

Register with WE

Tuesday, April 13, 2021 3:28 PM

```
library IEEE;
use IEEE.STD_LOGIC_1164.all;
entity RegN is
    generic(n : natural := 8);
    port (clk : in std_logic;
          WEN : in std_logic;
          din : in std_logic_vector(n-1 downto 0);
          dout : out std_logic_vector(n-1 downto 0));
end RegN;
architecture Behavioral of RegN is
begin
    process (clk, WEN)
    begin
        if rising_edge(clk) then
            if (WEN = '1') then
                dout <= din;
            end if;
        end if;
    end process;
end Behavioral;
```

