

```

1 class generator;
2
3     randc bit [3:0] a, b; ////////////rand or randc
4     bit [3:0] y;
5
6     extern constraint data; //외부연결 제약조건 선언
7
8     extern function void display(); //외부연결 함수 선언
9
10 endclass
11
12     constraint generator :: data {
13         a inside {[0:3]};
14         b inside {[3:5]};
15     };
16
17     function void generator::display();
18         $display("Value of a : %0d and b : %0d",a,b);
19     endfunction
20
21 module tb;
22     generator g;
23     int i = 0;
24
25     initial begin
26         g = new();
27
28         for(i=0;i<15;i++) begin
29             assert(g.randomize()) else $display("Randomization Failed");
30             g.display();
31             #10;
32         end
33     end

```

```
4-linux-gnu -L/lib/x86_64-linux-gnu -Wl,--no-as-needed -rdynamic -Wl,-rpath=/usr/stone/software/vcs2018/vcs/0-2018.09-SP2/linux64/lib -L/usr/stone/software/vcs2018/vcs/0-2018.09-SP2/linux64/lib objs/ancQw_d.o _6074_archive_1.so SIM_l.o rmapats_mop.o rmapats.o rmar_n d.o rmar_llvm_0_1.o rmar_llvm_0_0.o -lzerosoft_rt_stubs -lvirsim -lerrorinf -lspnsmal loc -lvfs -lvcswc -lsimprofile -luclinate /usr/stone/software/vcs2018/vcs/0-2018.09-SP2/linux64/lib/vcs.tls.o -Wl,-whole-archive -lvcswc -Wl,-no-whole-archive _vcs_pli_stub.o /usr/stone/software/vcs2018/vcs/0-2018.09-SP2/linux64/lib/vcs_save_restore_new.o /usr/stone/software/verdi/verdi/Verdi_0-2018.09-SP2/share/PLI/VCS/LINUX64/pli.a -ldl -lc -lm -lpthread -ldl
./simv up to date
CPU time: .692 seconds to compile + .257 seconds to elab + .254 seconds to link
Verdi KDB elaboration done and the database successfully generated: 0 error(s), 0 warning(s)
stoneubuntu:~/System_Verilog_Udemy/3_Randomization/5_Extern_Function_Constraint$ ./simv
Chronologic VCS simulator 1991-2018
Contains Synopsis proprietary information.
Compiler version 0-2018.09-SP2_Full64; Runtime version 0-2018.09-SP2_Full64; Sep 4 01:08 2023
Value of a : 3 and b : 5
Value of a : 0 and b : 4
Value of a : 2 and b : 3
Value of a : 1 and b : 3
Value of a : 3 and b : 4
Value of a : 1 and b : 5
Value of a : 2 and b : 5
Value of a : 0 and b : 3
Value of a : 0 and b : 4
Value of a : 3 and b : 5
Value of a : 1 and b : 4
Value of a : 2 and b : 3
Value of a : 3 and b : 4
Value of a : 2 and b : 5
Value of a : 0 and b : 3
VCS Simulation Report
Time: 150
0.256 seconds
Data structure sizes: 0.0%
```