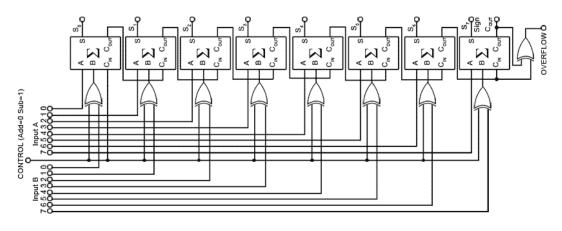
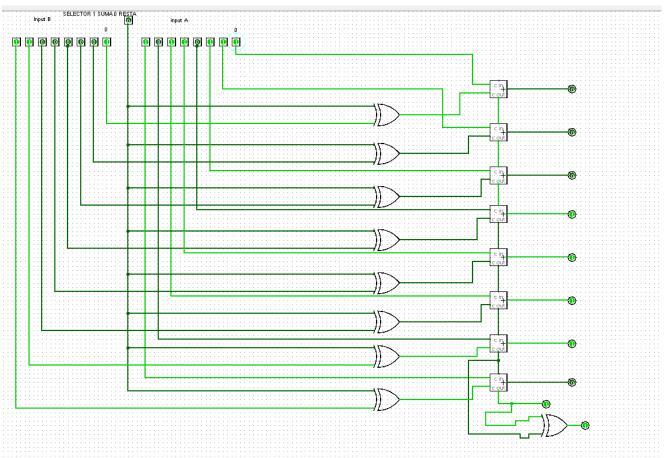
Diseñe en VHDL un sumador/restador de 8 bits en complementos a 2. Instanciando 8 suma dores completos con el mismo diseño usado en la práctica anterior usando la arquitectura Data-flow.





SIMULACION

SUMA DE DOS NUMEROS POSITIVOS

					100,000 ps				
Name	Value	99,997 ps	199,998 ps	199,999 ps	100,000 ps	100,001 ps	100,002 ps	100,003 ps	100,
► 👸 a[7:0]	01001001		00000000				0.001001		
■ b[7:0]	00101010		00000000				00101010		
16 t	0								
1‰ c_flag	0								
16 ov_flag	0								
r[7:0]	01110011		00000000				0.110011		
								200,000 ps	
Name	Value	199,994 ps	199,995 ps	199,996 ps	199,997 ps	199,998 ps	199,999 ps	200,000 ps	. 120
Name 	Value 01011001	199,994 ps	199,995 ps		199,997 ps 001001	199,998 ps	199,999 ps	200,000 ps	
■ a[7:0] ■ b[7:0]	01011001 00111110	199,994 ps	199,995 ps	01		199,998 ps	199,999 ps		
■ a[7:0] ■ b[7:0] ■ t	01011001 00111110 0	199,994 ps	199,995 ps	01	001001	199,998 ps	199,999 ps	01011001	
□	01011001 00111110	199,994 ps	199,995 ps	01	001001	199,998 ps	199,999 ps	01011001	
► [6 a[7:0] ► [6 b[7:0] 16 t	01011001 00111110 0	199,994 ps	199,995 ps	01: 00	001001	199,998 ps	199,999 ps	01011001	
a[7:0]	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	199,994 ps	199,995 ps	01: 00	001001 101010	199,998 ps	199,999 ps	01011001 00111110	
a[7:0]	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1199,994 pp	199,995 ps	01: 00	001001 101010	199,998 ps	199,999 ps	01011001 00111110	
a[7:0] b[7:0] t c_flag ov_flag	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	199,994 ps	199,995 ps	01: 00	001001 101010	199,998 ps	199,999 ps	01011001 00111110	

SUMA DE NUMERO POSITIVO / NEGATIVO

								300,000 ps
Name	Value	299,994 ps	299,995 ps	299,996 ps	299,997 ps	299,998 ps	299,999 ps	300,000 ps 3
► a[7:0]	01011001				01011001			
■ b[7:0]	11111111			001111	10			11111111
16 t	0							
l⊚ c_flag	1							
ov_flag - [6 r[7:0]	01011000			100101				01011000
- (FI/1.0)	01011000			100101	11			01011000
								400,000 ps
								400,000 ps
Name	Value	399,994 ps	 	399,996 ps	 399,997 ps	399,998 ps	399,999 ps	
Name • (7:0)	Value 00000010		399,995 ps	399,996 ps 010110		399,998 ps	399,999 ps	400,000 ps 4
		399,994 ps	399,995 ps			399,998 ps	399,999 ps	400,000 ps 4
■ a[7:0]	00000010	399,994 ps	399,995 ps		01	399,998 ps	399,999 ps	400,000 ps 4
a[7:0] a[7:0] t	00000010	399,994 ps	399,995 ps		01	399,998 ps	399,999 ps	400,000 ps 4
a[7:0] b[7:0] t c_flag	00000010 11111111 0	399,994 ps	399,995 ps		01	399,998 ps	399,999 ps	400,000 ps 4
■ a[7:0] ■ b[7:0] □ t	00000010	399,994 ps	399,995 ps		D1 111111111	399,998 ps	399,999 ps	400,000 ps 4

SUMA NUMERO NEGATIVO/POSITIVO

								500,000 ps	
Name	Value	499,994 ps	499,995 ps	499,996 ps	499,997 ps	499,998 ps	499,999 ps	500,000 ps	1500,0
▶ 🧓 a[7:0]	11110110			000000	10			11110110	
► 5 b[7:0]	00000001			111111	11			00000001	
16 t	0								
1‰ c_flag	0								
1⊌ ov_flag	0								
► [7:0]	11110111			000000	D1			11110111	

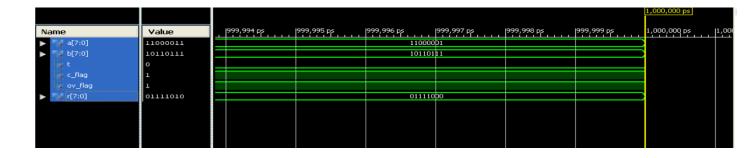
									600,000 ps	^
Name	Value	١.	599,994 ps	599,995 ps	599,996 ps	599,997 ps	599,998 ps	599,999 ps	600,000 ps	600,0
▶ 🦓 a[7:0]	11111110	l			111101	10			11111110	
▶ 🦓 b[7:0]	00000001	Ľ				00000001				
16 t	0	L								
1€ c_flag	0	L								
1∰ ov_flag	0	L								
r[7:0]	11111111	L			111101	11			11111111	
		ł								

--OVERFLOW SUMA

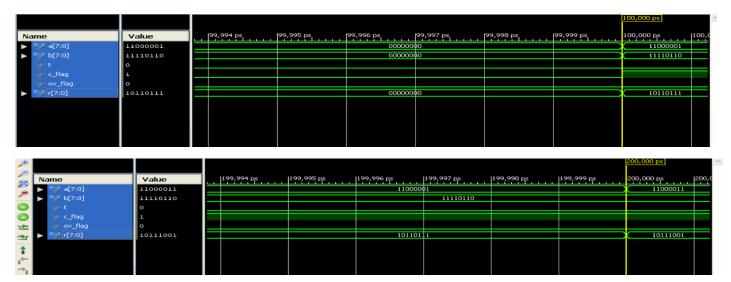
								700,000 ps
Name	Value	699,994 ps	699,995 ps	699,996 ps	699,997 ps	699,998 ps	699,999 ps	700,000 ps
► a[7:0]	01000000			11111				01000000
■ b[7:0]	01000000			00000	001			01000000
16 t								
1€ c_flag								
1€ ov_flag	1							
r[7:0]	10000000			11111	111			10000000
								800,000 ps
								000)000 p3
lame	Value	1799 994 ps	1700 005	1700 004	1700 007 pc	1700 000	1700 000 oc	800 000 pc 8
	value		1/99,999 bs	799,996 ps	1,22,22, b2 · · ·	799,998 ps		
™a[7:0]	01110011	799,994 ps	799,995 ps	799,996 ps 010000		799,998 ps	799,999 ps	800,000 ps (6
a[7:0] b[7:0]		7,55,55,15	yaa,aac bs		000	799,998 ps	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
	01110011	755,551,65	, 49, 490 h2	010000	000	799,998 ps	199,999 ps	01110011
5 b[7:0]	01110011 00101010	, 733,371,13	, yaa'aao b	010000	000	799,998 ps	2 di ceci ce	01110011
5 b[7:0] 16 t	01110011 00101010	, 7,5,5,7,13	1,33,330 b2	010000	000	799,996 BS	(25,535 kg	01110011
b[7:0] t c_flag	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , ,	010000))))	/99,996 ps	, (39,999 pg	01110011
b[7:0] c_flag c_flag c_flag	0 0 0 0 1	, , , , , , , , , , , , , , , , , , , ,	D COC IC	010000))))	799,990 ps	799,999 µ5	01110011
b[7:0] t c_flag ov_flag	0 0 0 0 1	, 73,37,137	C C C C C C C C C C C C C C C C C C C	010000))))	799,998 ps	799,999 µ5	01110011

--OVERFLOW NEGATIVES

									900,000 ps
Name	Value	١.	899,994 ps	899,995 ps	899,996 ps	899,997 ps	899,998 ps	1899,999 ps	900,000 ps 900
▶ 🌃 a[7:0]	11000001	ΠĒ			011100	11			11000001
► 5 b[7:0]	10110111	ш			001010	10			10110111
7@ t	0	1.							
∃‰ c_flag	1	Н_							
16 ov_flag	1								
r[7:0]	01111000				100111	D1			01111000

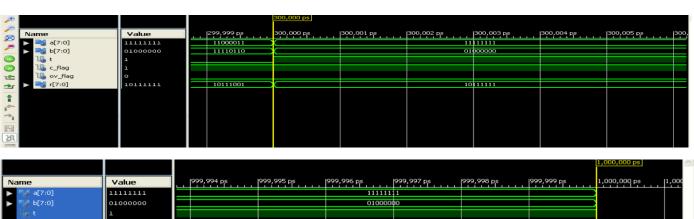


CARRY OUT SUMA



CARRY OUT RESTA

10111111



10111111