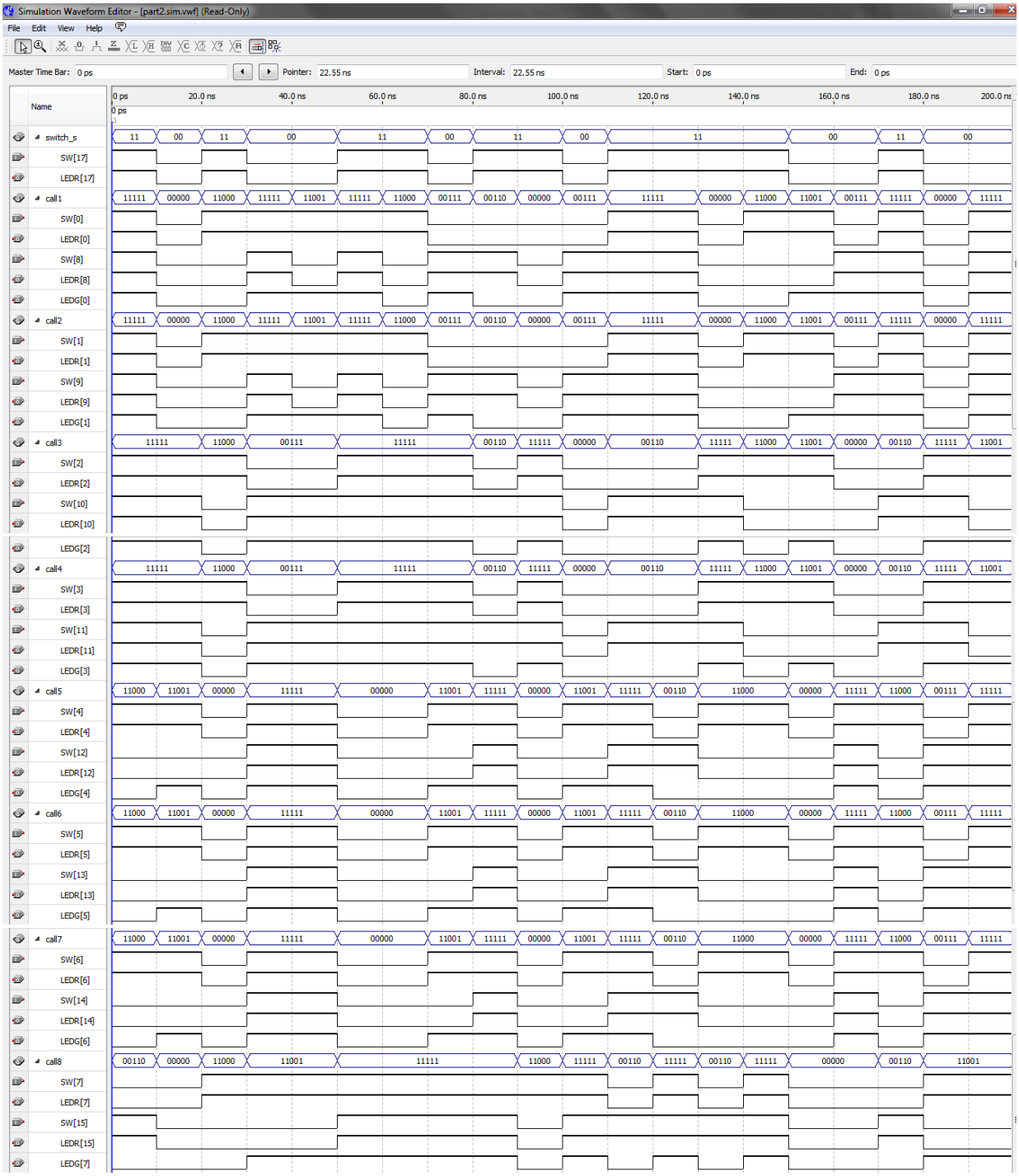
```
1   module part2(input [17:0]SW, output [17:0]LEDR, output [7:0]LEDG);
2
3      wire [7:0] X, Y, M;
4      wire s;
5
6      assign X = SW[7:0];
7      assign Y = SW[15:8];
8      assign s = SW[17];
9      assign LEDR[15:0] = SW[15:0];
10     assign LEDR[17] = SW[17];
11     assign LEDG[7:0] = M;
12
13     mux2to1 call1(X[0], Y[0], s, M[0]);
14     mux2to1 call2(X[1], Y[1], s, M[1]);
15     mux2to1 call3(X[2], Y[2], s, M[2]);
16     mux2to1 call4(X[3], Y[3], s, M[3]);
17     mux2to1 call5(X[4], Y[4], s, M[4]);
18     mux2to1 call6(X[5], Y[5], s, M[5]);
19     mux2to1 call7(X[6], Y[6], s, M[6]);
20     mux2to1 call8(X[7], Y[7], s, M[7]);
21
22  endmodule
23
24  module mux2to1(input x, y, s, output m);
25
26     assign m = (~s & (x | y)) | (s & (x & y));
27
28  endmodule
```


Simulation Waveform Editor - [part2.sim.vwf] (Read-Only)
File Edit View Help
Master Time Bar: 0 ps
Pointer: 22.55 ns
Interval: 22.55 ns
Start: 0 ps
End: 0 ps
Name
0 ps 20.0 ns 40.0 ns 60.0 ns 80.0 ns 100.0 ns 120.0 ns 140.0 ns 160.0 ns 180.0 ns 200.0 ns
switch_s
SW[17]
LEDR[17]
call1
SW[0]
LEDR[0]
SW[8]
LEDR[8]
LEDG[0]
call2
SW[1]
LEDR[1]
SW[9]
LEDR[9]
LEDG[1]
call3
SW[2]
LEDR[2]
SW[10]
LEDR[10]
LEDG[2]
call4
SW[3]
LEDR[3]
SW[11]
LEDR[11]
LEDG[3]
call5
SW[4]
LEDR[4]
SW[12]
LEDR[12]
LEDG[4]
call6
SW[5]
LEDR[5]
SW[13]
LEDR[13]
LEDG[5]
call7
SW[6]
LEDR[6]
SW[14]
LEDR[14]
LEDG[6]
call8
SW[7]
LEDR[7]
SW[15]
LEDR[15]
LEDG[7]