Gates memory

From Wiremod Wiki

Contents

D-Latch

Inputs:	N Data Clk
Outputs:	N Out
Description:	The D-Latch will keep updating as long as its Clk input is positive. It outputs whatever value is currently stored.

Latch (Edge triggered)

Inputs:	N Data Clk
Outputs:	N Out
Description:	The Latch is Edge-Triggered, meaning that it only stores the value when the Clk input changes from 0 to positive. In order to change the data stored, the Clk input must go back to zero or negative and then back to positive. The Latch will output whatever value is currently stored.

RAM

Inputs:	N Data AddrRead AddrWrite Clk Reset
Outputs:	N Out
Description:	These memory chips works like a row of data, where you specify the address you want to write to (and the address you want to read from).

Remember: The row starts with zero: 0, 1, 2, 3, 4 and so on. This concept is very similar to arrays in programming.

RS-Latch

Inputs:	N S R
Outputs:	N Out
Description:	SR is short for "Set-Reset". The chip keeps the first value input to S. When R is positive, the value of S is reset.

SR-Latch

Inputs:	N S R
Outputs:	N Out
Description:	Same as RS-Latch, The difference is that each input has to 0 in order for the other to work.

Toggle (Edge triggered)

Inputs:	N Clk OnValue OffValue
Outputs:	N Out
Description:	This chip toggles between two values when its Clk input is positive. Its OffValue and OnValue inputs specify these two values. Like the Latch, the Toggle chip is also Edge-Triggered. When created, the Toggle chip begins Off.

Toggle While(Edge triggered)

Inputs:	N Clk OnValue OffValue
Outputs:	N Out
Description:	This chip toggles between two values when its Clk input is positive. Its OffValue and OnValue inputs specify these two values. Like the Latch, the Toggle chip is also Edge-Triggered. When created, the Toggle chip begins Off. As addition While has to be 1 in order to toggle to the OnValue.

Up/Down Counter

Inputs:	N Clk Increment Decrement Reset
Outputs:	N Out
Description:	When Clk is triggered, outputs 1 when Increment is 1, outputs 0 when Decrement is 1. Doesn't do anything when Increment and Decrement are equal.

Write Only Memory(4 store)

Inputs:	N Data AddrWrite Clk
Outputs:	N Out
Description:	Use this gate to store secret data which you don't want anyone to read, including yourself.