```
 1
 2   library ieee;
 3   use ieee.std_logic_1164.all;
 4   use ieee.numeric_std.all;
 5   entity good_mux is
 6
 7   port (data0x      : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
 8         data1x      : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
 9         data2x      : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
10         data3x      : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
11         data4x      : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
12         data5x      : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
13         data6x      : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
14         data7x      : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
15         data8x      : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
16         data9x      : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
17         data10x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
18         data11x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
19         data12x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
20         data13x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
21         data14x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
22         data15x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
23         data16x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
24         data17x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
25         data18x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
26         data19x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
27         data20x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
28         data21x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
29         data22x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
30         data23x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
31         data24x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
32         data25x     : IN STD_LOGIC_VECTOR (31 DOWNTO 0);
33         sel         : IN STD_LOGIC_VECTOR (4 DOWNTO 0);
34         result      : OUT STD_LOGIC_VECTOR (31 DOWNTO 0)
35   );
36   end good_mux;
37   ---------------------------------------------------------------------------
38
39   architecture behavioral of good_mux is
40   begin
41         process (sel,data0x,data1x,data2x,data3x,data4x,data5x,data6x,data7x,data8x,data9x,↲
     data10x,data11x,data12x,data13x,data14x,data15x,data16x,data17x,data18x,data19x,data20x,↲
     data21x,data22x,data23x,data24x,data25x)
42            begin
43               case sel is
44                        when "00001" => result <=   data1x;
45                        when "00010" => result <=   data2x;
46                        when "00011" => result <=   data3x;
47                        when "00100" => result <=   data4x;
48                        when "00101" => result <=   data5x;
49                        when "00110" => result <=   data6x;
50                        when "00111" => result <=   data7x;
51                        when "01000" => result <=   data8x;
52                        when "01001" => result <=   data9x;
53                        when "01010" => result <=  data10x;
54                        when "01011" => result <=  data11x;
55                        when "01100" => result <=  data12x;
56                        when "01101" => result <=  data13x;
57                        when "01110" => result <=  data14x;
58                        when "01111" => result <=  data15x;
59                        when "10000" => result <=  data16x;
60                        when "10001" => result <=  data17x;
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61                      when "10010" => result <=  data18x;
62                      when "10011" => result <=  data19x;
63                      when "10100" => result <=  data20x;
64                      when "10101" => result <=  data21x;
65                      when "10110" => result <=  data22x;
66                      when "10111" => result <=  data23x;
67                      when "11000" => result <=  data24x;
68                      when others  => result <=  data25x;
69                  end case;
70        end process;
71  end behavioral;
72  --------------------------------------------------------------------------------
```