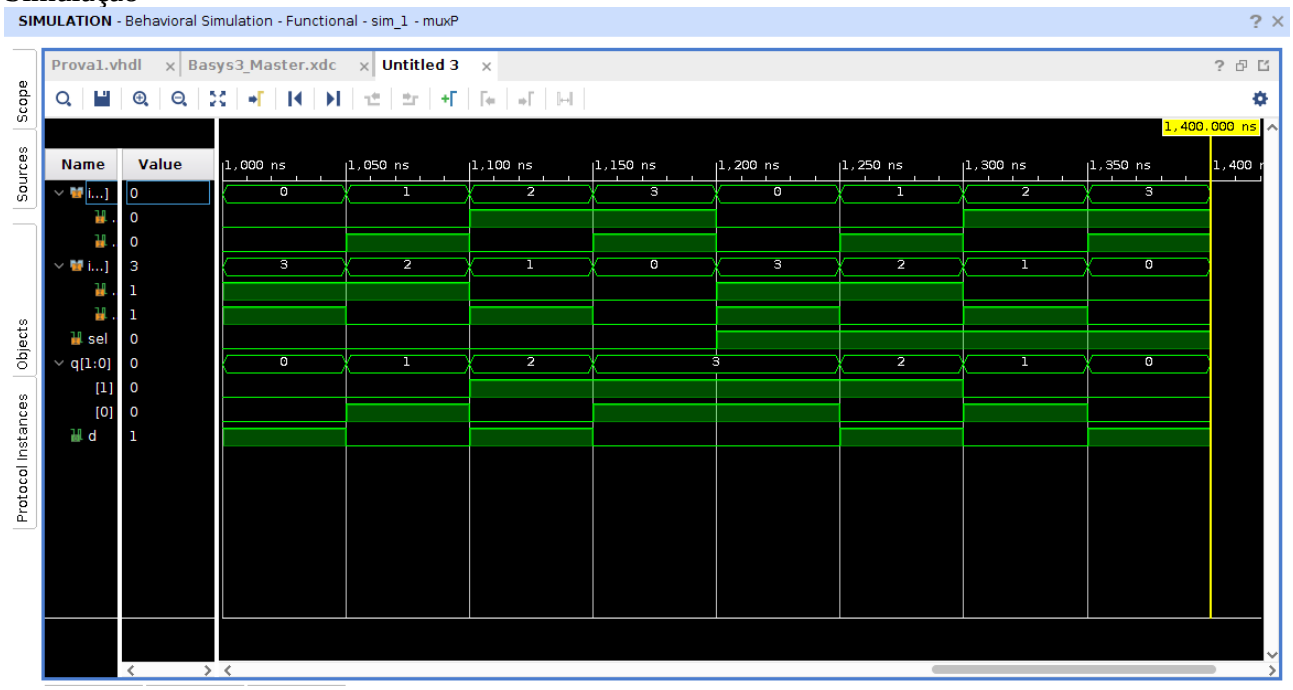
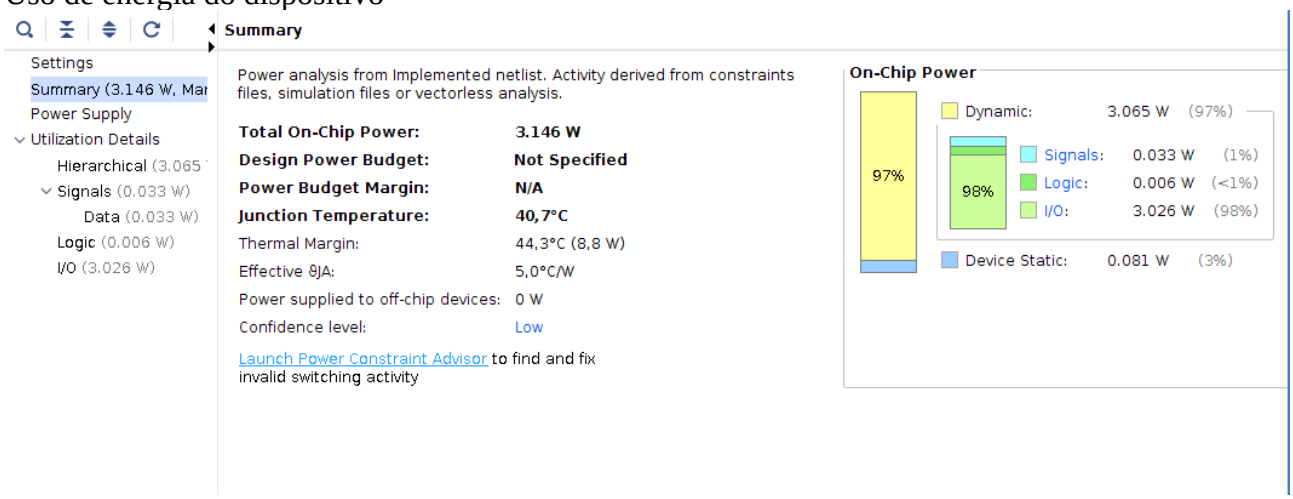
```
library IEEE;
use IEEE.STD_LOGIC_UNSIGNED.ALL;
use IEEE.STD_LOGIC_1164.ALL;

entity muxP is
port(
                in0, in1      : in STD_LOGIC_VECTOR (1 downto 0);
                sel           : in   bit;
                q             :inout STD_LOGIC_VECTOR (1 downto 0);
                d             : out bit
      );
end entity;
architecture arcMux of muxP is
begin
--q é a saída do circuito
        q <= in0 when sel='0'
                        else in1;
        d <= '1' when q = "00"
            else '1' when q = "10"
            else '0';
end architecture;
```

Simulaçao



Uso de energia do dispositivo



Esquemático