

```
library IEEE;
use IEEE.std_logic_1164.all;
use IEEE.std_logic_arith.all;
use IEEE.std_logic_unsigned.all;

entity decoder_2x4 is
    Port(i: in std_logic_vector(1 downto 0);o: out std_logic_vector(3
downto 0));
end decoder_2x4;

architecture Behavioral of decoder_2x4 is
begin
    with i select
        o <= "0001" when "00", "0010" when "01", "0100" when "10", "1000"
when "11", unaffected when others;
end Behavioral;
```