



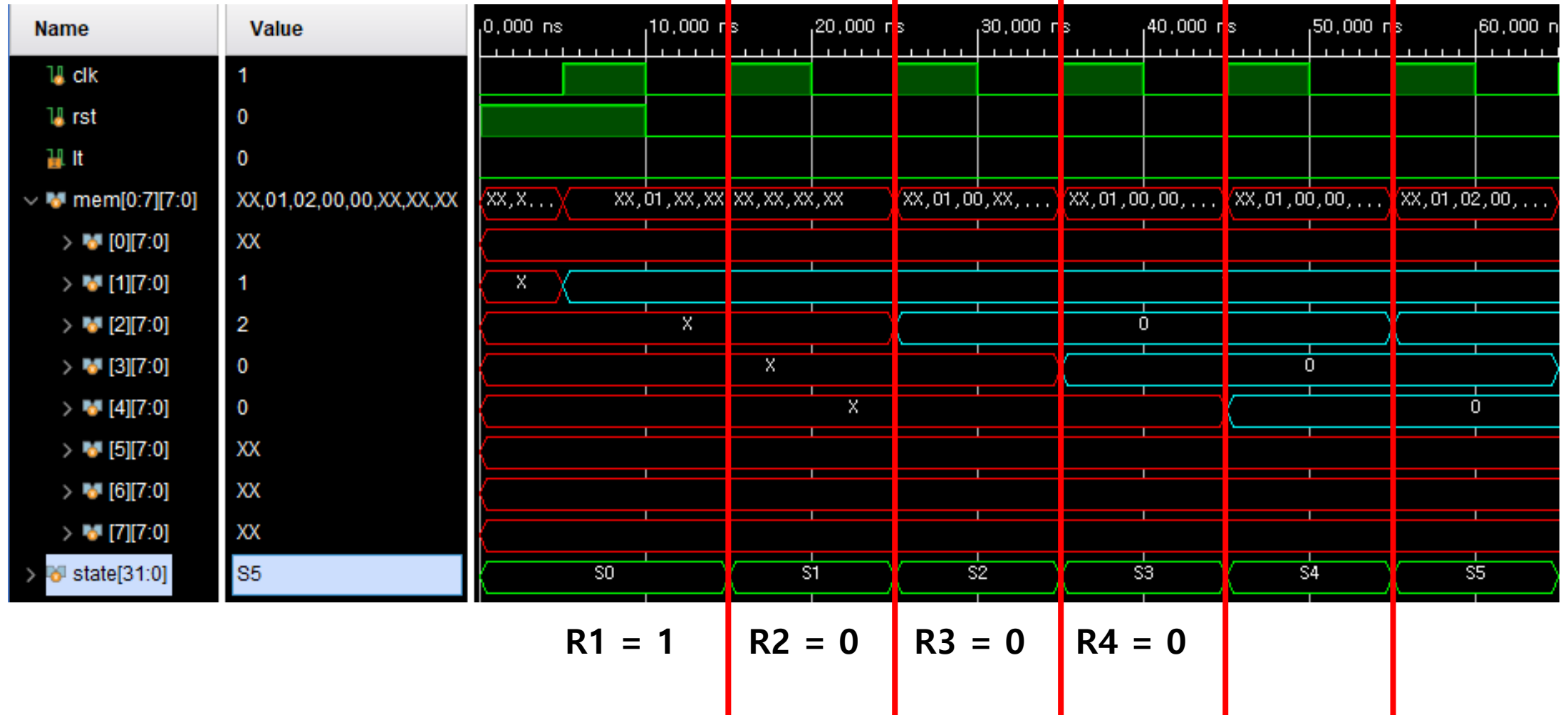
대한상공회의소
서울기술교육센터

과제2 시뮬레이션 결과

대한상공회의소 AI 시스템 반도체 2기

최현우

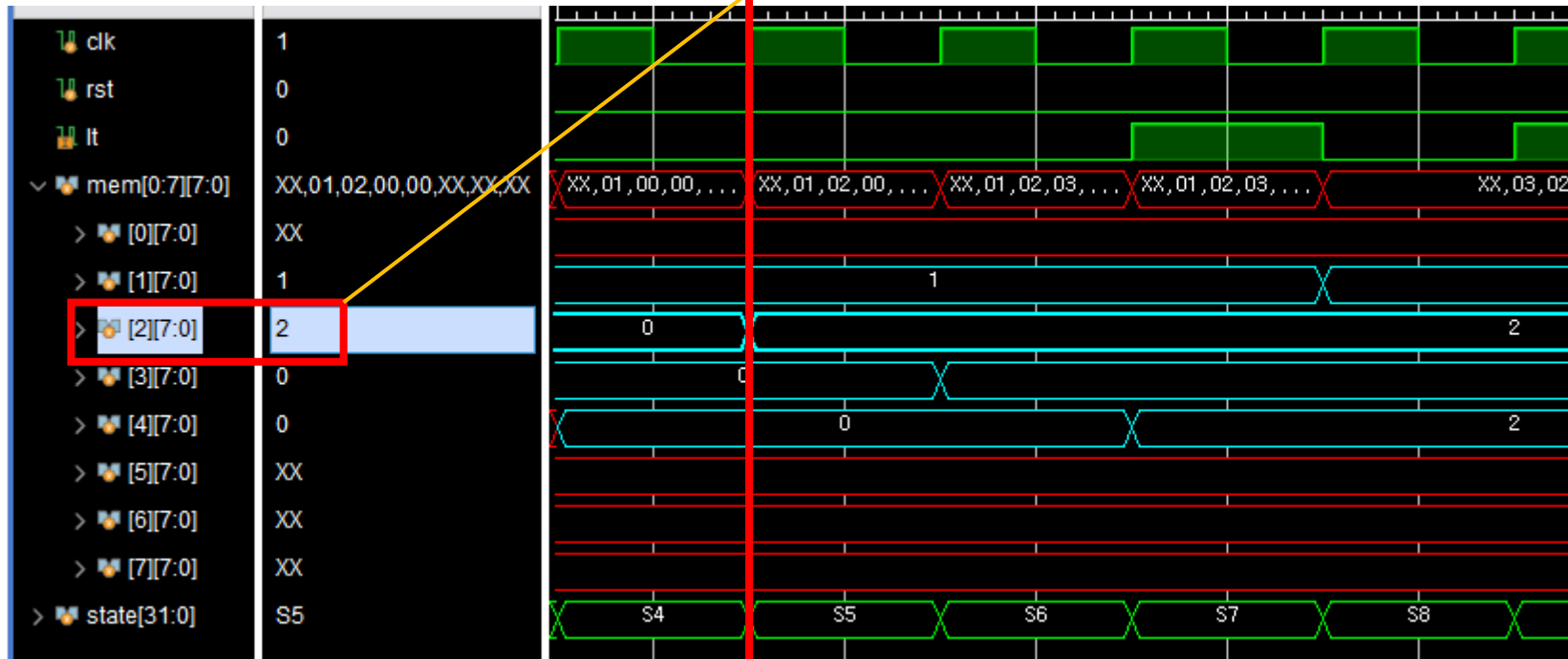
초기화: S0~S3



Register File은 순차회로로, 다음 클럭에 값이 반영된다

S4: $R2 = R1 + R1$

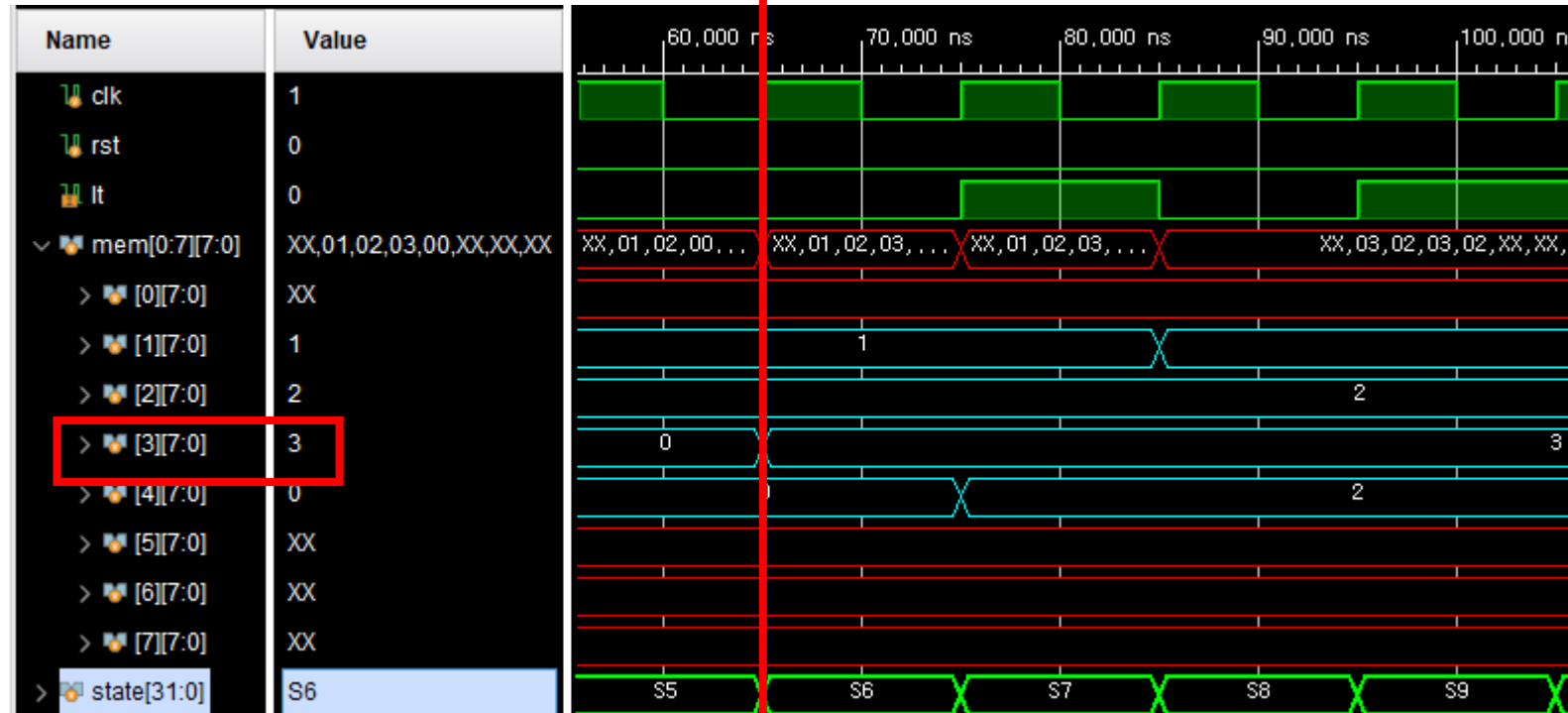
1Clk 뒤에 덧셈의 결과가 R2에
Write된다



$$R1 = 1$$

$$R2 = 1 + 1$$

S5: $R3 = R2 + R1$

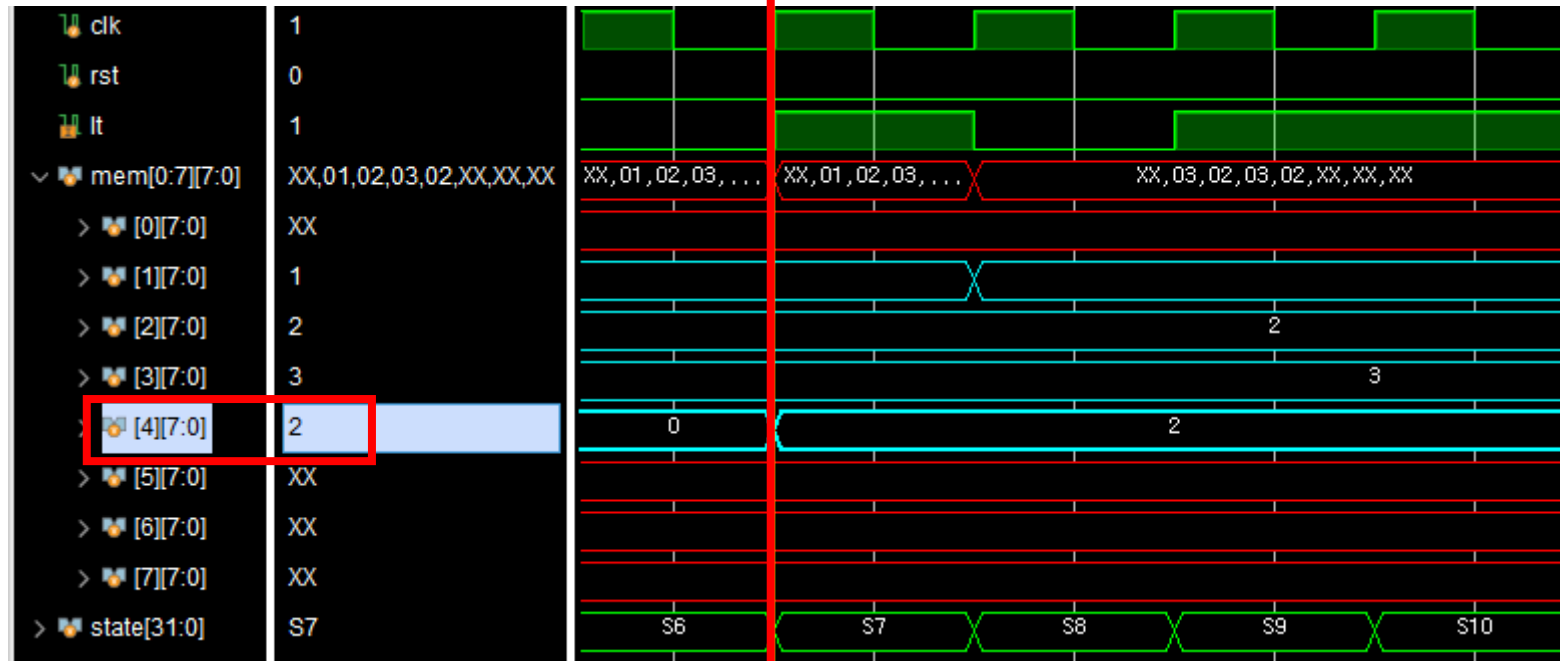


$R2 = 2$

$R1 = 1$

$R3 = 3$

S6: $R4 = R3 - R1$

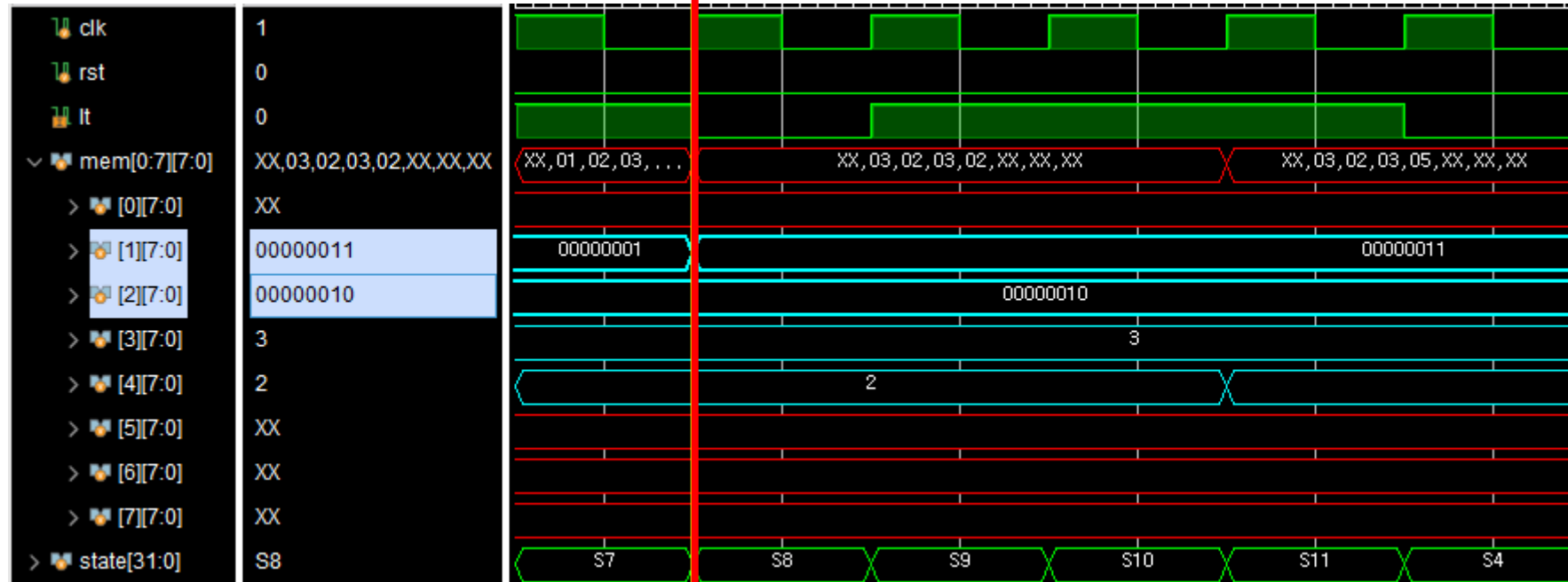


$R3 = 3$

$R1 = 1$

$R4 = 2$

S7: $R1 = R1 \mid R2$

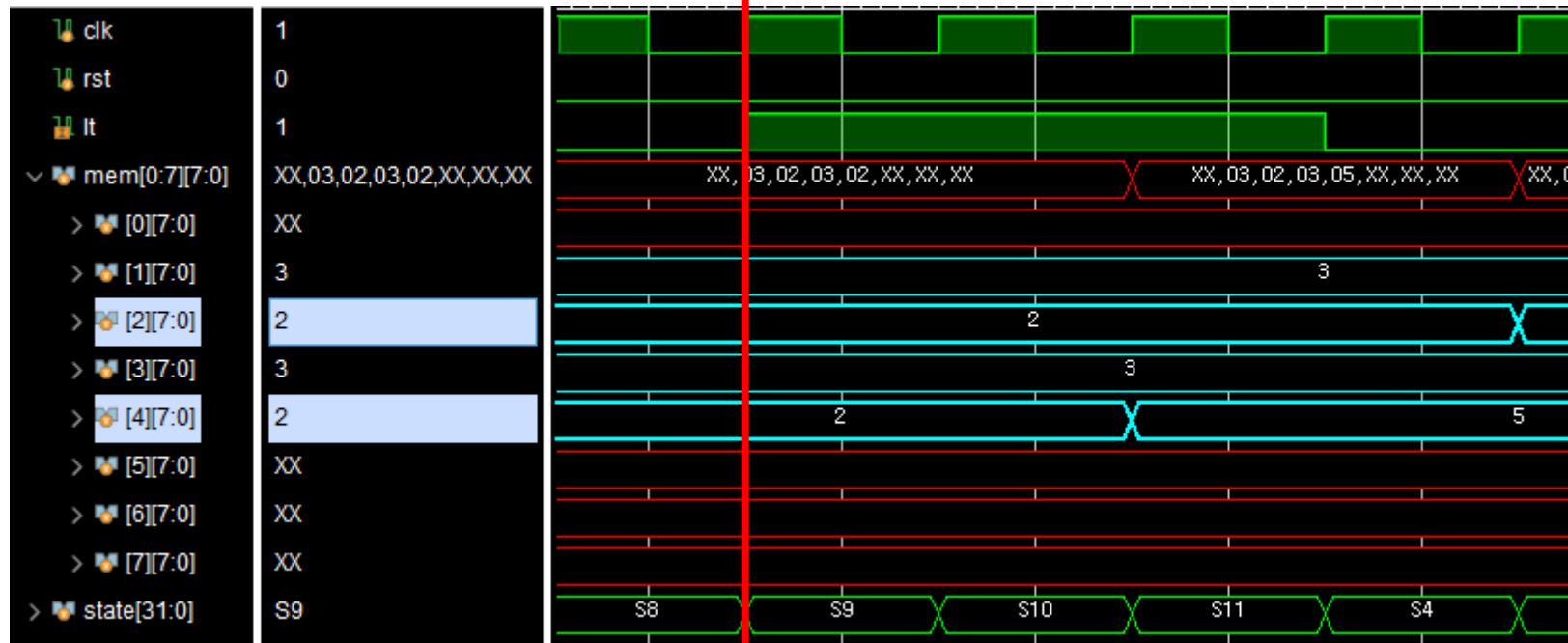


$R1 = 8'b0000_0001$

$R2 = 8'b0000_0010$

$R1 = 8'b0000_0011$

S8: $R4 < R2$

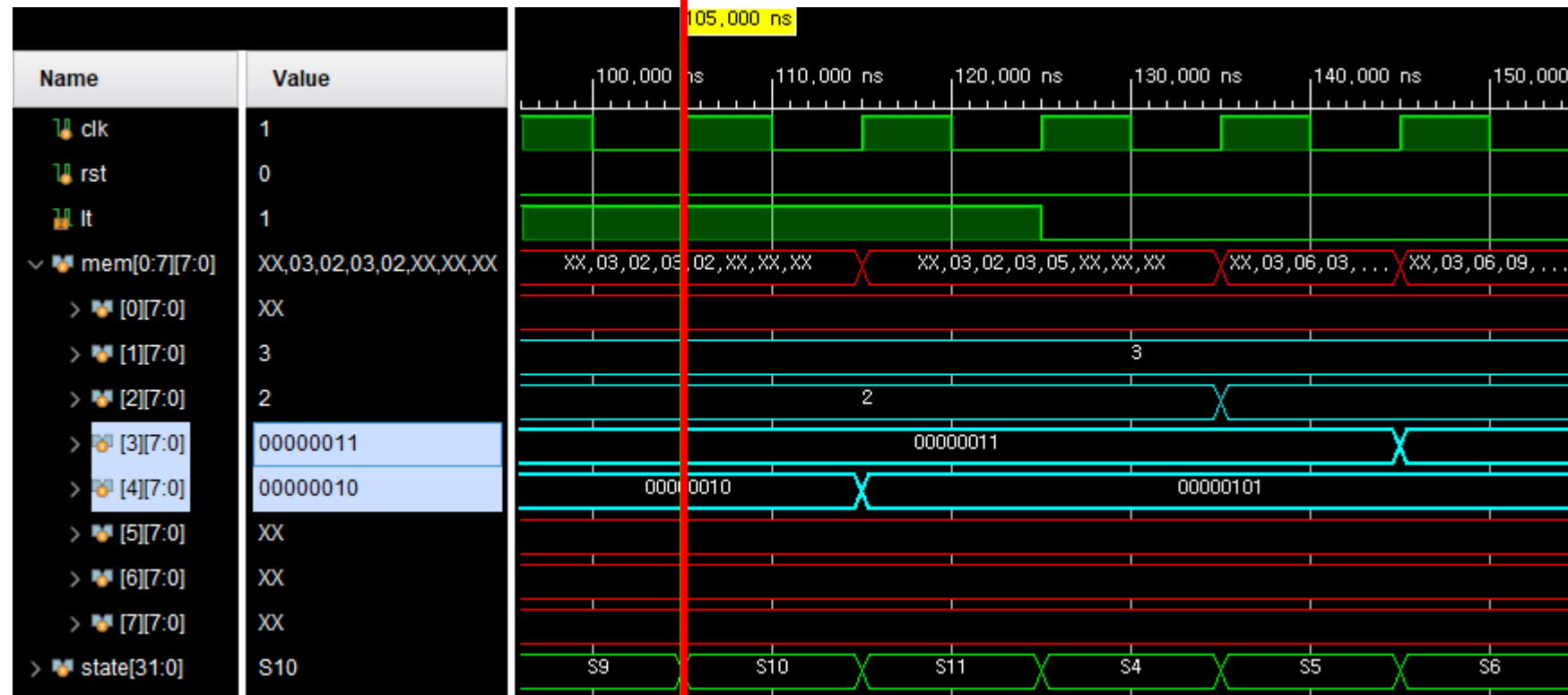


$R4 = 2$

$R2 = 2$

NO \rightarrow State = S9

S9: R4 = R4 & R3

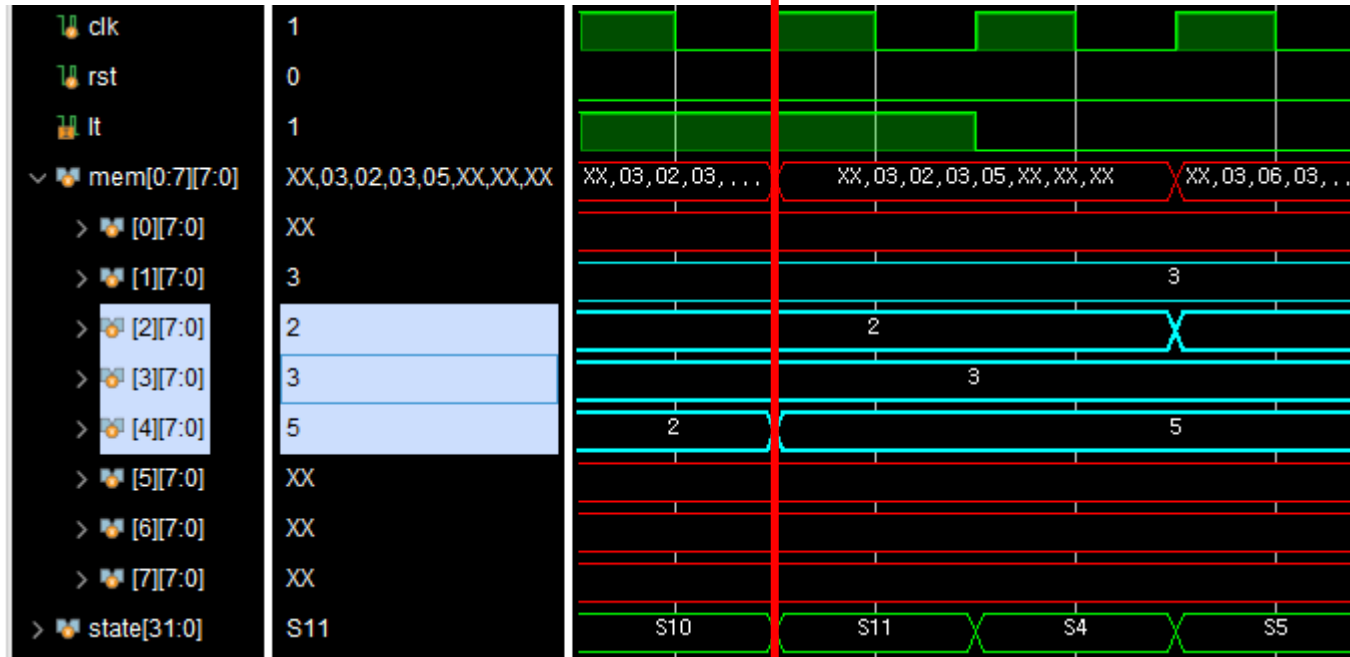


R4 = 8'b0000_0010

R3 = 8'b0000_0011

R4 = 8'b0000_0010

S10: $R4 = R2 + R3$

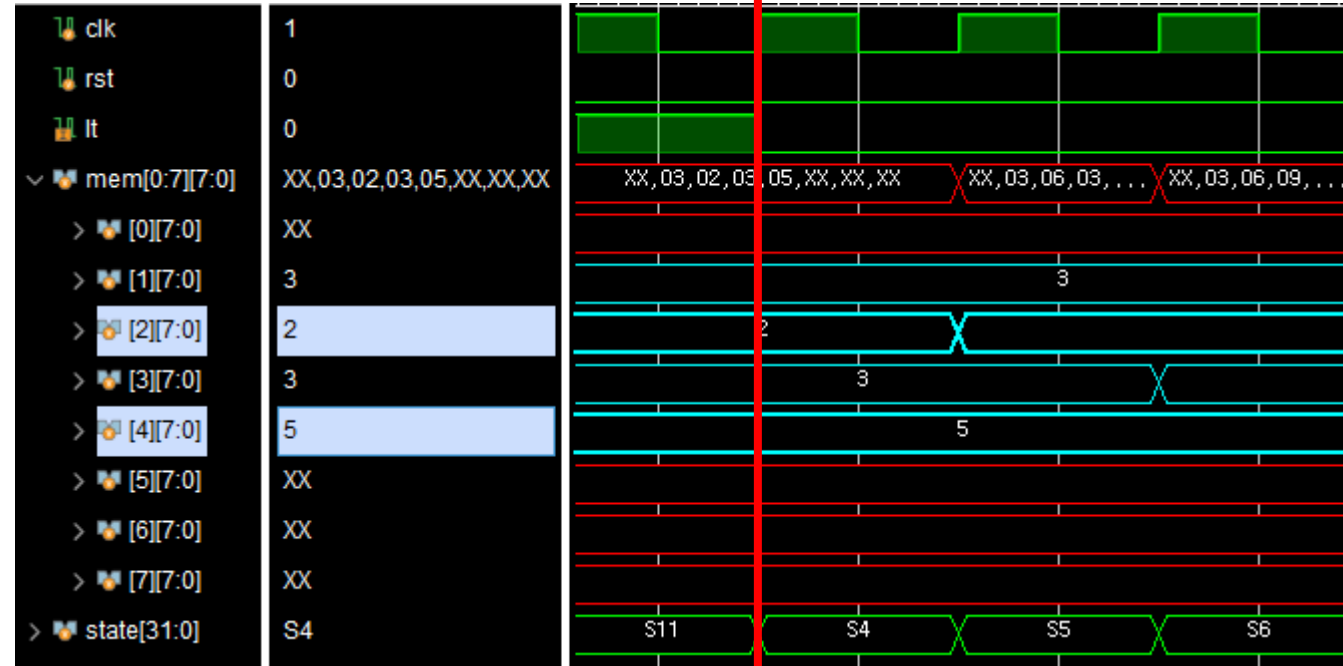


$$R2 = 2$$

$$R3 = 3$$

$$R4 = 5$$

S11: $R2 < R4$

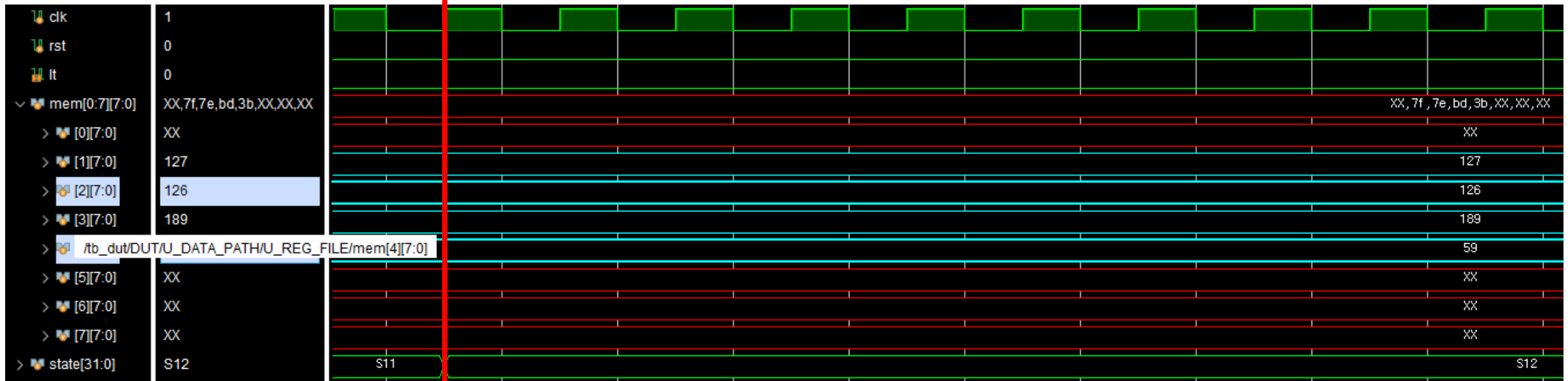


$R2 = 2$

$R4 = 5$

YES \rightarrow State = S4

S11: $R2 < R4$



R2 = 126

R4 = 59

NO → State = S12 == Halt