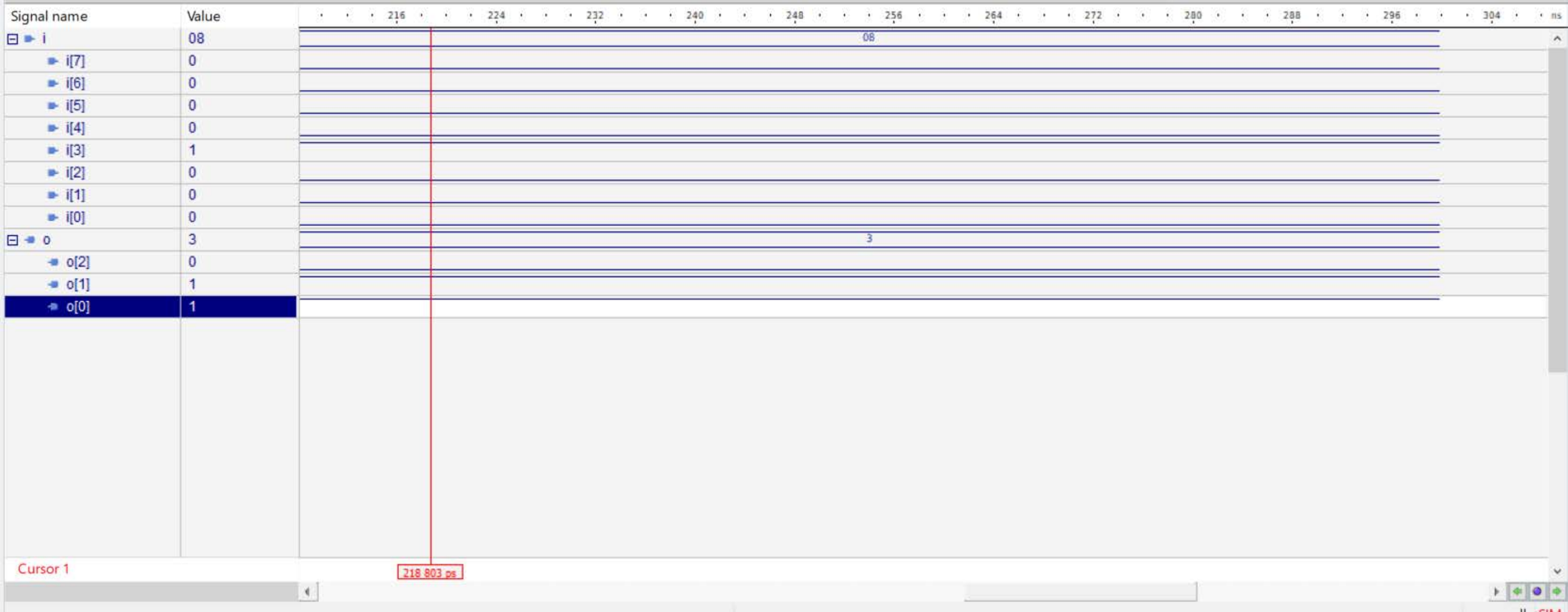
Encoder

```
1   library ieee;
2   use ieee.std_logic_1164.all;
3
4
5   entity enco8x3_seq is
6
7     port (
8       i : in  std_logic_vector(7 downto 0);  -- inputs
9       o : out std_logic_vector(2 downto 0));  -- outputs
10
11  end enco8x3_seq;
12
13
14  architecture beh of enco8x3_seq is
15
16  begin  -- beh
17
18    enco : process (i)
19    variable temp : std_logic_vector(2 downto 0);
20    begin
21      case i is
22        when "00000001" => temp := "000";
23        when "00000010" => temp := "001";
24        when "00000100" => temp := "010";
25        when "00001000" => temp := "011" ;
26        when "00010000" => temp := "100";
27        when "00100000" => temp := "101";
28        when "01000000" => temp := "110";
29        when "10000000" => temp := "111";
30        when others => temp := "XXX";
31      end case;
32      o <= temp;
33    end process enco;
34
35  end beh;
36
```


Signal name
Value
216
224
232
240
248
256
264
272
280
288
296
304
ns
i
08
i[7]
0
i[6]
0
i[5]
0
i[4]
0
i[3]
1
i[2]
0
i[1]
0
i[0]
0
o
3
o[2]
0
o[1]
1
o[0]
1
08
3
Cursor 1
218 803 ps