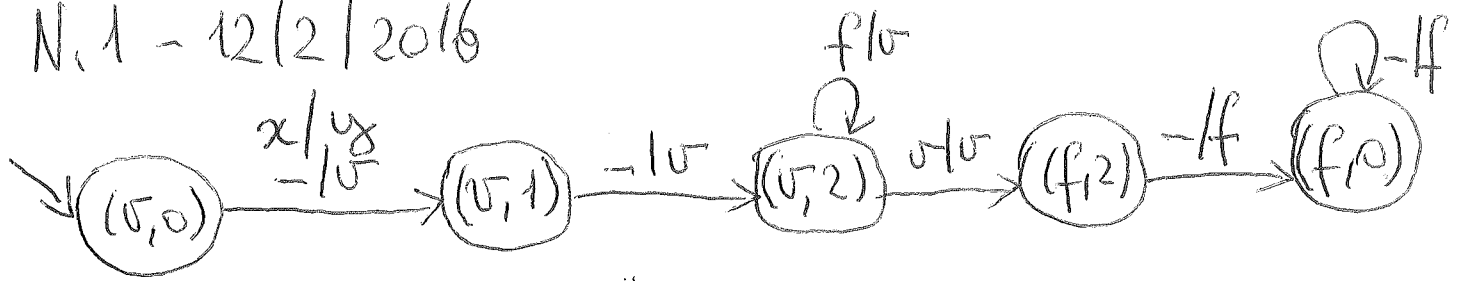


N. 1 - 12/2/2016



↓ minimize



$x = v_0 v_1 f_2 v_3 f_4$

$y = v_0 v_1 v_2 v_3 f_4 f_5$

x	SP	SF	y
0	A	B	1
1	A	B	1
-	B	C	1
0	C	C	1
1	C	D	1
-	D	D	0

$A \rightarrow \infty$

$B \rightarrow 01$

$C \rightarrow 11$

$D \rightarrow 10$

x	S1	S2	N1	N2	U
0	00	01	1		
1	00	01	1		
-	01	11	1		
0	11	11	1		
1	11	10	1		
-	10	10	0		

(a)  $I$

S1 S2	00	01	11	10
0	0	1	1	1
1	0	1	1	1

$N1 = S1 + S2$

(b)  $I$

S1 S2	00	01	11	10
0	1	1	1	0
1	1	1	0	0

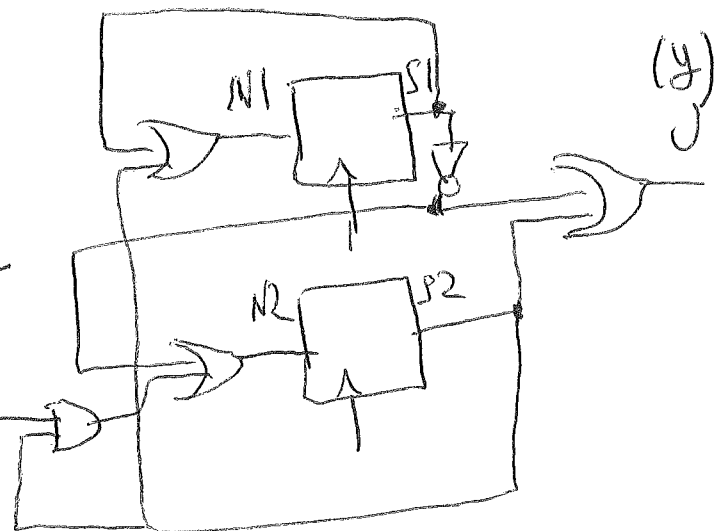
$N2 = \bar{S1} + \bar{I} S2$

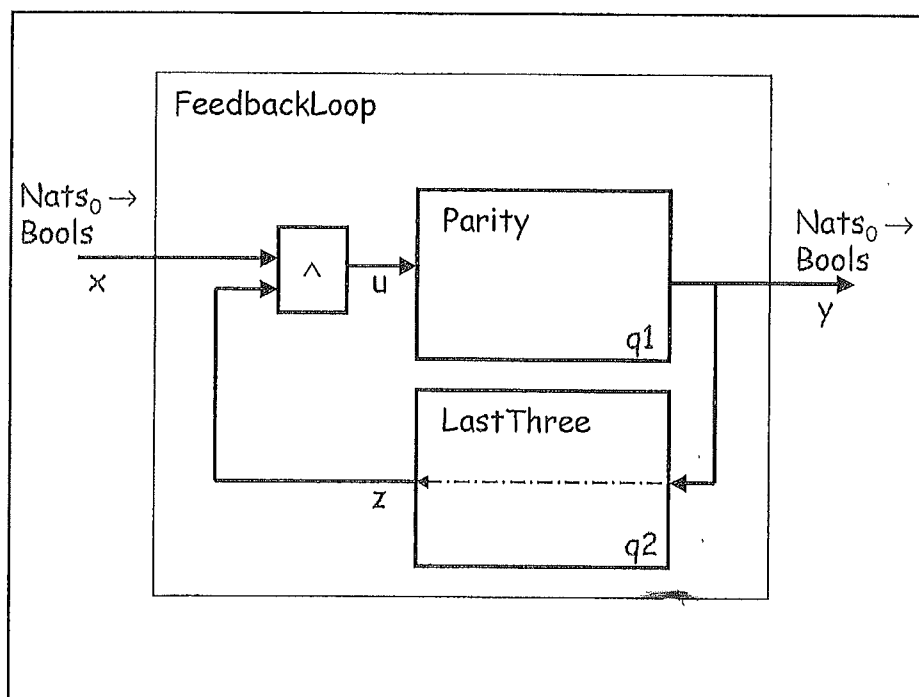
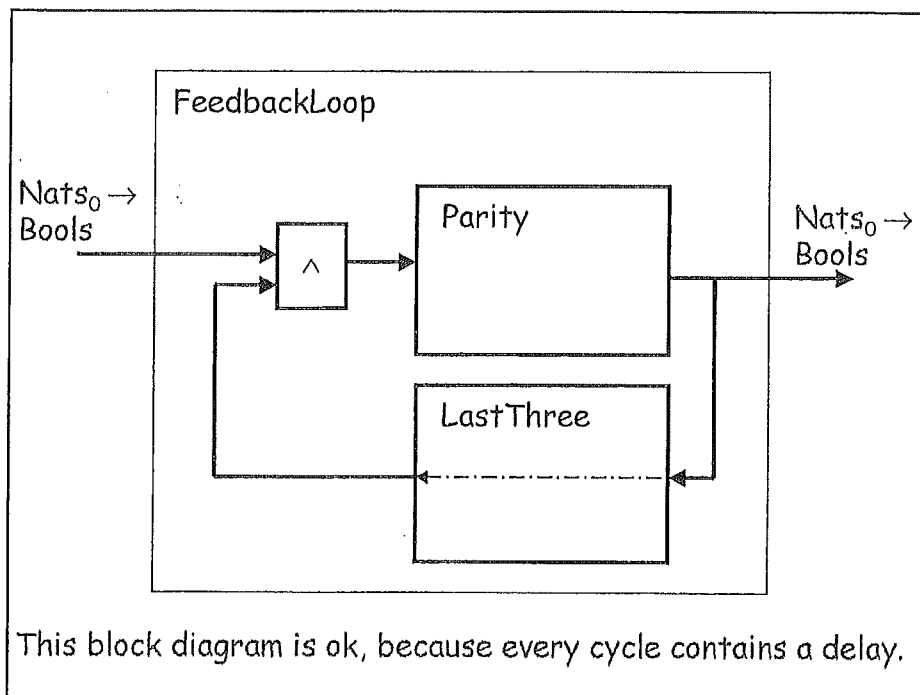
(c)  $I$

S1 S2	00	01	11	10
0	1	1	1	0
1	1	1	1	0

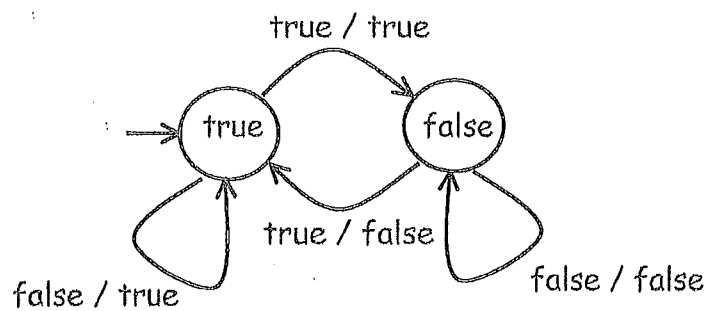
$U = \bar{S1} + S2$

$I \rightarrow \bar{I}$



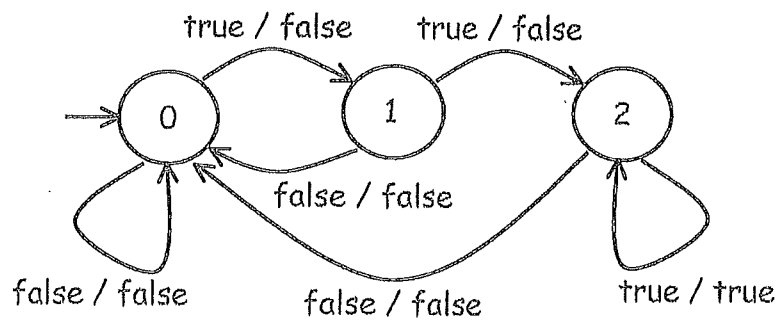


### Parity System



States = Booleans  
Inputs = Booleans  
Outputs = Booleans

### LastThree System



States = {0, 1, 2}  
Inputs = Booleans  
Outputs = Booleans