The BUT & NBUT boolean logic

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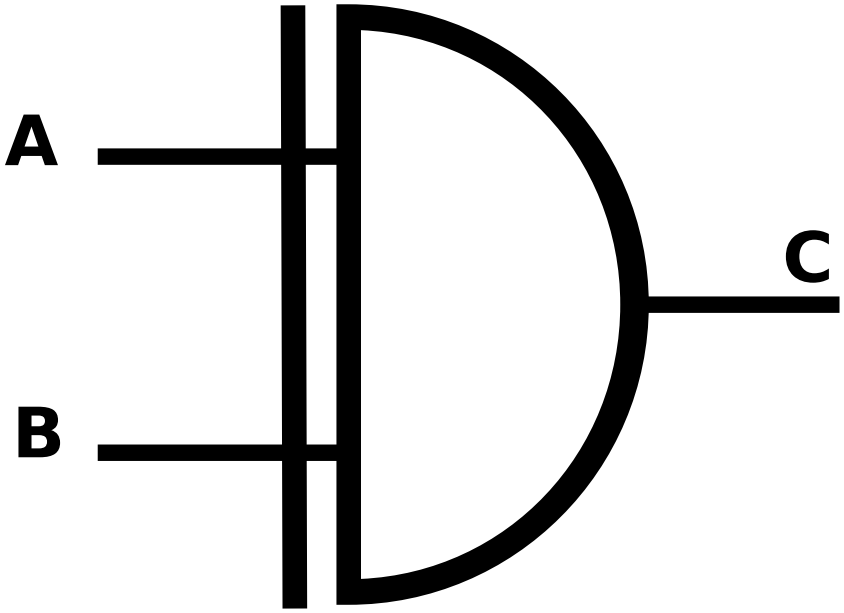
The BUT Operator

The BUT operator accepts two or more inputs and produce an output by following the boolean expression

Q = A BUT B => NOT(A) AND B

The BUT Operator

It also makes sense that only when the inputs are contrast with one another BUT logic works to select the dominant case. Similar to the Exclusive OR logic we can call BUT logic as Exclusive AND or simply XAND



The BUT Operator

Truth Table for 2-input BUT Logic		
A	**B**	**Q**
0	0	0
0	1	1
1	0	0
1	1	0

Boolean Expression $\mathbf{Q = \overline{A} .B}$

NOT of A AND with B results Q

The NBUT Operator

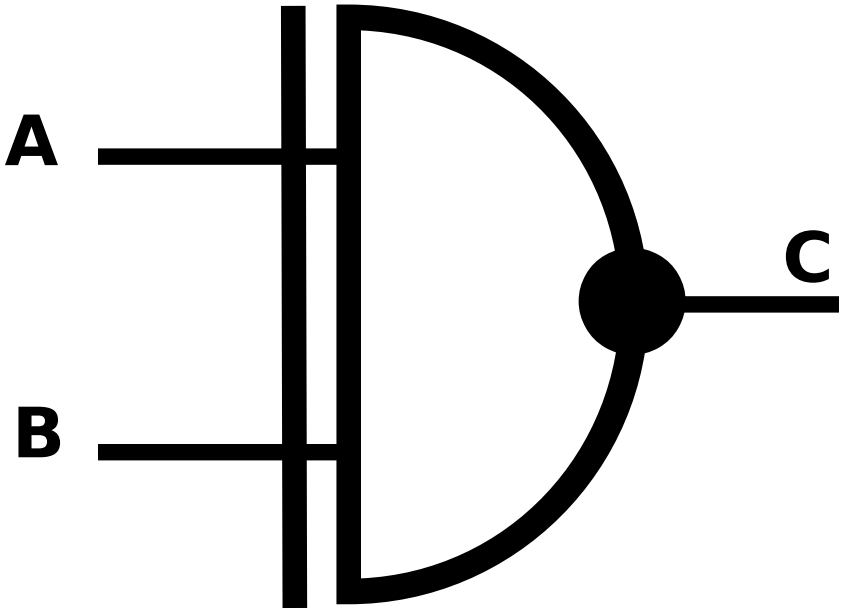
The NBUT operator accepts two or more inputs and produce an output by following the boolean expression

Q = A NBUT B => NOT(NOT(A) AND B)

Q => A OR NOT(B)

The NBUT Operator

NBUT is just the opposite of BUT logic built with OR logic. Here when the inputs are contrast with one another NBUT logic selects the inferior case.



The NBUT Operator

Truth Table for 2-input NBUT Logic		
A	**B**	**Q**
0	0	1
0	1	0
1	0	1
1	1	1

Boolean Expression $\mathbf{Q = A + \overline{B}}$

A OR with NOT of B results Q

Thanks for Reading

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