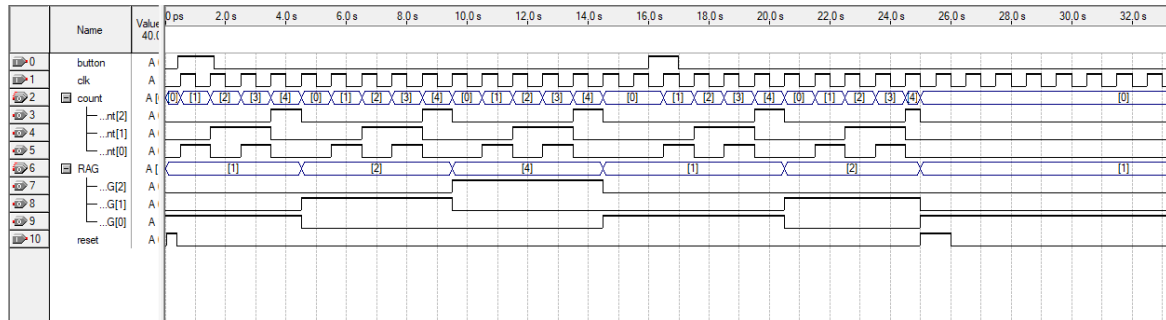
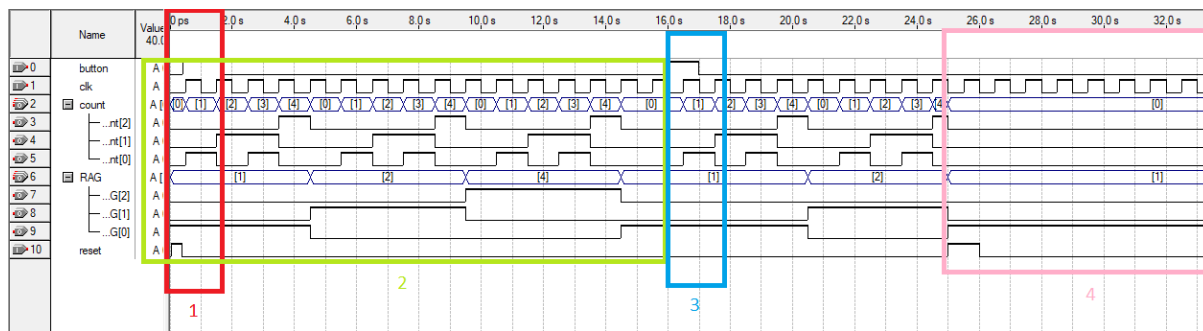


# SIMULATION EXPLANATION

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As we can appreciate, in this simulation we have pushed the button one time at the beginning (and it is initially reset) so the process will be carried out, just one time. After the red light, it will stay green, until the button is pushed again, and after reset is activated to prove that it will restart the values:



**SITUATION 1:** At the beginning, the reset restarts the values: counter = 0 and light = green, and after that the pressed button starts the process.

**SITUATION 2:** In this case, the light changes every 5 seconds(0-4 in the counter) of color(green(001) - amber(010) - red(100)), meanwhile the button's value doesn't matter until we reach the green light again.

**SITUATION 3:** We have reached the green light again and as the button is on, starts counting again, hence, switching lights.

**SITUATION 4:** Reset is activated during the process, interrupting it careless of the current state (goes back to start state), it waits until reset is turned off and the button is pressed to repeat all the process.