Jutge.org

The Virtual Learning Environment for Computer Programming

4-input multiplexer

X45339_en

Design a 4-input multiplexer. It has four input signals (*in0-in3*) and two selection signals (*sel* [1:0]). The output must be assigned the input signal corresponding to the selection.

Specification

```
module mux4(in0, in1, in2, in3, sel, out);
input in0, in1, in2, in3;
input [1:0] sel;
output out;
```

Hint

Use 2-input multiplexers.

Input

- *in*0, *in*1, *in*2 and *in*3 are the inputs of the multiplexer.
- *sel* encodes the two selection signals.

Output

• *out* is the output of the multiplexer.

Problem information

Author: Jordi Cortadella

Generation: 2013-09-02 15:58:00

© *Jutge.org*, 2006–2013. http://www.jutge.org