



# **UNIVERSIDADE FEDERAL DE RORAIMA**

## **Praticando Circuitos Digitais**

**Prof. Herbert Oliveira Rocha**

# Praticando Circuitos

<http://www.cburch.com/logisim/>

## Logisim

*a graphical tool for designing  
and simulating logic circuits*

**Download**

**Documentation**

**Release History**

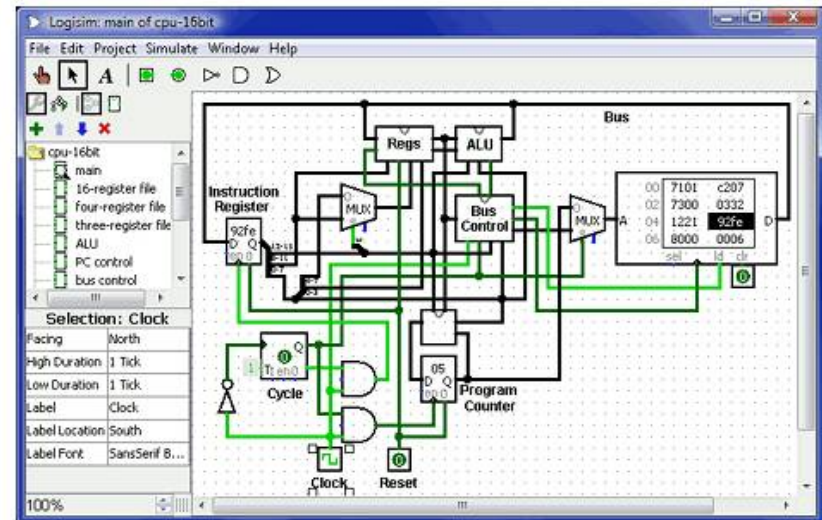
**Q & A**

**Comments**

**Links**

[de] Deutsch

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Screen shot of Logisim 2.7.0

# Praticando Circuitos

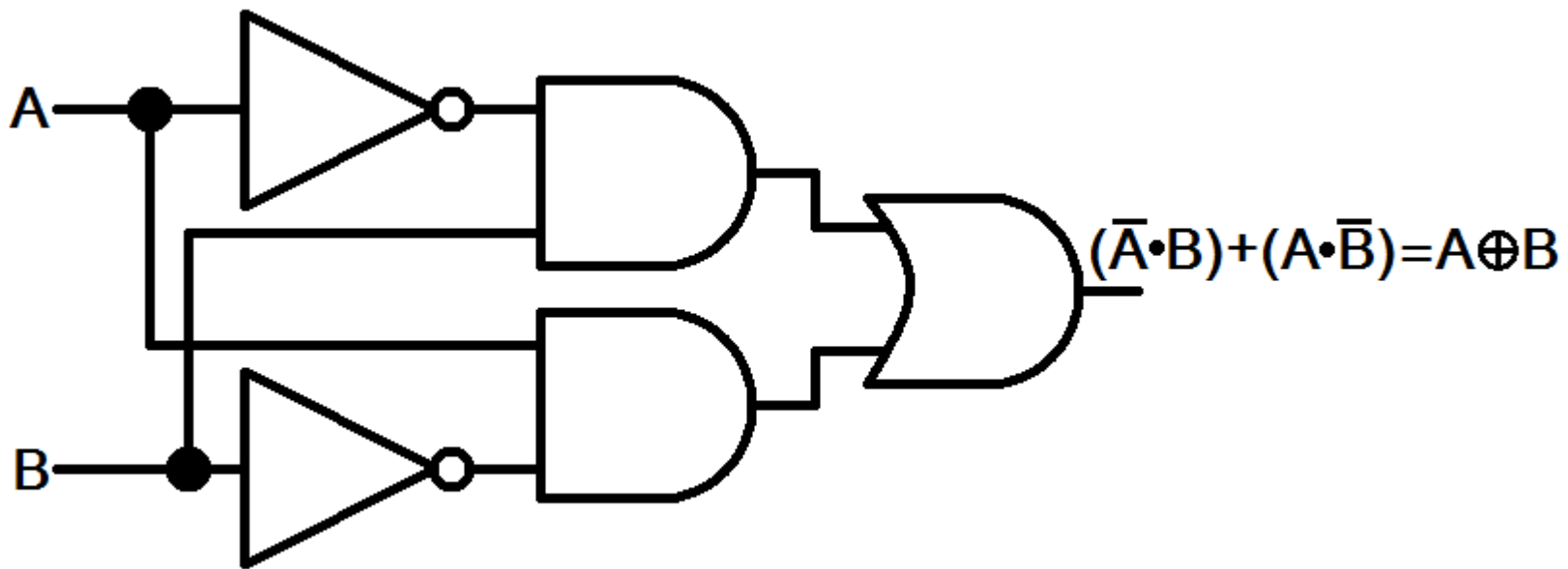
Qual o circuito para XOR?

TABELA VERDADE - XOR		
A	B	A#B
0	0	0
0	1	1
1	0	1
1	1	0

# Praticando Circuitos

Qual o circuito para XOR?

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# Praticando Circuitos

Qual o circuito para um registrador - FlipFlop?

D Flip-flop

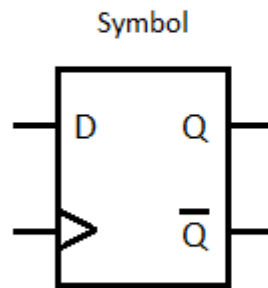


Table of truth:

clk	D	Q	$\overline{Q}$
0	0	Q	$\overline{Q}$
0	1	Q	$\overline{Q}$
1	0	0	1
1	1	1	0

# Praticando Circuitos

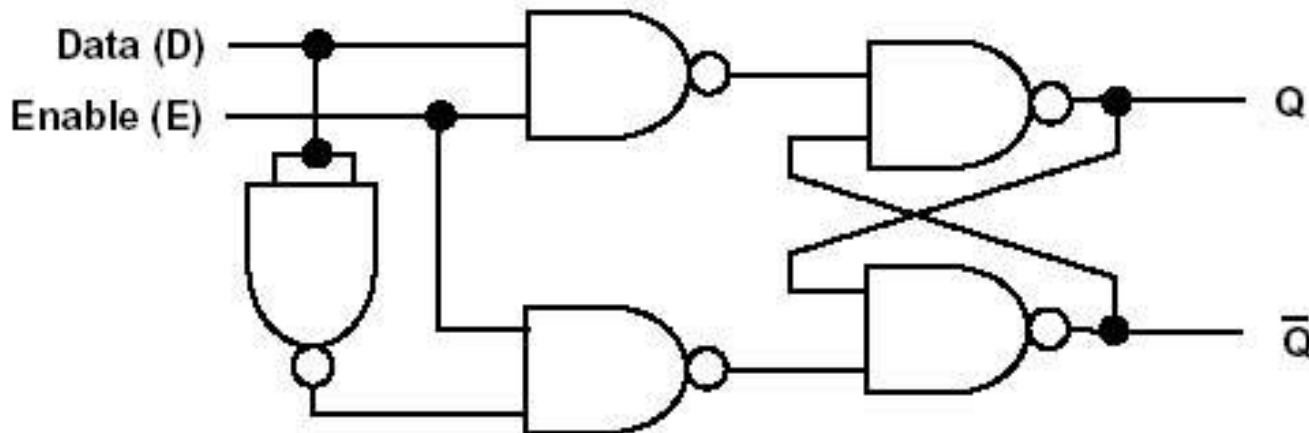
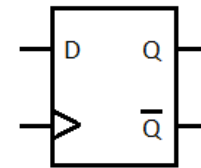
Qual o circuito para um registrador - FlipFlop?

D Flip-flop

Table of truth:

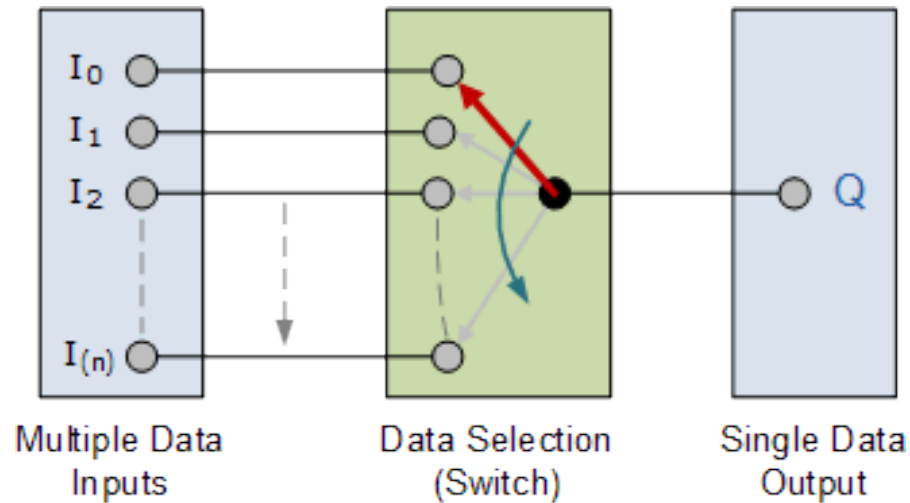
clk	D	Q	$\overline{Q}$
0	0	Q	$\overline{Q}$
0	1	Q	$\overline{Q}$
1	0	0	1
1	1	1	0

Symbol



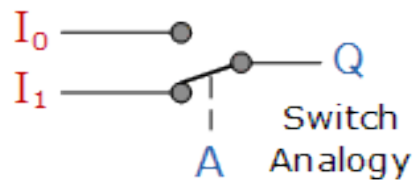
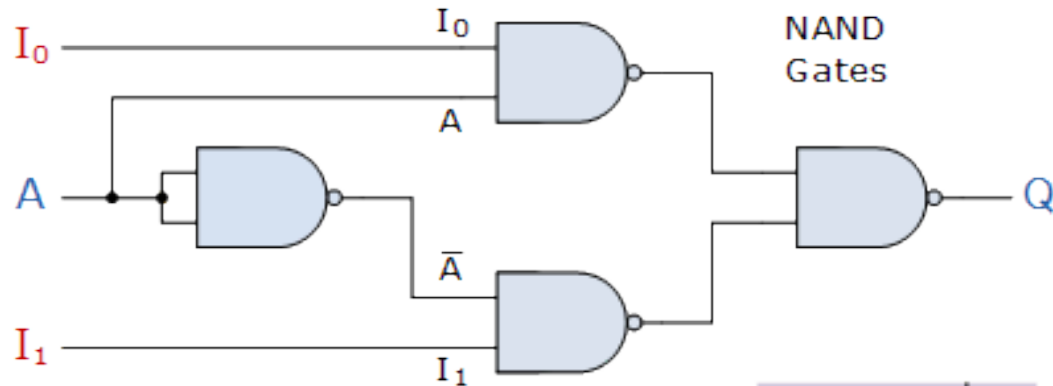
# Praticando Circuitos

Qual o circuito para um multiplexador de 2 bits?



# Praticando Circuitos

Qual o circuito para um multiplexador de 2 bits?



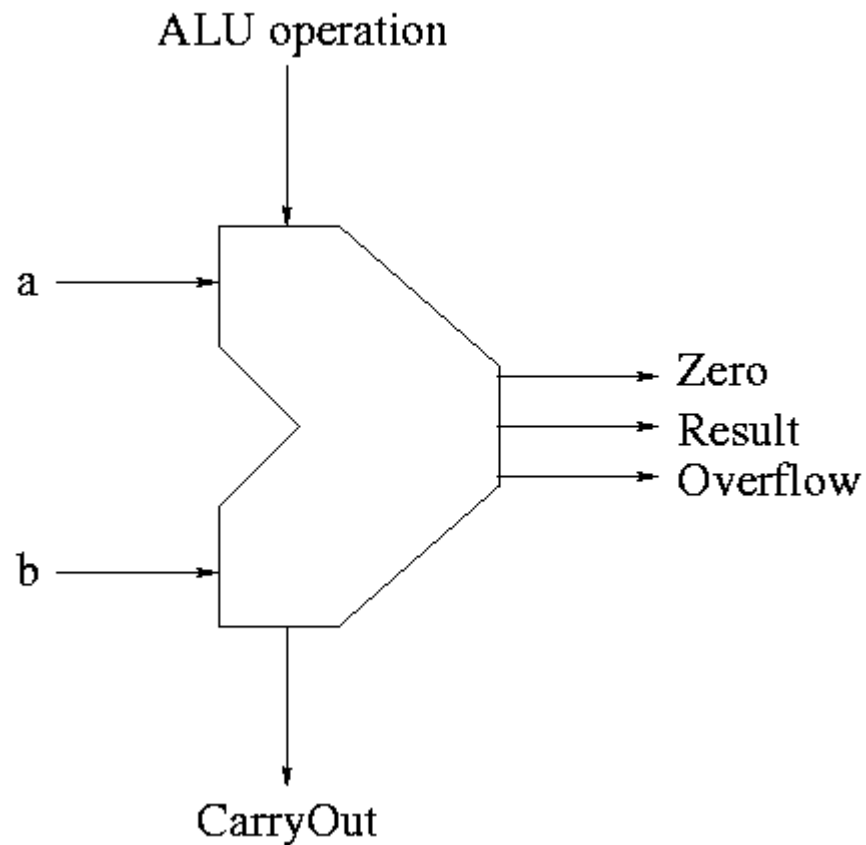
Truth  
Table

Inputs			Q
A	$I_1$	$I_0$	
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1



# Praticando Circuitos

Qual o circuito para uma ALU de 3 bits?



# Praticando Circuitos

Qual o circuito para uma ALU de 3 bits?

