# 2 Input Multiplexer

Name	Value	0 ns	50 ns	100 ns	150 ns    2
₩ In0	0				
₩ In1	1				
₩ s	1				
¼ z	1				

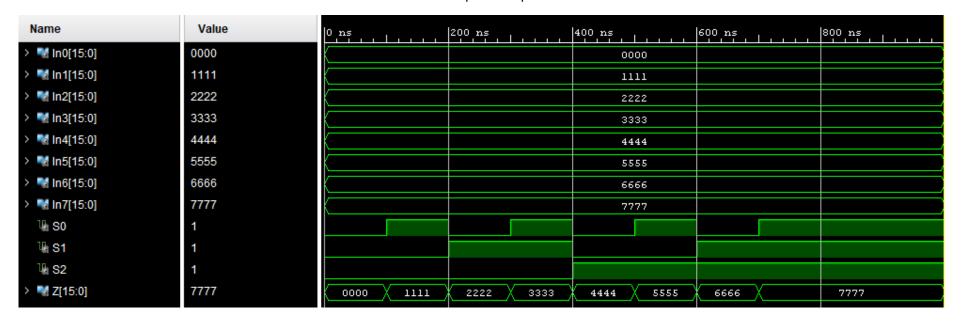
## 4 Input Multiplexer

Name	Value	0 ns	100 ns	200 ns	300 ns
⅓ In0	0				
¼ In1	1				
⅓ In2	0				
₩ In3	1				
₩ S0	1				
₩ S1	1				
₩z	1				

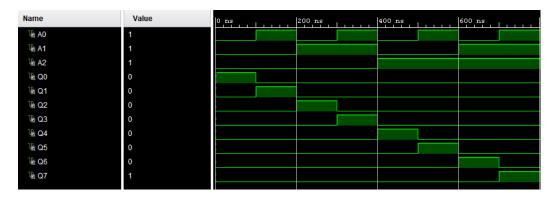
# 16 Bit 2 Input Multiplexer

Name	Value	0 ns	50 ns	100 ns	150 ns	200 ns	250 ns
> 🔣 In0[15:0]	0000				0000		
> 🔣 In1[15:0]	1111				1111		
₩ s	1						
> 🔣 Z[15:0]	1111	00	00	K		1111	

## 16 Bit 8 Input Multiplexer



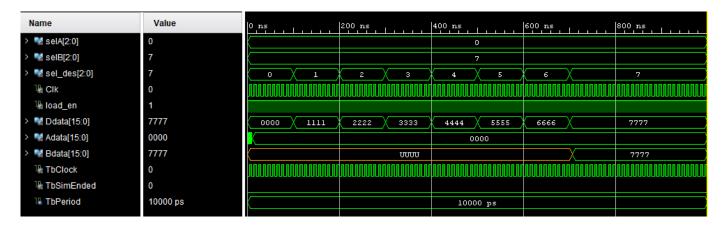
3 To 8 Decoder



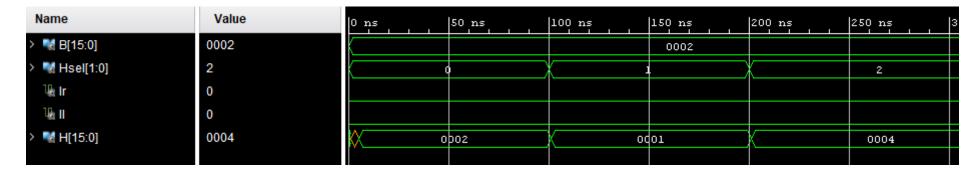
## Register

Name	Value	0 ns	100 ns	200 ns	300 ns	400 ns	500 ns
> Nd D[15:0]	3333	00	00	1111	2222		3333
₩ load	1						
¹l⊪ Clk	0			$\mathbf{n}$		$\mathbf{n}$	$\mathcal{M}$
> 🌃 Q[15:0]	3333	שטט	0000	X 1	111	Χ	3333
₩ TbClock	0			$\mathbf{n}$		$\mathbf{n}$	$\mathbf{n}$
₩ TbSimEnded	0						
TbPeriod     TbPeriod	10000 ps				10000 ps		

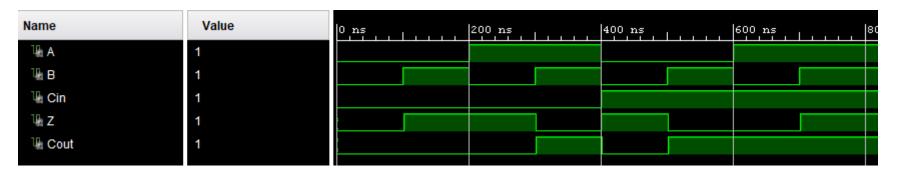
## Register File



#### Shifter



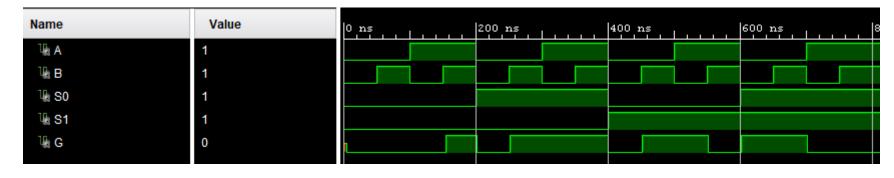
## Full Adder



## Arithmetic Bit Slice



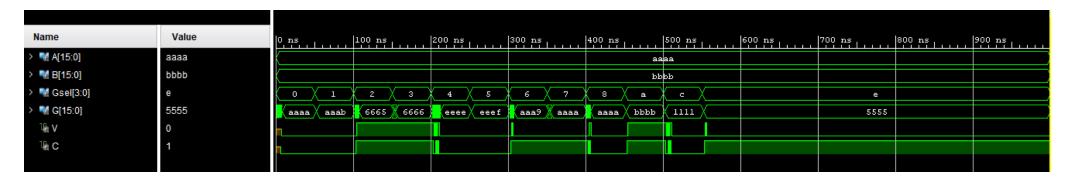
## Logic Bit Slice



#### **ALU Bit Slice**

Name	Value	0 ns	50 ns	100 ns	150 ns	200 ns	250 ns	300 ns	350 ns	400 ns
¹la A	1									
Va B	0									
¹la Cin	0									
¹∄ <b>S0</b>	1									
Ū S1	1									
₩ S2	1									
₩ G	0					П				
₩ Cout	1			Í						

#### ALU



#### **Functional Unit**



#### Datapath

																											3,008.000
Name	Value	0 ns		200 ns		400 ns		600 ns		800 ns		1,000 ns	1,200 ns	1,	400 ns	1,600 ns	1	,800 ns	2,000	ns	2,200	ns	2,400	ns	2,600	ns	2,800 ns
₩ CLK	1																										
> 🔣 Con_wor[16:0]	00200	00003	04903	09203	0qP03	12403	16403	15603	1ff03	08081	00200	08085 00200	08089 002	00 0	8084 (00200)	08091 002	00 X	08095 00200	08099	00200	08094	00200	00003	080a	0020	080a9	00200 (080ы
>   Con_in[15:0]	1111				00	00					as	aa	X	0002	:		fff	d	0	000	a	aaa	5555	χ		1111	
> 🦋 Dat_in[15:0]	bbbb	0000	1111	2222	3333	4444	5555	6666	7777	X		8888		$=$ $\!$	1111			bl	bbb				0000	χ		bbbb	
> 🔣 Add_out[15:0]	0000	0000	1111	2222	3333	4444	5555	6666	7777	X								0000									
> 🛂 Dat_out[15:0]	1111	0000	1111	2222	3333	4444	5555	6666	7777	aaaa	0000	aaaa <b>X</b> 00001	0002	0002	2 0003	fffd X0000	12	fffd 0003	0000	ffff	aaaa	χ ο	000	1111	0000	1111	1111
<b>₩</b> Vout	0																										
<b>™</b> Cout	0	H																									
<b>™</b> Nout	0		П	1	ı	П	1		1																		
<b>¼</b> Zout	1		1	li .																							
<b>¼</b> TbClock	1		<u>Timili</u>	i i de la composición		1	imm.		İIIIII					ШΤ										$\Pi\Pi\Pi$			dononnonnon de la composición de la co
TbSimEnded	0																										
□ TbPeriod	10000 ps														10000 ps												

