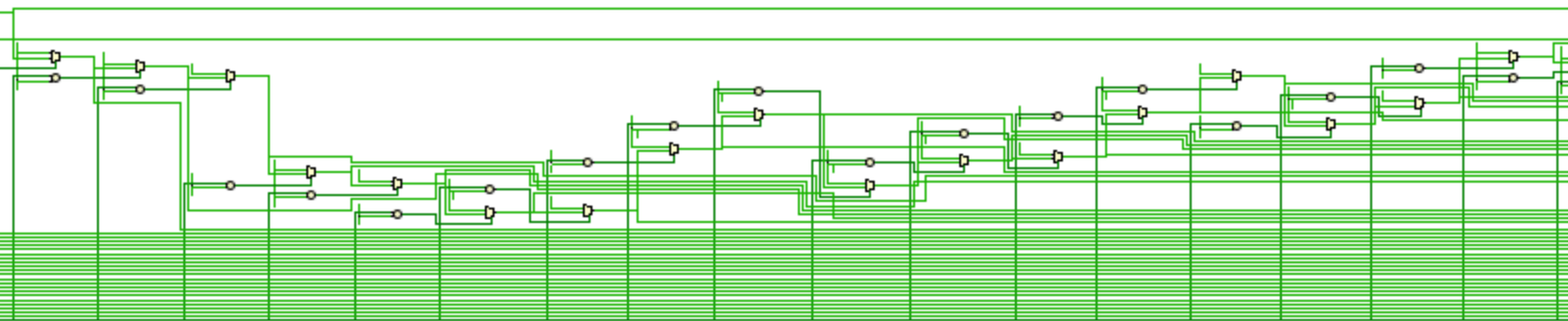


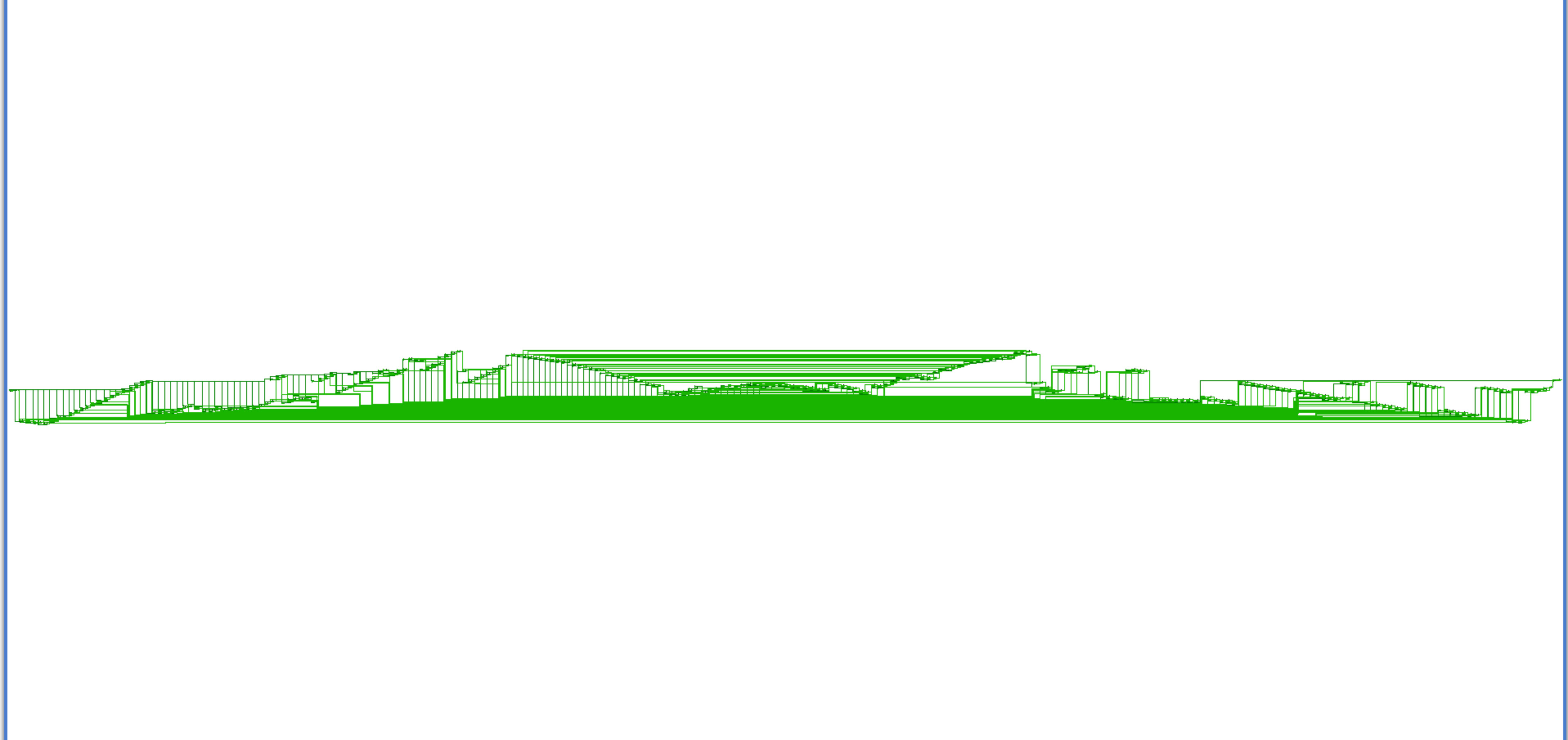
Tcl Console x Messages Log

Q [Run] [Stop] [Breakpoint] [Toggle Breakpoint] [Clear Breakpoint] [Run to Cursor] [Run to End] [Run to Start] [Run to Next Breakpoint] [Run to Previous Breakpoint] [Run to Next Event] [Run to Previous Event] [Run to Next Step] [Run to Previous Step] [Run to Next Line] [Run to Previous Line] [Run to Next Block] [Run to Previous Block] [Run to Next Function] [Run to Previous Function] [Run to Next Module] [Run to Previous Module] [Run to Next Package] [Run to Previous Package] [Run to Next Process] [Run to Previous Process] [Run to Next Thread] [Run to Previous Thread] [Run to Next Task] [Run to Previous Task] [Run to Next Window] [Run to Previous Window] [Run to Next Tab] [Run to Previous Tab] [Run to Next File] [Run to Previous File] [Run to Next Directory] [Run to Previous Directory] [Run to Next Project] [Run to Previous Project] [Run to Next Workspace] [Run to Previous Workspace] [Run to Next Environment] [Run to Previous Environment] [Run to Next Configuration] [Run to Previous Configuration] [Run to Next Profile] [Run to Previous Profile] [Run to Next Session] [Run to Previous Session] [Run to Next Instance] [Run to Previous Instance] [Run to Next Version] [Run to Previous Version] [Run to Next Release] [Run to Previous Release] [Run to Next Build] [Run to Previous Build] [Run to Next Commit] [Run to Previous Commit] [Run to Next Tag] [Run to Previous Tag] [Run to Next Branch] [Run to Previous Branch] [Run to Next Fork] [Run to Previous Fork] [Run to Next Repository] [Run to Previous Repository] [Run to Next Organization] [Run to Previous Organization] [Run to Next Account] [Run to Previous Account] [Run to Next User] [Run to Previous User] [Run to Next Role] [Run to Previous Role] [Run to Next Group] [Run to Previous Group] [Run to Next Team] [Run to Previous Team] [Run to Next Project] [Run to Previous Project] [Run to Next Workspace] [Run to Previous Workspace] [Run to Next Environment] [Run to Previous Environment] [Run to Next Configuration] [Run to Previous Configuration] [Run to Next Profile] [Run to Previous Profile] [Run to Next Session] [Run to Previous Session] [Run to Next Instance] [Run to Previous Instance] [Run to Next Version] [Run to Previous Version] [Run to Next Release] [Run to Previous Release] [Run to Next Build] [Run to Previous Build] [Run to Next Commit] [Run to Previous Commit] [Run to Next Tag] [Run to Previous Tag] [Run to Next Branch] [Run to Previous Branch] [Run to Next Fork] [Run to Previous Fork] [Run to Next Repository] [Run to Previous Repository] [Run to Next Organization] [Run to Previous Organization] [Run to Next Account] [Run to Previous Account] [Run to Next User] [Run to Previous User] [Run to Next Role] [Run to Previous Role] [Run to Next Group] [Run to Previous Group] [Run to Next Team] [Run to Previous Team]

```
# }
# run 1000ns
Time = 0, Number = 0, Is Prime = 0
Time = 10, Number = 1, Is Prime = 0
Time = 20, Number = 2, Is Prime = 1
Time = 30, Number = 3, Is Prime = 1
Time = 40, Number = 4, Is Prime = 0
Time = 50, Number = 17, Is Prime = 1
Time = 60, Number = 20, Is Prime = 0
Time = 70, Number = 23, Is Prime = 1
$finish called at time : 80 ns : File "/home/itzzinfinity/Cozy Drive/100daysofRTL/day_078/p
```

Type a Tcl command here





/home/itzzinfinity/Cozy Drive/100daysofRTL/day_078/project_1/project_1.srscs/sources_1/new/prime_checker.v



```
1  `timescale 1ns / 1ps
2  ///////////////////////////////////////////////////////////////////
3  // Engineer: Anjan Prasad
4  // Create Date: 12/07/2024 06:23:14 AM
5  // Module Name: prime_checker
6  ///////////////////////////////////////////////////////////////////
7
8  module prime_checker (
9      input [7:0] number,
10     output reg is_prime
11 );
12
13     integer i;
14     reg is_not_prime;
15
16     always @(*) begin
17         if (number < 2)
18             is_prime = 0;
19         else begin
20             is_not_prime = 0;
21             for (i = 2; i <= number / 2; i = i + 1) begin
22                 if (number % i == 0)
23                     is_not_prime = 1;
24             end
25             is_prime = ~is_not_prime;
26         end
27     end
28
29 endmodule
30
31
```

/home/itzzinfinity/Cozy Drive/100daysofRTL/day_078/project_1/project_1.srscs/sim_1/new/tb_prime_checker.v



```
1  `timescale 1ns / 1ps
2  ///////////////////////////////////////////////////////////////////
3  // Engineer: Anjan Prasad
4  // Create Date: 12/07/2024 06:24:45 AM
5  // Module Name: tb_prime_checker
6  ///////////////////////////////////////////////////////////////////
7
8  module tb_prime_checker;
9
10     reg [7:0] number;
11     wire is_prime;
12
13     prime_checker uut (
14         .number(number),
15         .is_prime(is_prime)
16     );
17
18     initial begin
19
20         $monitor("Time = %0d, Number = %d, Is Prime = %b", $time, number, is_prime);
21
22         // Test cases
23         number = 8'd0; #10; // 0 (Not Prime)
24         number = 8'd1; #10; // 1 (Not Prime)
25         number = 8'd2; #10; // 2 (Prime)
26         number = 8'd3; #10; // 3 (Prime)
27         number = 8'd4; #10; // 4 (Not Prime)
28         number = 8'd17; #10; // 17 (Prime)
29         number = 8'd20; #10; // 20 (Not Prime)
30         number = 8'd23; #10; // 23 (Prime)
31
32
33         $finish;
34     end
35
36 endmodule
37
38
```