CS240 Lab 8 Assignment

Refer to the lecture notes for Friday 10/31 to help you with this assignment.

Examine the LogicWorks circuit on the next page.

The D latches have 3 inputs: D (data), C (clock), and R (asynchronous reset, active low).

The heavy blue lines are called "breakouts" in LogicWorks, and are a way to group n wires together when drawing the circuit (to make the diagram simpler to draw). In this diagram, the blue lines represent 4 wires.

The triangular symbols are **tri-state buffers** (as labeled in the diagram), and described in lecture. The enable line for the tri-state buffers is active low.

Answer the following questions.

1. Describe the overall purpose of this circuit.

2. How is the 2x4 decoder used?

3. What is the purpose of the tri-state buffers?