

1. user check

1.1 vc_check.tcl

```
set search_path "."
set link_library " "

analyze -format sverilog -vcs "chip.v"
elaborate chip

foreach_in_collection cell [get_cells] {
    set cell_name [get_object_name $cell]
    set ref_name [get_attribute -objects $cell -name ref_name];
    set orig_ref_name [regsub {_\d\d\d\d} $ref_name {}]
    puts "cell_name: $cell_name, ref_name: $ref_name, orig_ref_name:
$orig_ref_name"
}
```

1.2 file

chip.v

```
module chip(
    in, sel, clk, out
);

input  in, clk, sel;
output out;

reg    out;

core core_0 (
    .in      (in),
    .clk     (clk),
    .sel     (sel),
    .out     (out_0)
);

core core_1 (
    .in      (out_0),
    .clk     (clk),
    .sel     (sel),
    .out     (out_1)
);

core core_2 (
    .in      (in),
```

```
.clk    (clk),  
.rst_n  (1'b0),  
.sel    (sel),  
.out    (out_2)  
);  
core core_3 (  
    .in    (in),  
    .clk    (clk),  
    .rst2_n (1'b0),  
    .sel    (sel),  
    .out    (out_2)  
);  
  
always @(posedge clk) begin  
    out <= out_0 | out_1 | out_2;  
end  
  
endmodule
```