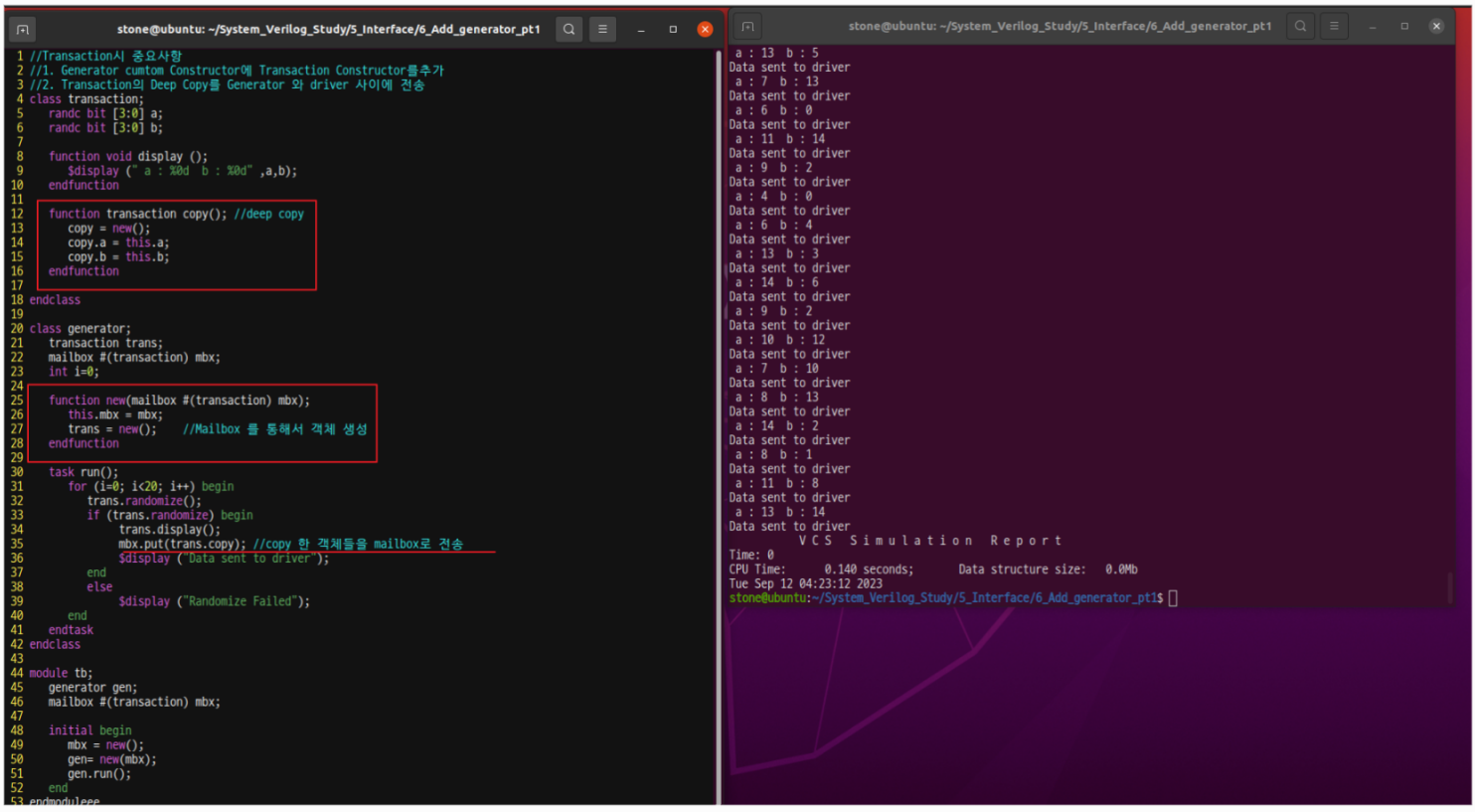
stone@ubuntu: ~/System_Verilog_Study/5_Interface/6_Add_generator_pt1
//Transaction시 중요사항
//1. Generator cumtom Constructor에 Transaction Constructor를추가
//2. Transaction의 Deep Copy를 Generator 와 driver 사이에 전송
class transaction;
randc bit [3:0] a;
randc bit [3:0] b;
function void display ();
$display (" a : %0d b : %0d" ,a,b);
endfunction
function transaction copy(); //deep copy
copy = new();
copy.a = this.a;
copy.b = this.b;
endfunction
endclass
class generator;
transaction trans;
mailbox #(transaction) mbx;
int i=0;
function new(mailbox #(transaction) mbx);
this.mbx = mbx;
trans = new(); //Mailbox 를 통해서 객체 생성
endfunction
task run();
for (i=0; i<20; i++) begin
trans.randomize();
if (trans.randomize) begin
trans.display();
mbx.put(trans.copy); //copy 한 객체들을 mailbox로 전송
$display ("Data sent to driver");
end
else
$display ("Randomize Failed");
end
endtask
endclass
module tb;
generator gen;
mailbox #(transaction) mbx;
initial begin
mbx = new();
gen= new(mbx);
gen.run();
end
endmodule
stone@ubuntu: ~/System_Verilog_Study/5_Interface/6_Add_generator_pt1
a : 13 b : 5
Data sent to driver
a : 7 b : 13
Data sent to driver
a : 6 b : 0
Data sent to driver
a : 11 b : 14
Data sent to driver
a : 9 b : 2
Data sent to driver
a : 4 b : 0
Data sent to driver
a : 6 b : 4
Data sent to driver
a : 13 b : 3
Data sent to driver
a : 14 b : 6
Data sent to driver
a : 9 b : 2
Data sent to driver
a : 10 b : 12
Data sent to driver
a : 7 b : 10
Data sent to driver
a : 8 b : 13
Data sent to driver
a : 14 b : 2
Data sent to driver
a : 8 b : 1
Data sent to driver
a : 11 b : 8
Data sent to driver
a : 13 b : 14
Data sent to driver
V C S Simulation Report
Time: 0
CPU Time: 0.140 seconds; Data structure size: 0.0Mb
Tue Sep 12 04:23:12 2023
stone@ubuntu:~/System_Verilog_Study/5_Interface/6_Add_generator_pt1$