

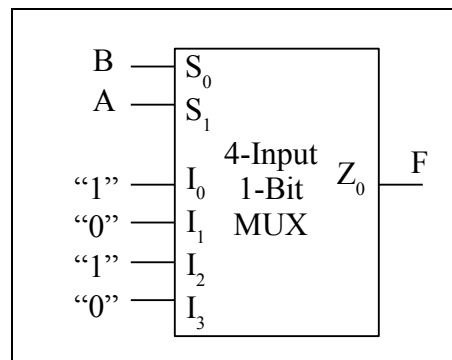
Rapid Prototyping (part 2)

Using Multiplexers

- For N-Input truth table and 2^N -input MUX.
 - Use N truth table inputs as address.
 - Each of the 2^N inputs corresponds to one minterm being true
 - Set the input to the corresponding output.

e.g., $F_{x,y} = \sum(0,2)$

A	B	F
0	0	1
0	1	0
1	0	1
1	1	0



Using Multiplexers – Efficient Technique

- For N-Input truth table and 2^{N-1} -input MUX.
 - Group N-1 highest order inputs into pairs (here A and B).
 - Write output function of each pair using Nth input (here C).

A	B	C	F
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	0
1	1	0	1
1	1	1	0

