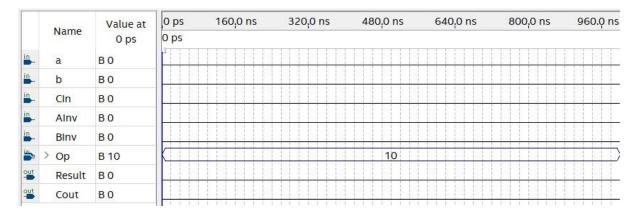
Δημήτρης Τουμαζάτος, 3210199, p3210199@aueb.gr

Δημήτρης Φωτογιαννόπουλος, 3210214, p3210214@aueb.gr

Αλέξιος Παπαδόπουλος-Σιούντρης, 3210154, p3210154@aueb.gr

1-Bit ALU

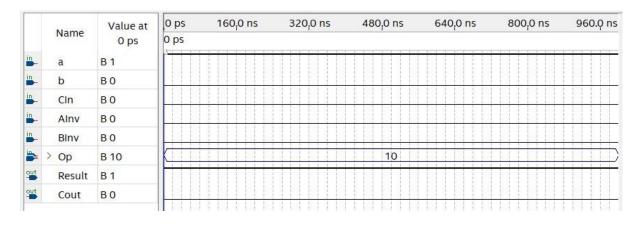
ADD 00



ADD 01

	Name	Value at 0 ps	0 ps 0 ps	160 _, 0 ns	320 _i 0 ns	480 _; 0 ns	640 _i 0 ns	800 _i 0 ns	960.0 ns
in	a	во							
in_	b	B 1							
in	Cln	B 0							
in	Alnv	во							
in_	Blnv	В 0							
-	> Op	B 10				10			
out	Result	B 1							
out	Cout	В 0							

ADD 10



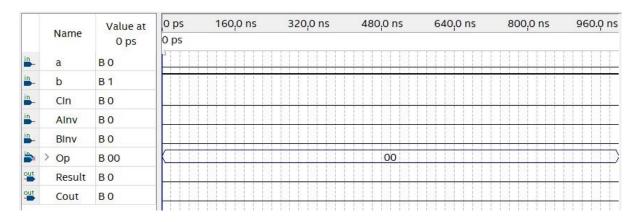
ADD 11

	Name	Value at	0 ps	j	16	50,0 n	IS		32	0,0	ns	3	480	0,0 r	าร	6	540	0,0	าร	ŧ	800	0,0	ns		3	960).O ns
	Name	0 ps	0 ps																								
in_	a	B 1			П			11				1		11		1	1							1			
in	b	B 1			T																			1			П
in_	Cln	В 0																						1			
in	Alnv	В 0						11					Ш											1			
in_	Blnv	В 0																						1			
-	> Op	B 10												10)									1			
out	Result	В 0																				188					
out	Cout	B 1		Ħ	Ħ		Ħ								Ħ		1				Ħ			1			

AND 00

		Value at	0 ps	160 _, 0 ns	320,0 ns	480,0 ns	640,0 ns	800,0 ns	960.0 ns
	Name	0 ps	0 ps						
in	a	ВО	4						
in	b	В 0							
in	Cln	В 0							
in	Alnv	ВО							
in	Blnv	В 0							
-	> Op	B 00				00			
out	Result	ВО							
out	Cout	ВО							

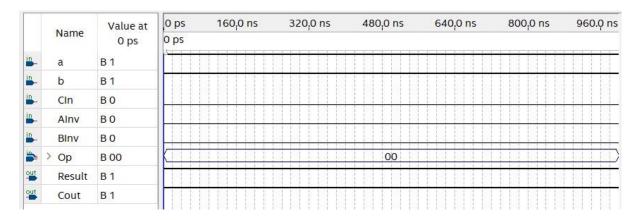
AND 01



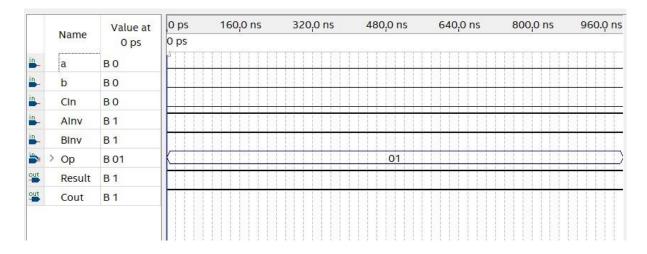
AND 10

	Name	Value at	0 ps	160 _, 0 ns	320 _, 0 ns	480 _, 0 ns	640 _, 0 ns	800 _, 0 ns	960.0 ns
	Name	0 ps	0 ps						
in	a	B 1							
in	b	B 0							
in	Cln	во							
in	Alnv	ВО							
in_	Blnv	B 0							
	> Op	B 00				00			
out	Result	ВО							
out	Cout	В 0							

AND 11



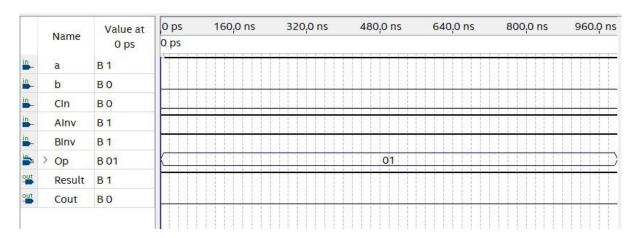
NAND 00



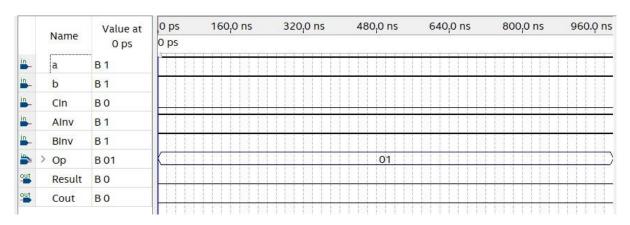
NAND 01

	Namo	Value at	0 ps	1	60 _: 0 n	S	3	320,) ns		180	0 n	s		6	40,	0 n	s		8	00,	0 n	S		96	o.0	ns
	Name	0 ps	0 ps																								
in_	a	ВО				W		W	П	П	W			W					W				П				
in	b	B 1						100		П	TX.	П		1XX				1	IX.			K	П		П		1
n	CIn	B 0								П	X			X					X				П				
n_	Alnv	B 1	1 1 1								10			100					18					T			1
n	Blnv	B 1						101			10								0								1
-	> Op	B 01										01			1												
out	Result	B 1						100		П		П		100					100				П		П	П	
out	Cout	B 0																	10								K

NAND 10



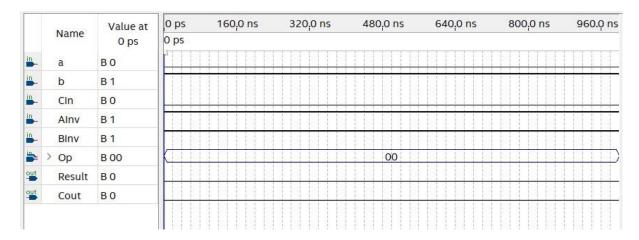
NAND 11



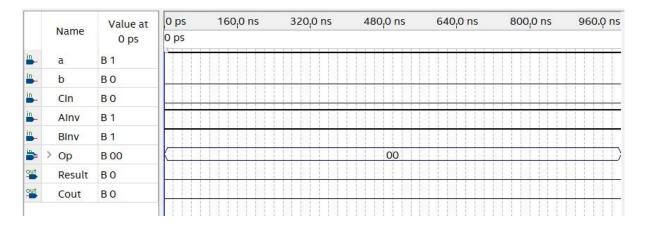
NOR 00

	12 12 CO 15	Value at	0 ps	160.0 ns	320,0 ns	480.0 ns	640.0 ns	800.0 ns	960.0 ns
	Name	0 ps	0 ps						
in_	a	ВО							
in	b	ВО							
in	CIn	ВО							
in	Alnv	B 1							
in	Blnv	B 1							
-	> Op	B 00				00			
out	Result	B 1							
out	Cout	B 1							

NOR 01



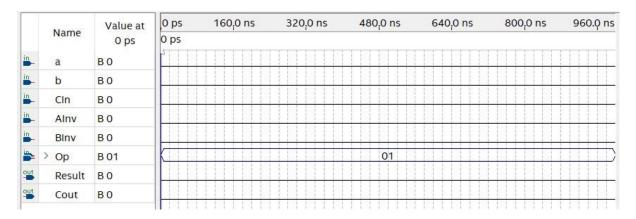
NOR 10



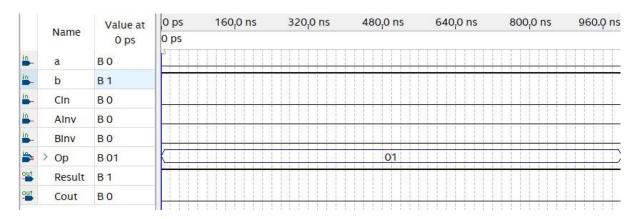
NOR 11

٧	Value at		o ps		•	160	0 n	ıs		3	20,	0 n	S		4	80	0 n	ıs			640	0,0	ns		8	00	0	ns		96	o.0	ns
•	0 ps	C) ps																													
B 1	1																		1							1		-				1
B 1	1	8	П																1	1				1		1		1				1
ВС	0	100																	1									1				1
B 1	1	000	П	П			T								T					1				T		T		1				Ī
B 1	1						T		T										1	1								1				1
ВС	00	K							18			10		8			00							-	9			1				I
вс	0							H											1	1								1				
ВС	0									11			1 1					1 1	1	1		1										1
ВС	0	1,8																1														

OR 00



OR 01



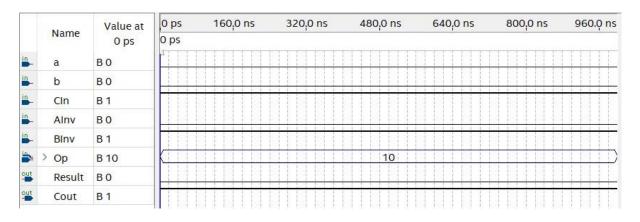
OR 10

	Name	Value at	0 ps	160 _, 0 ns	320 _i 0 ns	480 _. 0 ns	640 _i 0 ns	800 _i 0 ns	960.0 ns
	Hame	0 ps	0 ps						
in_	a	B 1							
in_	b	B 0							
in_	CIn	ВО							
in	Alnv	во							
in	Blnv	ВО							
5	> Op	B 01				01			
out	Result	В 1							
out	Cout	ВО							

OR 11

	Name	Value at	O p	os	1	60,	0 n	s	32	20,	0 r	15			480	0,0	ns			6	40	0	ns		8	00,	0 r	15		9	60	.O ns
	Name	0 ps	0 p	os																												
in	a	B 1					X							X					Ì				10				1		Ī			
in	b	B 1	4											X	П		П		I				1				1					
in	Cln	B 0	4				XL:			П				X			П		1								1					
in_	Alnv	B 0	4											X	Ш		Ш		1								1		1			
in	Blnv	B 0							8					×	П			1	l			i	1	0	4		ì					
-	> Op	B 01												Ĭ		C	1										Ì					
out	Result	B 1												N					Ī								1		1			П
out	Cout	B 1	1					П	d				H	V					Ī						İ		1		T			

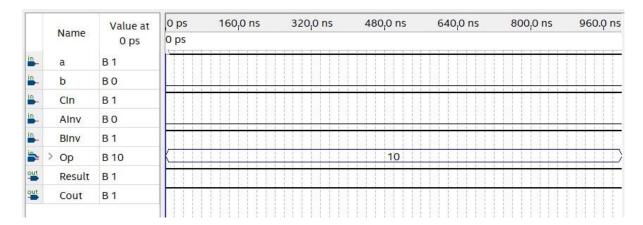
SUB 00



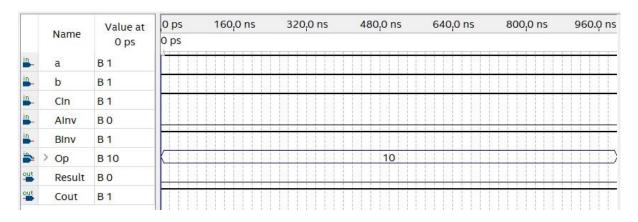
SUB 01

	Name	0	44-7100			0 ns		320	0,0	ns			180	o r	15		6	40	0,	15	(300	0,0	ns		- 3	960	Ų.Ç	ns
1		0 ps	0 p	S																									
	a	ВО									1		1			1		ŀ							1			i	-
<u> </u>	b	B 1		П	П	П	П									T		I							1		П		1
<u> </u>	Cln	B 1									1														1				
n	Alnv	B 0						Ш			1	П	1			1			П						1		Ш		
<u> </u>	Blnv	B 1									1		-			Ī									-				-
>	Ор	B 10												10	r III.	1			П						1		I		I
ut	Result	B 1		П							1		-			1		I					T		1				1
out	Cout	во									1		-																

SUB 10



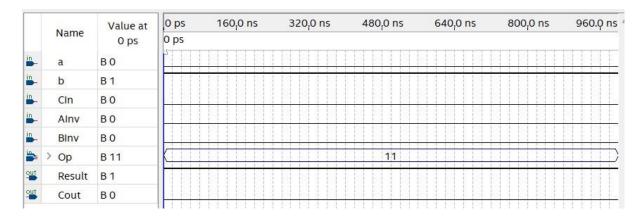
SUB 11



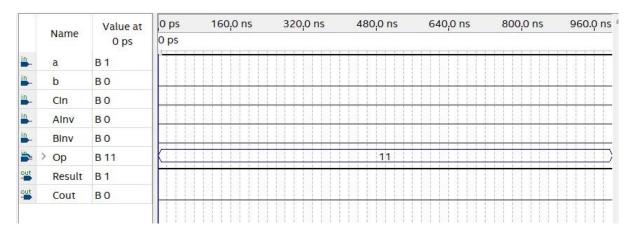
XOR 00

	.,,	Value at	0 ps	160 _. 0 ns	320	0,0 n	S		48	0,0	ns	6	40	0,	าร		800	0,0	ns		96	50.0) ns
	Name	0 ps	0 ps																				
in	a	В 0																					
n	b	В 0											-										
in	Cln	ВО																					
n	Alnv	ВО								1 1	į	1	-						-				
n	Blnv	ВО										1 1	1			-			-	1			
-	> Op	B 11								1	1				18								
ut	Result	ВО											-						-				
out	Cout	ВО																	-				
								1 1		1 1	-	1 1	-		1	-			-	1			

XOR 01



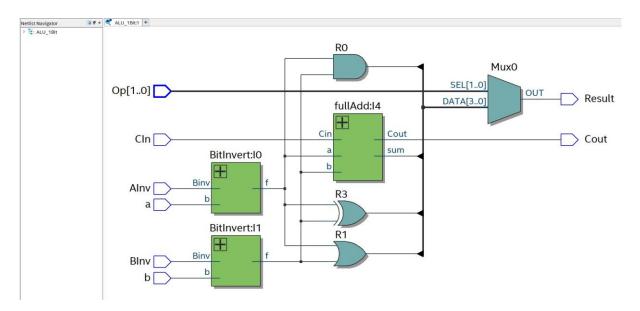
XOR 10



XOR 11

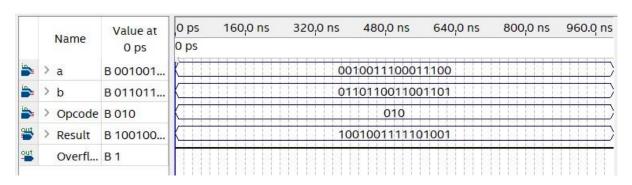
	Mana	Value at	0 ps	160 _, 0 ns	320,0 ns	480 _. 0 ns	640 _, 0 ns	800 _; 0 ns	960.0 ns
	Name	0 ps	0 ps						
in	a	B 1							
in	b	B 1							11111
in_	Cln	В 0							
in	Alnv	В 0							
in	Blnv	В 0							
5	> Op	B 11				11			
out	Result	ВО							
out	Cout	B 1							

RTL VIEWER



16-Bit ALU

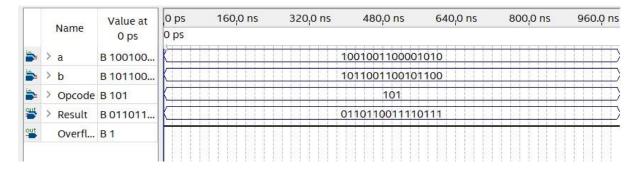
ADD



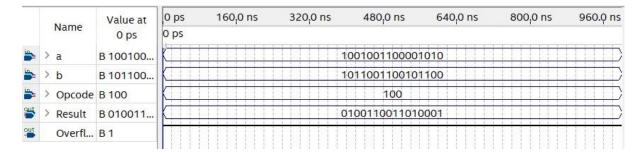
AND

		Name	Value at 0 ps	0 ps 0 ps	160 _i 0 ns	320 _, 0 ns	480 _, 0 ns	640 _, 0 ns	800 _, 0 ns	960.0 ns
-	>	a	B 010101				0101010101010	001		
-	>	b	B 111101				1111010101010	001		
-	>	Opcode	B 000				000			
**	>	Result	B 010101				0101010101010	001		
out		Overfl	ВО							

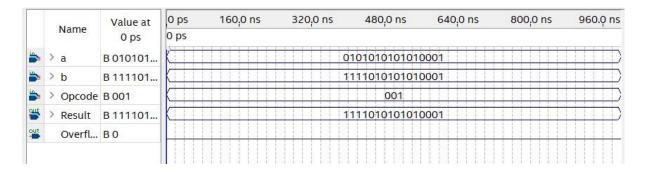
NAND



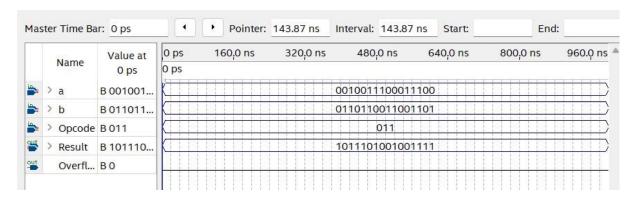
NOR



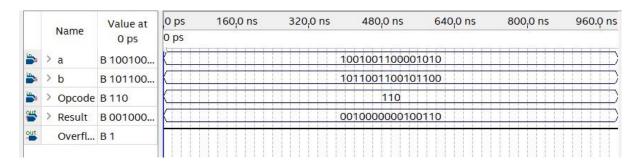
OR



SUB



XOR



RTL VIEWER

