Implimentation of a full adder using multiplexer

For this implementation we are using two 4:1 multiplexers.

Truth table:

Input(A,B,C) Output(Sum,Carry)

A	B	C	Sum	Carry
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

K-map for sum and carry:

Sum-

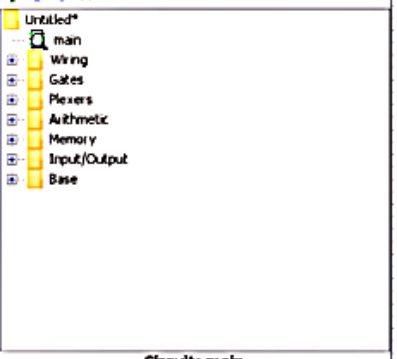
C/AB	00	01	11	10
0	0	1	0	1
1	1	0	1	0

Carry-

C/AB	00	01	11	10
0	0	0	1	0
1	0	1	1	1

Logisim: main of Untitled

File Edit Project Simulate Window Help



Circuit: main

Circuit Name	main
Shared Label	
Shared Label Facing	East
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