

```
1: library STD;
2: library IEEE;
3: use IEEE.std_logic_1164.all;
4:
5: entity and3 is
6: port(
7:     in1      : in  std_logic;
8:     in2      : in  std_logic;
9:     in3      : in  std_logic;
10:    out1      : out std_logic
11: );
12: end and3;
13:
14: architecture structural of and3 is
15:
16:     component and2
17:     port(
18:         in1      : in  std_logic;
19:         in2      : in  std_logic;
20:         out1     : out std_logic
21:     );
22:     end component;
23:
24:     signal o1 : std_logic;
25:     for a1 : and2 use entity work.and2(structural);
26:     for a2 : and2 use entity work.and2(structural);
27:
28:
29: begin
30:
31:     a1 : and2    port map(in1, in2, o1);
32:     a2 : and2    port map(o1, in3, out1);
33:
34: end structural;
```