

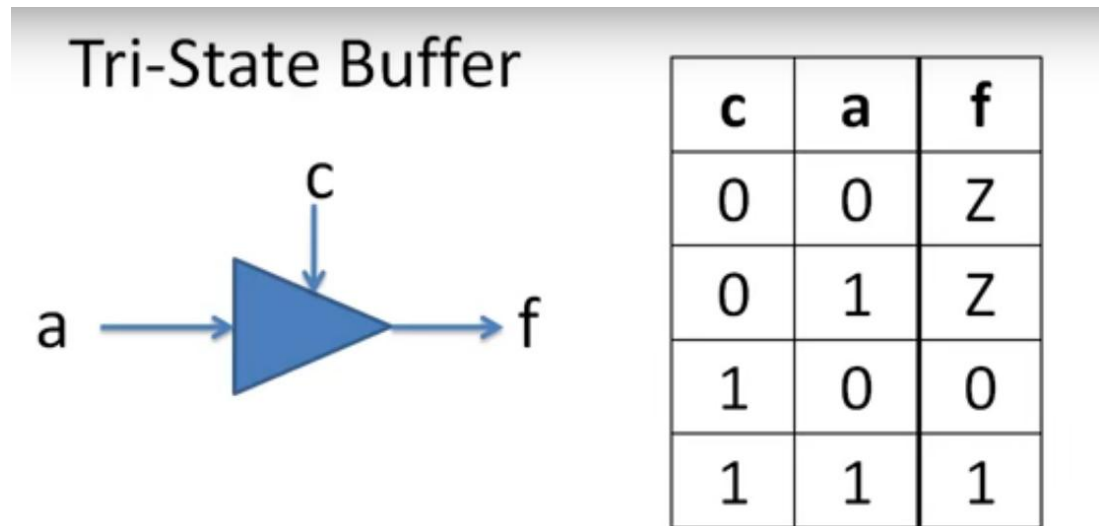
Digital design (A)

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-Tri-state Bus Architecture

- First of all we will define tri-state buffer.
- Tri-state buffers have 3 lines : *input(a)* , *output(f)* , *control(c)*.
- Hint : z is high impedance which means a very little current will pass through the buffer.
- It has two types : 1- active high control , 2-active low control.



- Control bit acts as a valve that shuts current on or off.
- Actually we can use muxs instead of tri-state buffers but muxs is more complex and much more expensive.
- we can use tri-state buffers and control which data will go out by controlling it's control bit , however ,if you make a mistake in the design of the tri-state of our selection circuit the result will be much more catastrophic than a mistake in the design of mux.