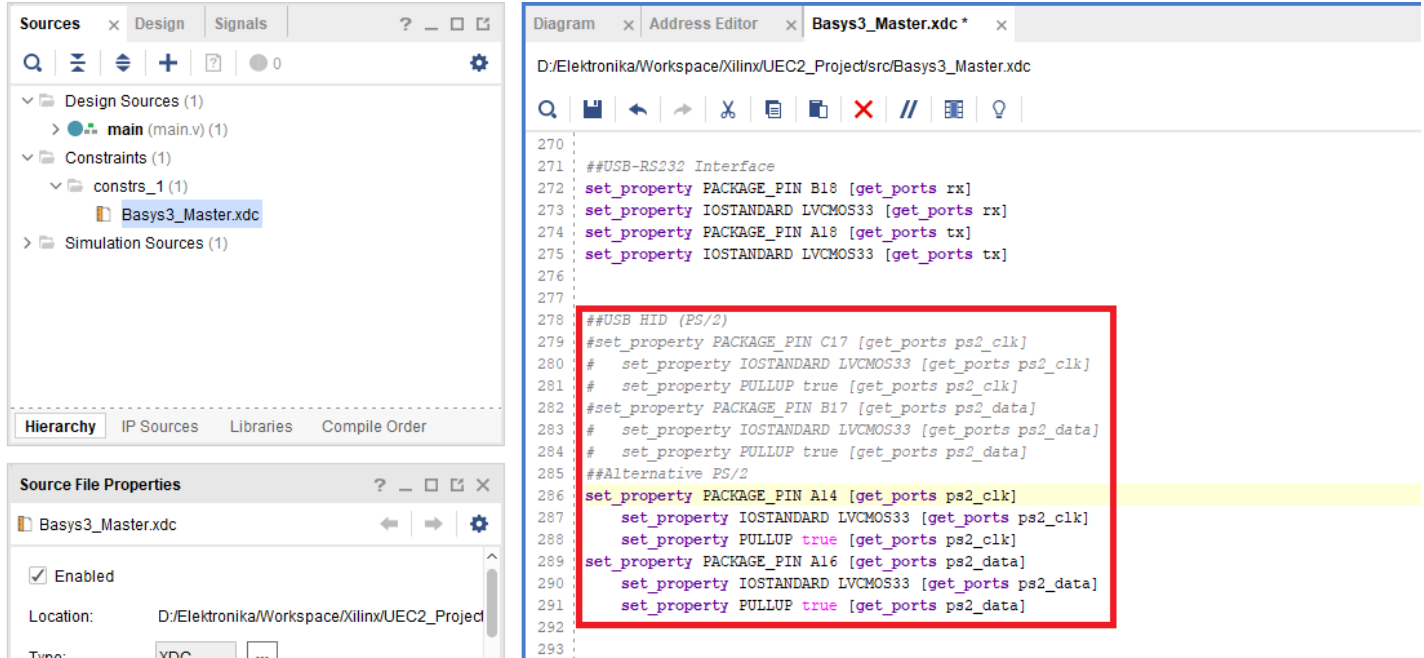


Connecting external PS2 keyboard

- Change in xdc file default PS2 pins, to alternative ones, and generate new bitstream



The screenshot shows the Xilinx IDE interface. On the left, the 'Sources' pane displays the project hierarchy: Design Sources (1) > main (main.v) (1), Constraints (1) > constrs_1 (1) > Basys3_Master.xdc, and Simulation Sources (1). The 'Source File Properties' pane for Basys3_Master.xdc shows it is 'Enabled' and located at 'D:\Elektronika\Workspace\Xilinx\UEC2_Project'. The main editor shows the 'Basys3_Master.xdc' file with the following code:

```
270
271 ##USB-RS232 Interface
272 set_property PACKAGE_PIN B18 [get_ports rx]
273 set_property IOSTANDARD LVCMOS33 [get_ports rx]
274 set_property PACKAGE_PIN A18 [get_ports tx]
275 set_property IOSTANDARD LVCMOS33 [get_ports tx]
276
277
278 ##USB HID (PS/2)
279 set_property PACKAGE_PIN C17 [get_ports ps2_clk]
280 # set_property IOSTANDARD LVCMOS33 [get_ports ps2_clk]
281 # set_property PULLUP true [get_ports ps2_clk]
282 set_property PACKAGE_PIN B17 [get_ports ps2_data]
283 # set_property IOSTANDARD LVCMOS33 [get_ports ps2_data]
284 # set_property PULLUP true [get_ports ps2_data]
285
286 ##Alternative PS/2
287 set_property PACKAGE_PIN A14 [get_ports ps2_clk]
288 set_property IOSTANDARD LVCMOS33 [get_ports ps2_clk]
289 set_property PULLUP true [get_ports ps2_clk]
290 set_property PACKAGE_PIN A16 [get_ports ps2_data]
291 set_property IOSTANDARD LVCMOS33 [get_ports ps2_data]
292 set_property PULLUP true [get_ports ps2_data]
293
```

- Connect keyboard according to diagram, Basys 3 USB 5V can be used to power keyboard as headers are only 3.3V

