

Converter

Project - C:/altera_lite/15.1/task1

Name	Status	Type	Order	Modified
Mux_from_gates.v	✓	Verilog	0	01/01/2010 12:31:30 ...
Mux_4bits.v	✓	Verilog	1	01/01/2010 12:55:53 ...
Mux_2_32_CA.v	✓	Verilog	2	01/01/2010 03:35:32 ...
Adder.v	✓	Verilog	4	01/01/2010 04:56:01 ...
Comp_2_CA2.v	✓	Verilog	5	01/01/2010 05:13:15 ...
AOL_5_CA0.v	✓	Verilog	6	01/01/2010 05:24:15 ...
Conti_Assignment...	✓	Verilog	3	01/01/2010 11:19:33 ...
decoder.v	✓	Verilog	7	01/01/2010 11:58:32 ...
p2s.v	✓	Verilog	8	02/18/2019 08:52:58 ...

Library Project

Transcript

```
V$IM 90> run
force -freeze sim:/p2s/c1k 1 0
V$IM 92> run
V$IM 93>
```

Ln: 6 Col: 0 ** Project: task1 Now: 2 us Delta: 0 sim:/p2s

```
1 module p2s (d_in , d_out , load , shift , clk );
2 input [7:0] d_in ;
3 output reg d_out ;
4 input load , shift , clk ;
5 reg [7:0] flpflp ;
6 always @ ( posedge clk )
7 begin
8   if (load==shift)
9     d_out = 1'hx ;
10  else if (load)
11    flpflp [7:0] = d_in [7:0] ;
12  else if (shift) begin
13    d_out = flpflp [0] ;
14    flpflp [0] = flpflp [1] ;
15    flpflp [1] = flpflp [2] ;
16    flpflp [2] = flpflp [3] ;
17    flpflp [3] = flpflp [4] ;
18    flpflp [4] = flpflp [5] ;
19    flpflp [5] = flpflp [6] ;
20    flpflp [6] = flpflp [7] ;
21  end
22  else
23    d_out = d_out ;
24  end
25 end
26
27 endmodule
```

sim - Default

Wave - Default

Instance

- p2s
- #ALWAYS#8
- #v\$im_capacity#

Msgs

Signal	Value
/p2s/d_in	8'h1c
/p2s/d_out	1'h0
/p2s/load	1'h0
/p2s/shift	1'h1
/p2s/c1k	1'h1
/p2s/flpflp	8'h00
[7]	0
[6]	0
[5]	0
[4]	0
[3]	0
[2]	0
[1]	0
[0]	0

Now: 100 ns

Cursor 1: 755 ns

0 ns to 2512 ns

Project: task1 Now: 2 us Delta: 0 sim:/p2s

Transcript

```
V$IM 90> run
force -freeze sim:/p2s/c1k 1 0
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V$IM 93>
```

Ram

```

Ln#
1 module dual_ram (chip_sel1,chip_sel2,data_bus1,data_bus2,addr1,addr2,wr1,rd1,rd2,clk,out1,out2);
2 input [7:0] addr1,addr2; // input address port
3 input chip_sel1,chip_sel2,wr1,wr2,rd1,rd2,clk; //contro: signals
4 inout [7:0] data_bus1,data_bus2; //in-out data port
5
6 output reg [7:0] out1,out2; //output of ram
7 reg [7:0] ram1 [0:255]; //ram 1 declaration
8 reg [7:0] ram2 [0:255]; //ram 2 declaration
9
10 //code of ram 1
11 always @(posedge clk) begin
12 if (wr1&rd1) //to be sure there is read-write in the same time
13 out1[7:0]=8'hxx;
14 else if (chip_sel1&rd1&&(addr1!==(8'hxx)||(8'hzz))) //to be sure there is an input address while reading data
15 out1[7:0]=ram1[addr1];
16 else if (chip_sel1&wr1) //write data
17 ram1[addr1]=data_bus1[7:0];
18 else
19 out1=8'hxx; //to avoid any latch
20 end
21
22 assign data_bus1[7:0]= (chip_sel1&rd1&&!wr1)?out1[7:0]:8'hzz; //buffer to put output in the in-out port
23
24 //code of ram 2
25 always @(posedge clk) begin
26 if (wr2&rd2) //to be sure there is read-write in the same time
27 out2[7:0]=8'hxx;
28 else if (chip_sel2&rd2&&(addr2!==(8'hxx)||(8'hzz))) //to be sure there is an input address while reading data
29 out2[7:0]=ram2[addr2];
30 else if (chip_sel2&wr2) //write data
31 ram2[addr2]=data_bus2[7:0];
32 else
33 out2=8'hxx; //to avoid any latch
34 end
35
36 assign data_bus2[7:0]= (chip_sel2&rd2&&!wr2)?out2[7:0]:8'hzz; //buffer to put output in the in-out port
37
38 endmodule

```

Ln: 37 Col: 0

