Multiplxer Design and simualation

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Abstract—**At the start a brief and concise introduction to multiplexer specifically a simplest 2 1 multiplexer is provided with the explanation of the output they will show.A multiplexer can also be referred as a mux in short form and 2 1 mux is the simpler of its kind**

I. REFERENCE CIRCUIT DETAILS

A simple multiplexer is used to display a number of input signals on a single output line with the help of a select switch. A total of 2^n input signals can be displayed on a single output line with the help of **n** select switch. A simple multiplexer diagram and functionality is shown in the figure 1

Depending on the value of the select switch one out of all the inputs will be displayed at the output as is obvious from the figure 1
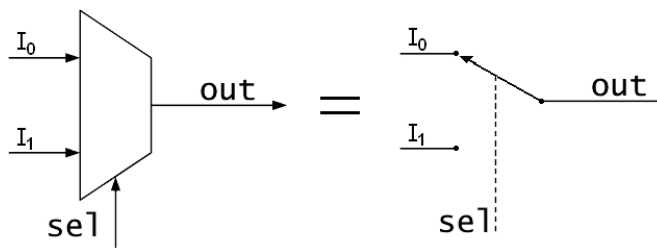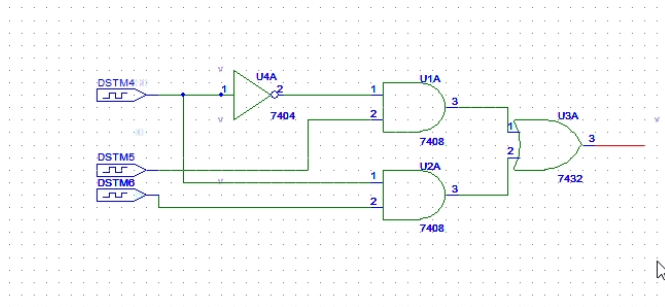

Fig. 1.

Fig. 2. Complete circuit diagram

Fig. 3.

II. OUTPUT

The output of the circuit shows that when the select switch is 0, the value at the input I0 will be displayed at the output Vout. Similarly, when the select switch is 1 then the value at the input line I1 will be mirrored on the output Vout. The select switch will select which out of all the inputs which of the input will be displayed on the single line output.
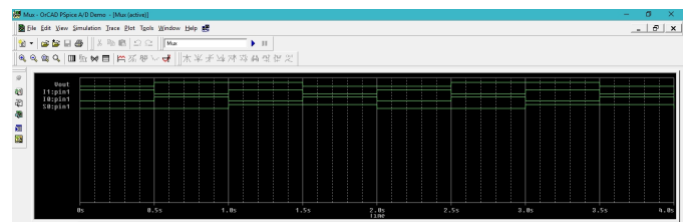
REFERENCE

https://microcontrollerslab.com/multiplexer-design-simulation-pspice/