

```
1  LIBRARY IEEE;
2  USE IEEE.STD_LOGIC_1164.ALL;
3
4  ENTITY GEN_RLEFT IS
5      PORT ( DATA1_IN : IN STD_LOGIC_VECTOR(31 DOWNT0 0);
6              RESULT   : OUT STD_LOGIC_VECTOR(31 DOWNT0 0));-- OVERFLOW
7  END GEN_RLEFT;
8
9  ARCHITECTURE BEHAVIORAL OF GEN_RLEFT IS
10
11      SIGNAL HOLDER : STD_LOGIC_VECTOR(32 DOWNT0 0) := "00000000000000000000000000000000";
12
13  BEGIN
14
15      GEN :
16          FOR N IN 31 DOWNT0 1 GENERATE
17              OTHER :
18                  ENTITY WORK.SLEFT(BEHAVIOR)
19                      PORT MAP(A => DATA1_IN(N), S => HOLDER(N));
20          END GENERATE GEN;
21      --
22      RESULT(31 DOWNT0 0) <= HOLDER(32 DOWNT0 1);
23  END BEHAVIORAL;
24
```