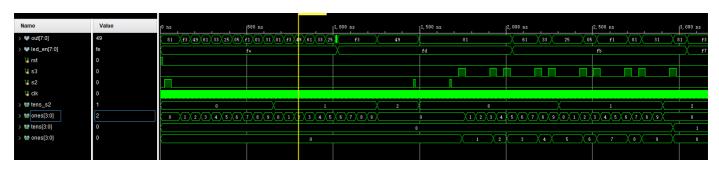
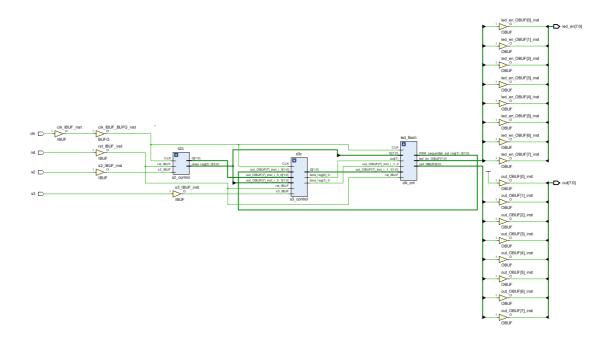
lab4

sim

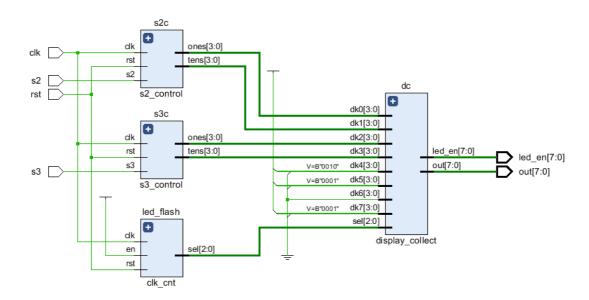


- (1) 15ns 时, rst=0, 复位结束
- (2) 25~35ns 时, s2=1, dk0, dk1 开始计数
- (3) 1255ns 时, {s2_tens, s2_ones} = 20, 计数结束, 保持
- (4) 1465ns~1475 时, s2 按下, s2_tens = 0, s2_ones = 0
- (5) 1675ns~1685 时, s2 按下, dk0, dk1 开始计数
- (6) 1725 时, s3 按下, {dk3, dk2} 开始计数, {dk3, dk2} = 1
- (7) 1905 时, s3 按下, {dk3, dk2} = 2
- (8) 1985 时, s3 按下, {dk3, dk2} = 3
- (9) 2165 时, s3 按下, {dk3, dk2} = 4
- (10) 2245 时, s3 按下, {dk3, dk2} = 5
- (11) 2245 时, s3 按下, {dk3, dk2} = 5
- (12) 2425 时, s3 按下, {dk3, dk2} = 6
- (13) 2505 时, s3 按下, {dk3, dk2} = 7
- (13) 2685 时, s3 按下, {dk3, dk2} = 8
- (13) 2765 时, s3 按下, {dk3, dk2} = 9
- (13) 2945 时, s3 按下, {dk3, dk2} = 10

syn



rtl



消抖 sim



- (1) 20ns 时,rst 弹起
- (2) 30ns~80ns 时, btn 抖动
- (3) 190ns~1190ns 时,btn 持续按下,s_btn 输出在 295ns~1295ns 时为 1295ns~1295ns 时为 1

轮询

Name	Value	0 us	10 us	20 us	30 us	40 us	50 us	60 us	70 us	80 us	90 us
> 🐶 out[7:0]	f3	XX f3 XX49	X f3 X X49 X X	f3 X X 49 X X X f3	(\d9\)\\ f3\\\	49 XX f3 XX49 X	f3 \\\49\\\	f3 X 49 X X f3	()(49)()(f3 ()(19 X X X f3 X X 49 X) / f3 / (49 /
> 😽 led_en[7:0]	f7	60000000	XXXXXXXXXX	XXXXXXXXXX	<u> </u>	XXXXXXXXXX	*******************	$\overline{\alpha}$	(<u> </u>	XXXXXXXXXX	XXXXXXXX
¼ clk	0										
¼ rst	0										
> 😻 dk7[3:0]	2						2				
> 🐶 dk6[3:0]	2						2				
> 😽 dk5[3:0]	0						0				
> 😻 dk4[3:0]	1						1				
> 💖 dk3[3:0]	1						1				
> 😽 dk2[3:0]	1						1				
> 😽 dk1[3:0]	0						0				
> 🐶 dk0[3:0]	1						1				