0.1 Zakodowane wejsc, wyjsc i stanow wewnetrznych

	Z
z_0	0
z_1	1

	Y
y_0	0
y_1	1

	Q_4	Q_3	Q_2	Q_1	Q_0
q_0	0	0	0	0	0
q_1	0	0	0	0	1
q_2	0	0	0	1	0
q_3	0	0	0	1	1
q_4	0	0	1	0	0
q_5	0	0	1	0	1
q_6	0	0	1	1	0
q_7	0	0	1	1	1
q_8	0	1	0	0	0
q_9	0	1	0	0	1
q_{10}	0	1	0	1	0
q_{11}	0	1	0	1	1
q_{12}	0	1	1	0	0
q_{13}	0	1	1	0	1
q_{14}	0	1	1	1	0
q_{15}	0	1	1	1	1
q_{16}	1	0	0	0	0
q_{17}	1	0	0	0	1
q_{18}	1	0	0	1	0
q_{19}	1	0	0	1	1

0.2 Zakodowane przejscia stanow

t	t+1
t 0 1 2 3 4 5	
1	1 2 3
2	3
3	4 5
4	5
5	6 7
6	7
	8
8 9	9
9	10
10	11
11	12
12	13
13	14
14	15
15	10 11 12 13 14 15 16 17
16	17
10 11 12 13 14 15 16 17 18	18
18	19
19	0

0.3 Tabela przejsc dla przerzutnikow JK

		t					t+1			Przerzutniki									
Q_4	Q_3	Q_2	Q_1	Q_0	Q_4	Q_3	Q_2	Q_1	Q_0	J_4	K_4	J_3	K_3	J_2	K_2	J_1	K_1	J_0	K_0
0	0	0	0	0	0	0	0	0	1	0	*	0	*	0	*	0	*	1	*
0	0	0	0	1	0	0	0	1	0	0	*	0	*	0	*	1	*	*	1
0	0	0	1	0	0	0	0	1	1	0	*	0	*	0	*	*	0	1	*
0	0	0	1	1	0	0	1	0	0	0	*	0	*	1	*	*	1	*	1
0	0	1	0	0	0	0	1	0	1	0	*	0	*	*	0	0	*	1	*
0	0	1	0	1	0	0	1	1	0	0	*	0	*	*	0	1	*	*	1
0	0	1	1	0	0	0	1	1	1	0	*	0	*	*	0	*	0	1	*
0	0	1	1	1	0	1	0	0	0	0	*	1	*	*	1	*	1	*	1
0	1	0	0	0	0	1	0	0	1	0	*	*	0	0	*	0	*	1	*
0	1	0	0	1	0	1	0	1	0	0	*	*	0	0	*	1	*	*	1
0	1	0	1	0	0	1	0	1	1	0	*	*	0	0	*	*	0	1	*
0	1	0	1	1	0	1	1	0	0	0	*	*	0	1	*	*	1	*	1
0	1	1	0	0	0	1	1	0	1	0	*	*	0	*	0	0	*	1	*
0	1	1	0	1	0	1	1	1	0	0	*	*	0	*	0	1	*	*	1
0	1	1	1	0	0	1	1	1	1	0	*	*	0	*	0	*	0	1	*
0	1	1	1	1	1	0	0	0	0	1	*	*	1	*	1	*	1	*	1
1	0	0	0	0	1	0	0	0	1	*	0	0	*	0	*	0	*	1	*
1	0	0	0	1	1	0	0	1	0	*	0	0	*	0	*	1	*	*	1
1	0	0	1	0	1	0	0	1	1	*	0	0	*	0	*	*	0	1	*
1	0	0	1	1	0	0	0	0	0	*	1	0	*	0	*	*	1	*	1

$0.4\,\,$ Minimalizacja metoda Karnough dla przerzutnikow JK

J_4								
$Q_4Q_3Q_2 / Q_1Q_0$	00	01	11	10				
000	0	0	0	0				
001	0	0	0	0				
011	0	0	1	0				
010	0	0	0	0				
110	*	*	*	*				
111	*	*	*	*				
101	*	*	*	*				
100	*	*	*	*				

$$J_4 = Q_3 Q_2 Q_1 Q_0$$

J_3							
$Q_4Q_3Q_2 / Q_1Q_0$	00	01	11	10			
000	0	0	0	0			
001	0	0	1	0			
011	*	*	*	*			
010	*	*	*	*			
110	*	*	*	*			
111	*	*	*	*			
101	*	*	*	*			
100	0	0	0	0			

$$J_3 = Q_2 Q_1 Q_0$$

J_2								
$Q_4Q_3Q_2 / Q_1Q_0$	00	01	11	10				
000	0	0	1	0				
001	*	*	*	*				
011	*	*	*	*				
010	0	0	1	0				
110	*	*	*	*				
111	*	*	*	*				
101	*	*	*	*				
100	0	0	0	0				

$$J_2 = \overline{Q}_4 Q_1 Q_0$$

K_4							
$Q_4Q_3Q_2 / Q_1Q_0$	00	01	11	10			
000	*	*	*	*			
001	*	*	*	*			
011	*	*	*	*			
010	*	*	*	*			
110	*	*	*	*			
111	*	*	*	*			
101	*	*	*	*			
100	0	0	1	0			

$$\overline{K_4 = Q_1 Q_0}$$

K_3								
$Q_4Q_3Q_2 / Q_1Q_0$	00	01	11	10				
000	*	*	*	*				
001	*	*	*	*				
011	0	0	1	0				
010	0	0	0	0				
110	*	*	*	*				
111	*	*	*	*				
101	*	*	*	*				
100	*	*	*	*				

$$K_3 = Q_2 Q_1 Q_0$$

K_2								
$Q_4Q_3Q_2 / Q_1Q_0$	00	01	11	10				
000	*	*	*	*				
001	0	0	1	0				
011	0	0	1	0				
010	*	*	*	*				
110	*	*	*	*				
111	*	*	*	*				
101	*	*	*	*				
100	*	*	*	*				

$$K_2 = Q_1 Q_0$$

J_1								
$Q_4Q_3Q_2 / Q_1Q_0$	00	01	11	10				
000	0	1	*	*				
001	0	1	*	*				
011	0	1	*	*				
010	0	1	*	*				
110	*	*	*	*				
111	*	*	*	*				
101	*	*	*	*				
100	0	1	*	*				

$$J_1 = Q_0$$

J_0					
$Q_4Q_3Q_2 / Q_1Q_0$	00	01	11	10	
000	1	*	*	1	
001	1	*	*	1	
011	1	*	*	1	
010	1	*	*	1	
110	*	*	*	*	
111	*	*	*	*	
101	*	*	*	*	
100	1	*	*	1	

$$J_0 = 1$$

K_1					
$Q_4Q_3Q_2 / Q_1Q_0$	00	01	11	10	
000	*	*	1	0	
001	*	*	1	0	
011	*	*	1	0	
010	*	*	1	0	
110	*	*	*	*	
111	*	*	*	*	
101	*	*	*	*	
100	*	*	1	0	

$$K_1 = Q_0$$

K_0						
$Q_4Q_3Q_2 / Q_1Q_0$	00	01	11	10		
000	*	1	1	*		
001	*	1	1	*		
011	*	1	1	*		
010	*	1	1	*		
110	*	*	*	*		
111	*	*	*	*		
101	*	*	*	*		
100	*	1	1	*		

$$K_0 = 1$$