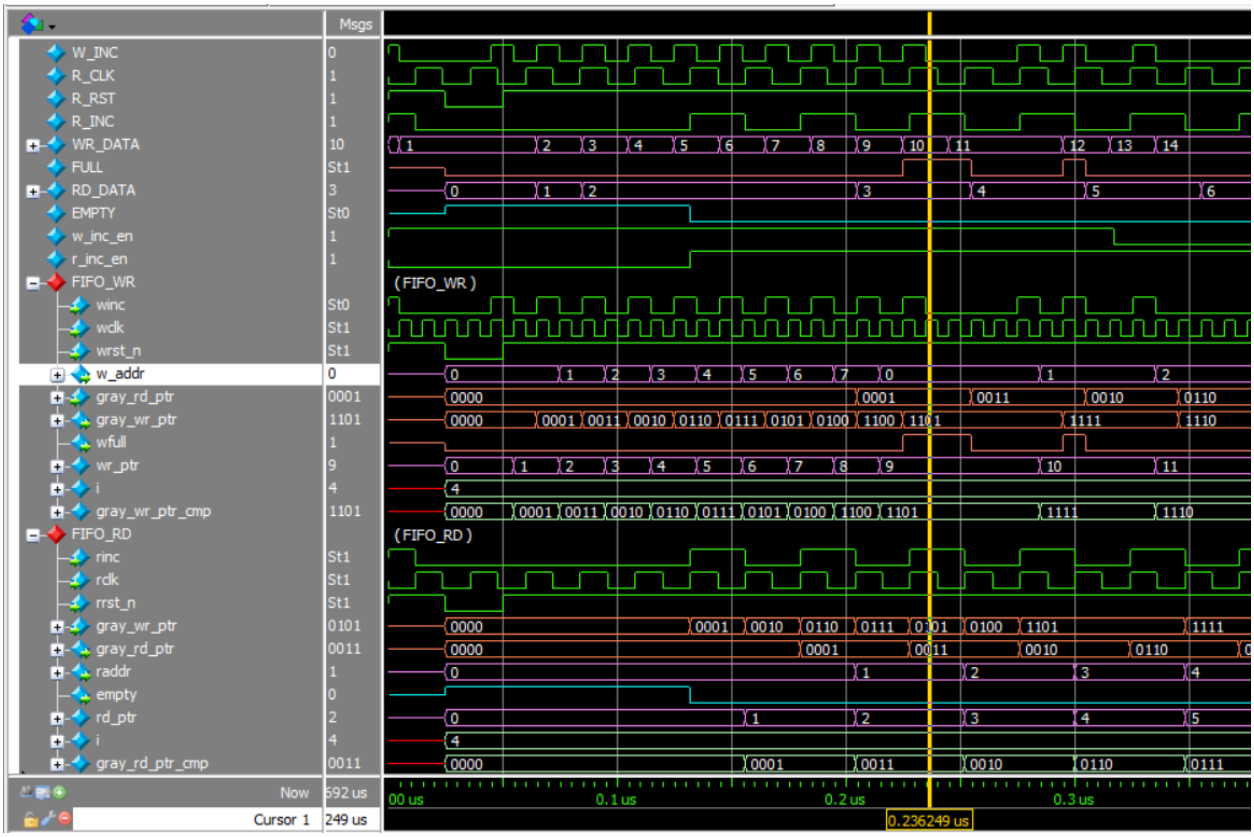
FIFO

Test case 1: testing FIFO full case



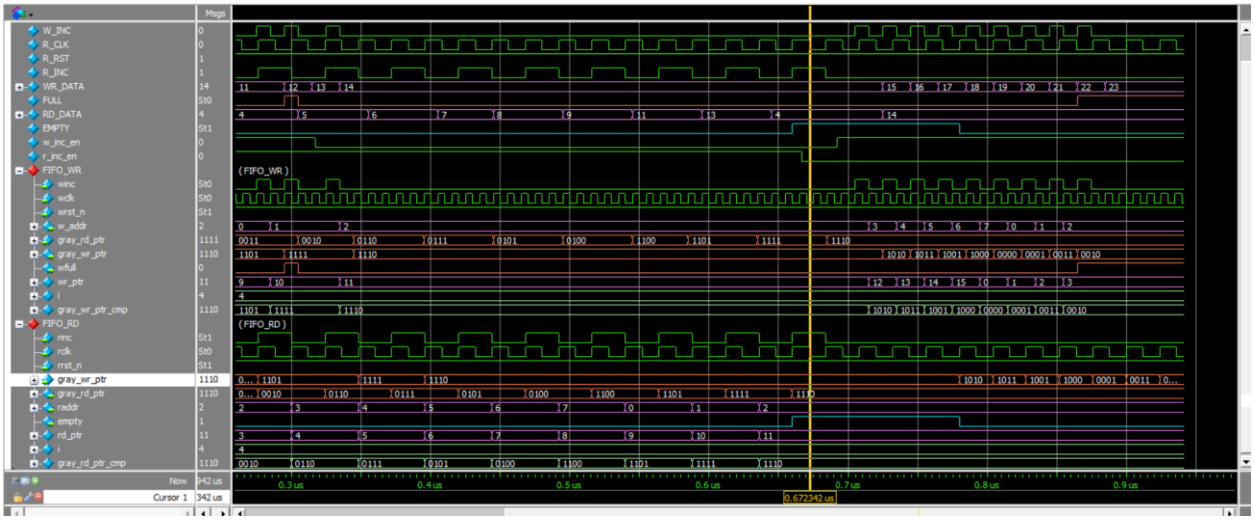
IN FIFO_WR BLOCK:

WR_PTR = 9 → gray_wr_ptr = 1101

RD_PTR = 1 → gray_rd_ptr = 0001

- At this point, FIFO FULL flag is up to prevent overwriting data.
- Also reading operation didn't stop and when FULL flag is down writing operation started again

Test case 12: testing FIFO embty case



- At this case I turned off w_inc_en to prevent writing and read till empty flag

IN FIFO_RD BLOCK:

WR_PTR =11 → gray_wr_ptr = 1110

RD_PTR = 11 → gray_rd_ptr = 1110

- At this point, FIFO embty flag is up to prevent reading wrong data.
- Also we can see writing operation begin again after I raised wr_inc_en
  And then empty flag down again.