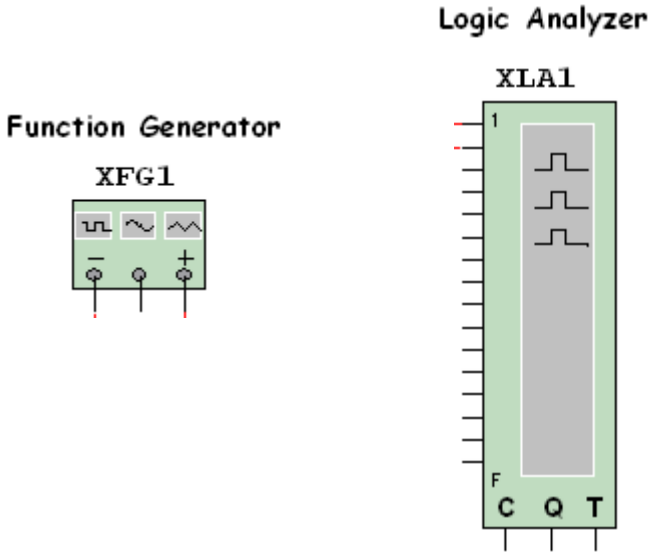
Lab Project 1
2Bit Binary Counter Simulation Notes

To simulate a 2Bit Binary Counter in Multisim requires two important pieces of test equipment: Function Generator and a Logic Analyzer



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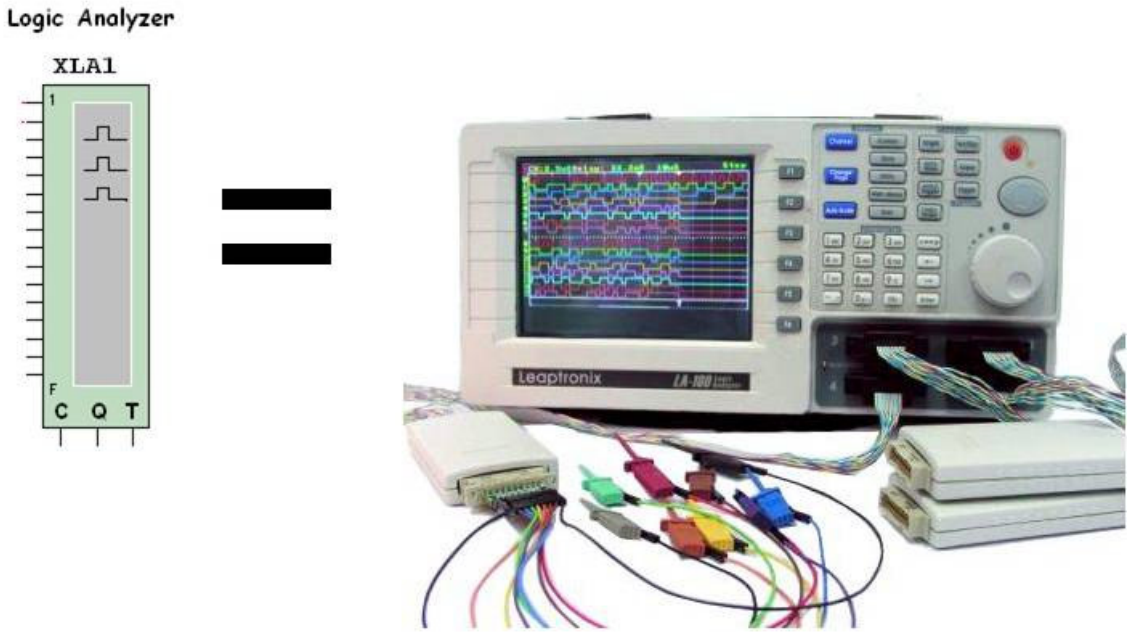
A Logic Analyzer is used for fast data acquisition of logic states and advanced timing analysis to help design large digital systems and carry out troubleshooting.



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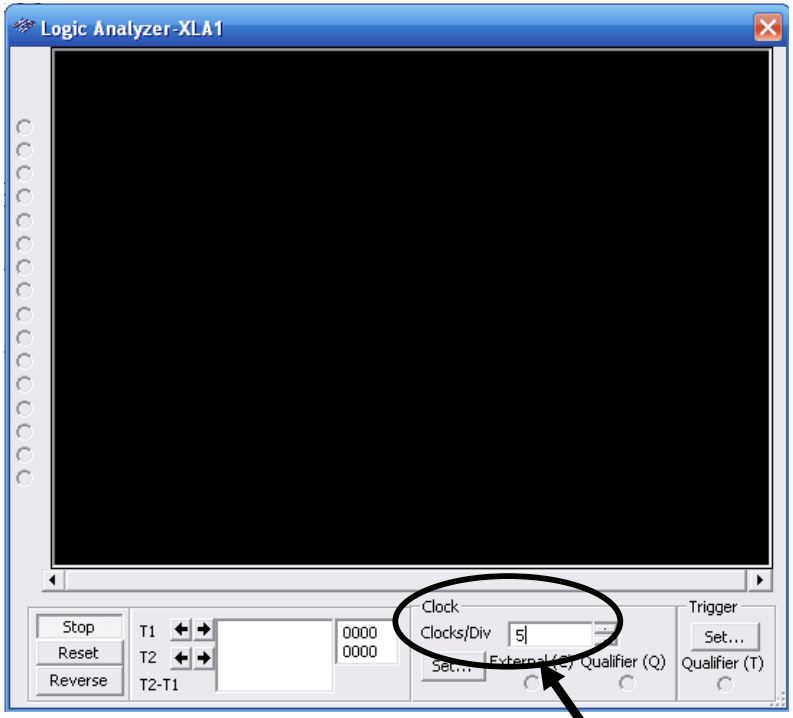
Double click the Logic Analyzer Icon with the mouse and adjust the test instrument as shown in the Figure below.



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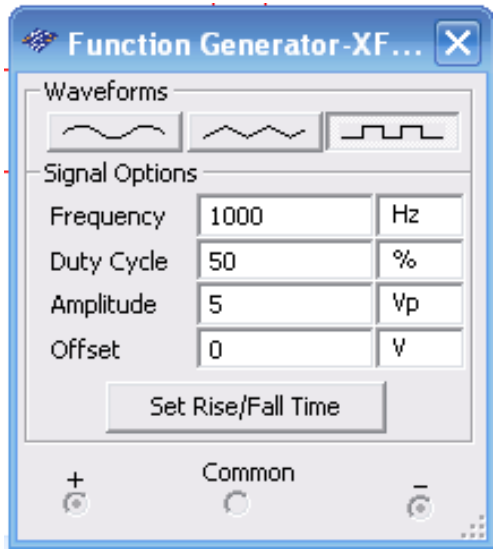
Double click the Function Generator Icon with the mouse and adjust the test instrument as shown in the Figure below.



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Lab Procedure

- Build the 2Bit Binary Counter in Multisim.
- Run a simulation event on the digital circuit.
- The Logic Analyzer shall display a series of square-wave pulses on the screen.

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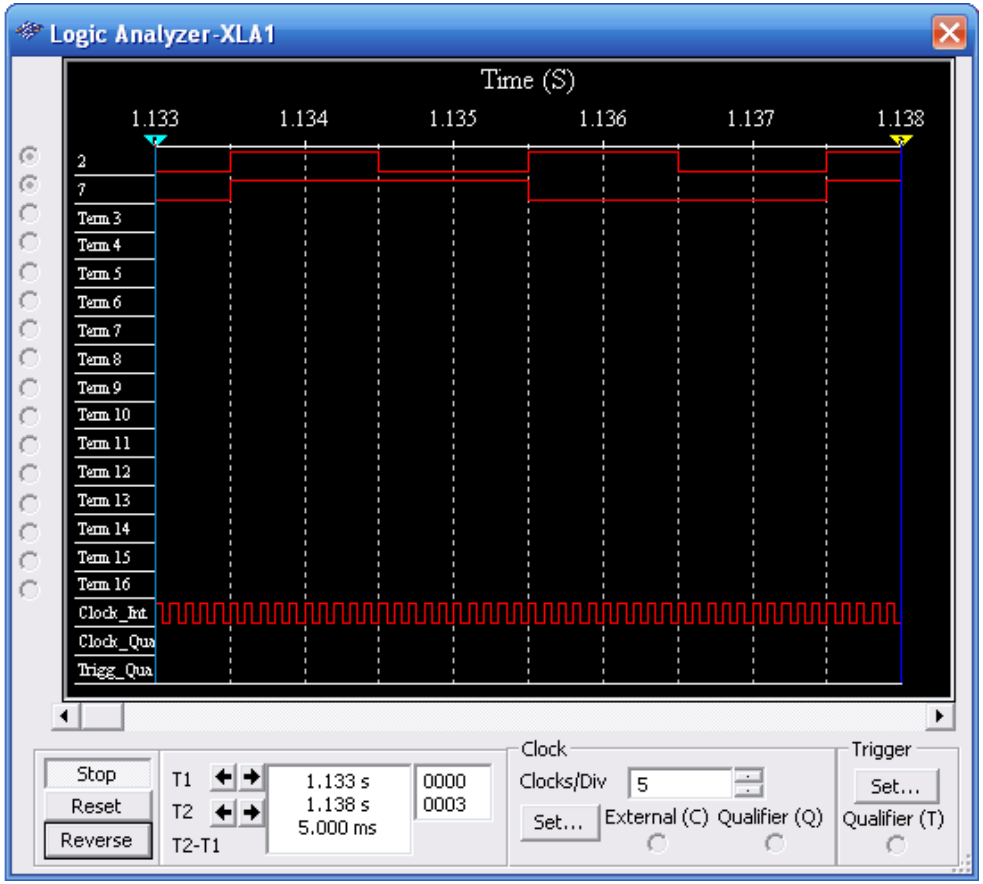
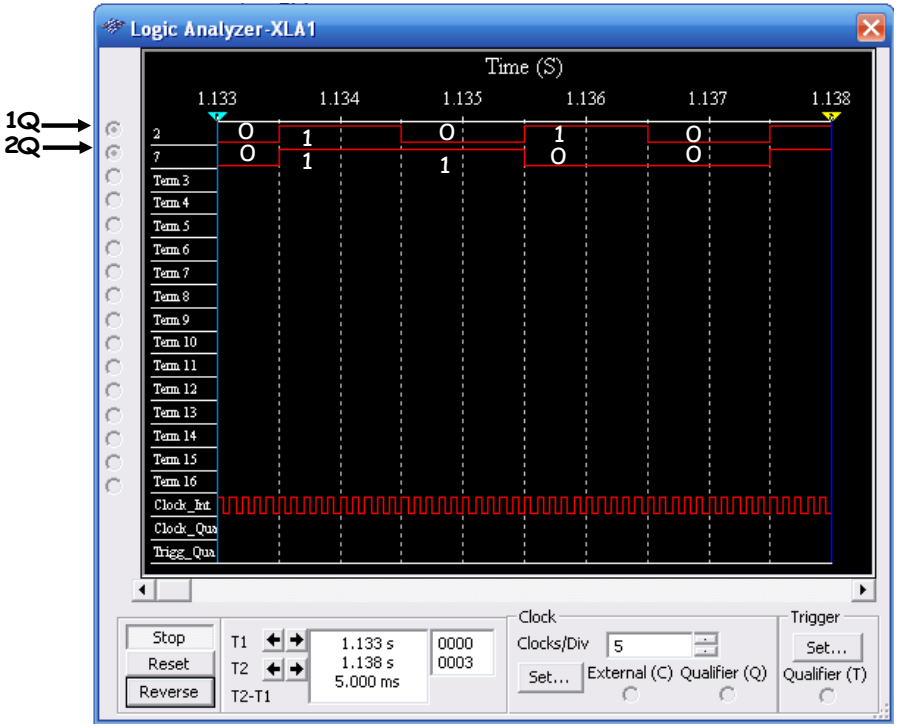


Lab Project 6
An Inverting Comparator

Convert the square-wave pulses into Binary "1s" and "0s" data.



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The Binary to Decimal Conversion Table shows the Count Value of the digital circuit.

2Q	1Q	Count Value
1	1	3
1	0	2
0	1	1
0	0	0