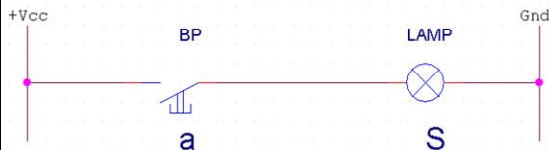
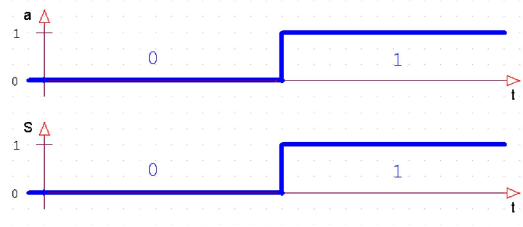
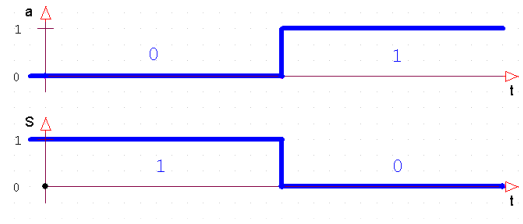
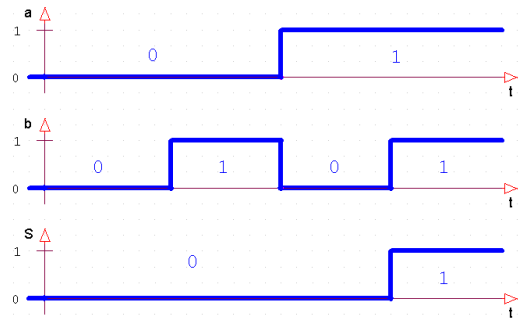
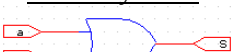
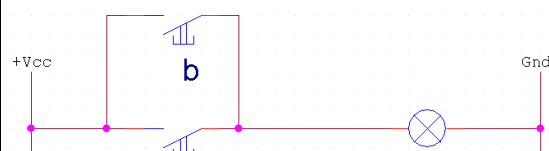
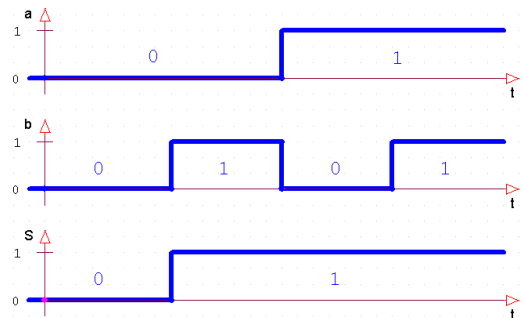
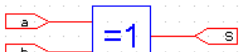
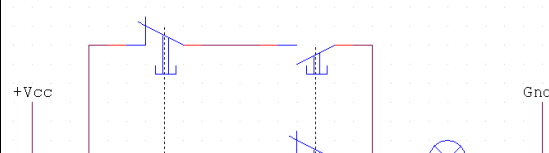
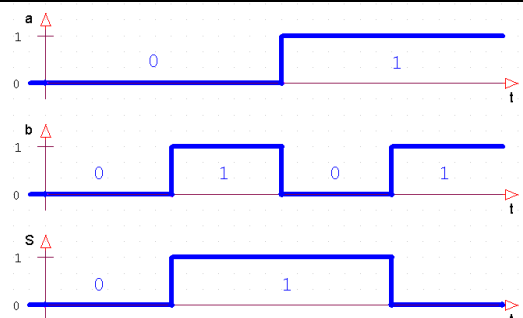
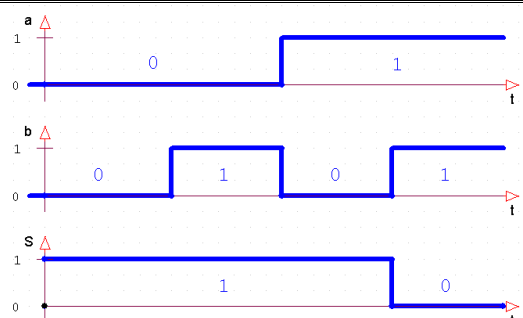
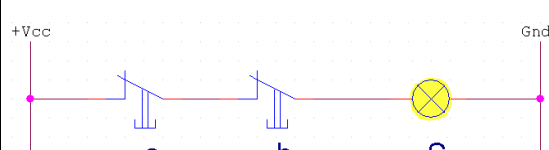
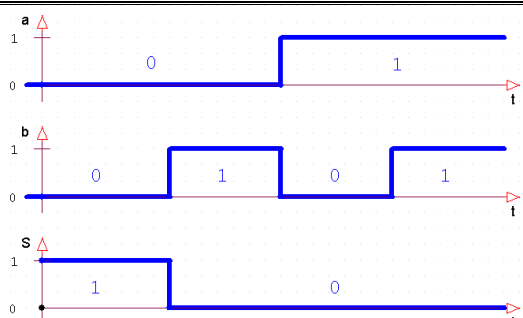
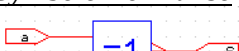
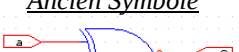
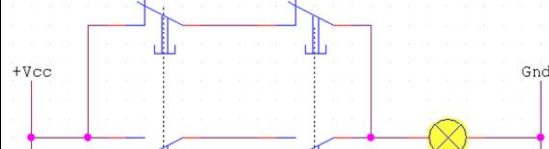
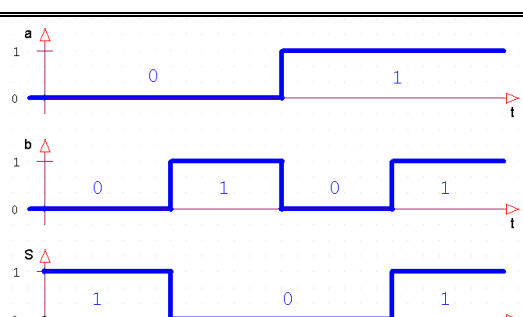


Synthèse des Portes Logiques

Fonctions	Symboles	Table de Vérité	Equations et Propriétés	Schémas equivalent à contats	Chronogrammes															
OUI	<u>Symbole Normalisé</u>  <u>Ancien Symbole</u> 	<table><tr><th>a</th><th>S</th></tr><tr><td>0</td><td>0</td></tr><tr><td>1</td><td>1</td></tr></table>	a	S	0	0	1	1	$S = a$	Si on appuie sur le bouton poussoir a, la lampe S s'allume. 										
a	S																			
0	0																			
1	1																			
NON (NO)	<u>Symbole Normalisé</u>  <u>Ancien Symbole</u> 	<table><tr><th>a</th><th>S</th></tr><tr><td>0</td><td>1</td></tr><tr><td>1</td><td>0</td></tr></table>	a	S	0	1	1	0	$S = \overline{a}$	Si on appuie sur le bouton poussoir a, la lampe S s'éteint. 										
a	S																			
0	1																			
1	0																			
ET (AND)	<u>Symbole Normalisé</u>  <u>Ancien Symbole</u> 	<table><tr><th>a</th><th>b</th><th>S</th></tr><tr><td>0</td><td>0</td><td>0</td></tr><tr><td>0</td><td>1</td><td>0</td></tr><tr><td>1</td><td>0</td><td>0</td></tr><tr><td>1</td><td>1</td><td>1</td></tr></table>	a	b	S	0	0	0	0	1	0	1	0	0	1	1	1	$S = a.b$ $A.A = A$ $\overline{A}.A = 0$ $1.A = A$ $0.A = 0$		
a	b	S																		
0	0	0																		
0	1	0																		
1	0	0																		
1	1	1																		
OU Inclusif (OR)	<u>Symbole Normalisé</u>  <u>Ancien Symbole</u> 	<table><tr><th>a</th><th>b</th><th>S</th></tr><tr><td>0</td><td>0</td><td>0</td></tr><tr><td>0</td><td>1</td><td>1</td></tr><tr><td>1</td><td>0</td><td>1</td></tr><tr><td>1</td><td>1</td><td>1</td></tr></table>	a	b	S	0	0	0	0	1	1	1	0	1	1	1	1	$S = a + b$ $A + A = A$ $\overline{A} + A = 1$ $1 + A = 1$ $0 + A = A$		
a	b	S																		
0	0	0																		
0	1	1																		
1	0	1																		
1	1	1																		
OU Exclusif (XOR)	<u>Symbole Normalisé</u>  <u>Ancien Symbole</u> 	<table><tr><th>a</th><th>b</th><th>S</th></tr><tr><td>0</td><td>0</td><td>0</td></tr><tr><td>0</td><td>1</td><td>1</td></tr><tr><td>1</td><td>0</td><td>1</td></tr><tr><td>1</td><td>1</td><td>0</td></tr></table>	a	b	S	0	0	0	0	1	1	1	0	1	1	1	0	$S = a \oplus b$ $S = a\overline{b} + \overline{a}b$ $S = (a+b)(\overline{a+b})$ $1 \oplus A = \overline{A}$ $0 \oplus A = A$	 : liaison mécanique a et b sont des boutons poussoirs doubles.	
a	b	S																		
0	0	0																		
0	1	1																		
1	0	1																		
1	1	0																		
NON ET (NAND)	<u>Symbole Normalisé</u>  <u>Ancien Symbole</u> 	<table><tr><th>a</th><th>b</th><th>S</th></tr><tr><td>0</td><td>0</td><td>1</td></tr><tr><td>0</td><td>1</td><td>1</td></tr><tr><td>1</td><td>0</td><td>1</td></tr><tr><td>1</td><td>1</td><td>0</td></tr></table>	a	b	S	0	0	1	0	1	1	1	0	1	1	1	0	$S = \overline{a.b}$ $S = \overline{a + b}$ $\overline{A.A} = \overline{A}$ $\overline{\overline{A}.A} = 1$ $\overline{1.A} = \overline{A}$ $\overline{0.A} = 1$		
a	b	S																		
0	0	1																		
0	1	1																		
1	0	1																		
1	1	0																		
NON OU Inclusif (NOR) (NI)	<u>Symbole Normalisé</u>  <u>Ancien Symbole</u> 	<table><tr><th>a</th><th>b</th><th>S</th></tr><tr><td>0</td><td>0</td><td>1</td></tr><tr><td>0</td><td>1</td><td>0</td></tr><tr><td>1</td><td>0</td><td>0</td></tr><tr><td>1</td><td>1</td><td>0</td></tr></table>	a	b	S	0	0	1	0	1	0	1	0	0	1	1	0	$S = \overline{a + b}$ $S = \overline{a}. \overline{b}$ $\overline{A + A} = \overline{A}$ $\overline{\overline{A} + A} = 0$ $\overline{1 + A} = 0$ $\overline{0 + A} = \overline{A}$		
a	b	S																		
0	0	1																		
0	1	0																		
1	0	0																		
1	1	0																		
NON OU Exclusif (EXNOR)	<u>Symbole Normalisé</u>  <u>Ancien Symbole</u> 	<table><tr><th>a</th><th>b</th><th>S</th></tr><tr><td>0</td><td>0</td><td>1</td></tr><tr><td>0</td><td>1</td><td>0</td></tr><tr><td>1</td><td>0</td><td>0</td></tr><tr><td>1</td><td>1</td><td>1</td></tr></table>	a	b	S	0	0	1	0	1	0	1	0	0	1	1	1	$S = \overline{a \oplus b}$ $S = \overline{a.b} + a.b$ $S = (\overline{a+b})(a+b)$ $1 \oplus A = A$ $0 \oplus A = \overline{A}$	 : liaison mécanique a et b sont des boutons poussoirs doubles.	
a	b	S																		
0	0	1																		
0	1	0																		
1	0	0																		
1	1	1																		

