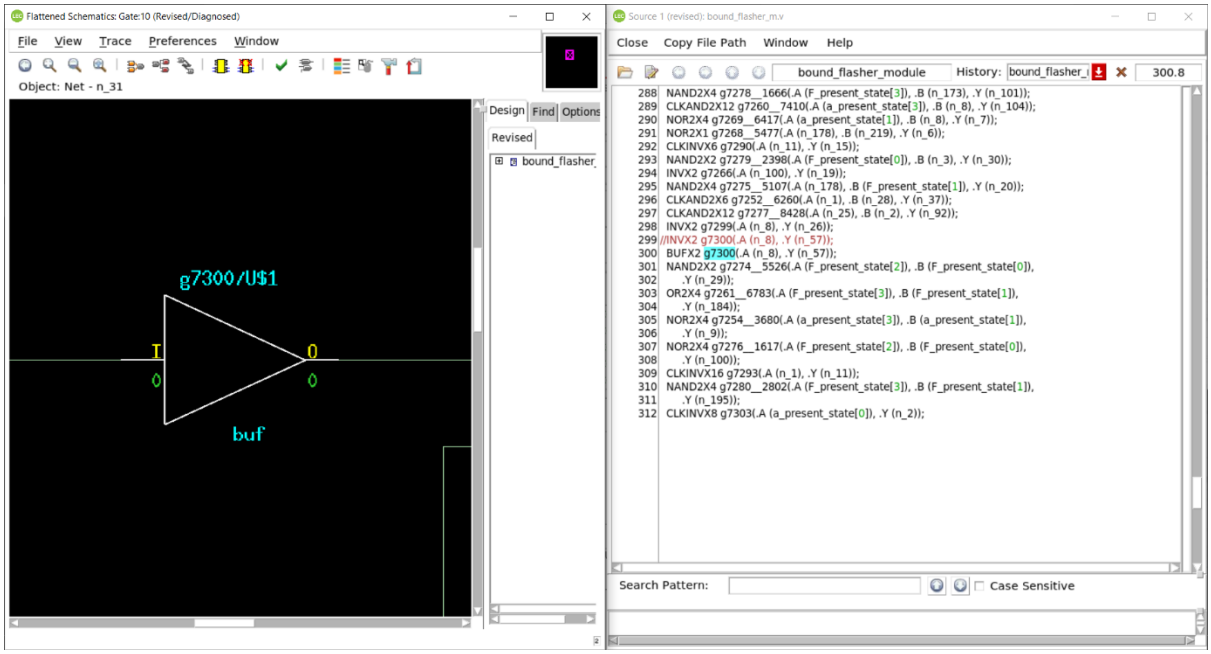


4. Diagnosis manager



5. Schematic viewer





The Schematic shows us the point that we previously modified.