

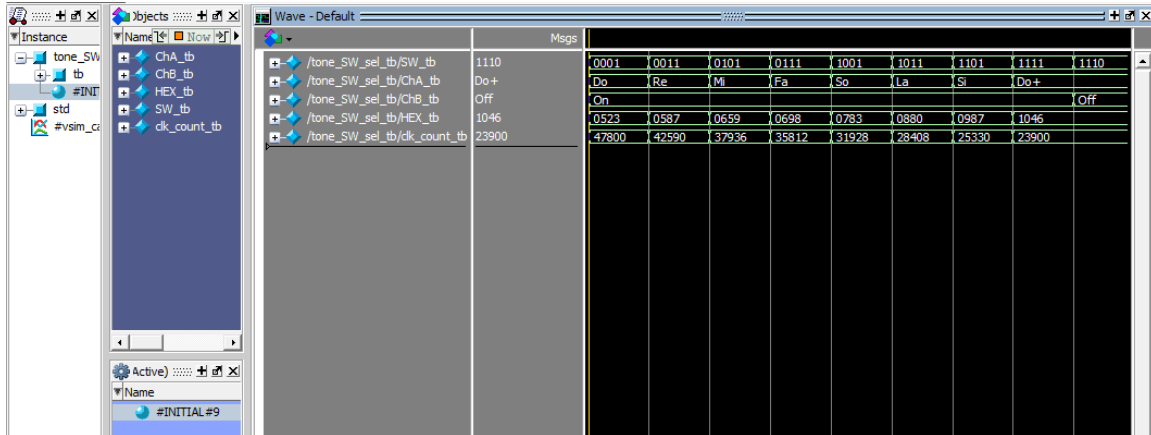
The SOF file named "Basic_Organ_Solution.sof" is located in directory "*"rtl/
Basic_Organ_Solution.sof"

State of the Lab: Finished. Everything is functioning as expected **except** the bonus part.

Simulations:

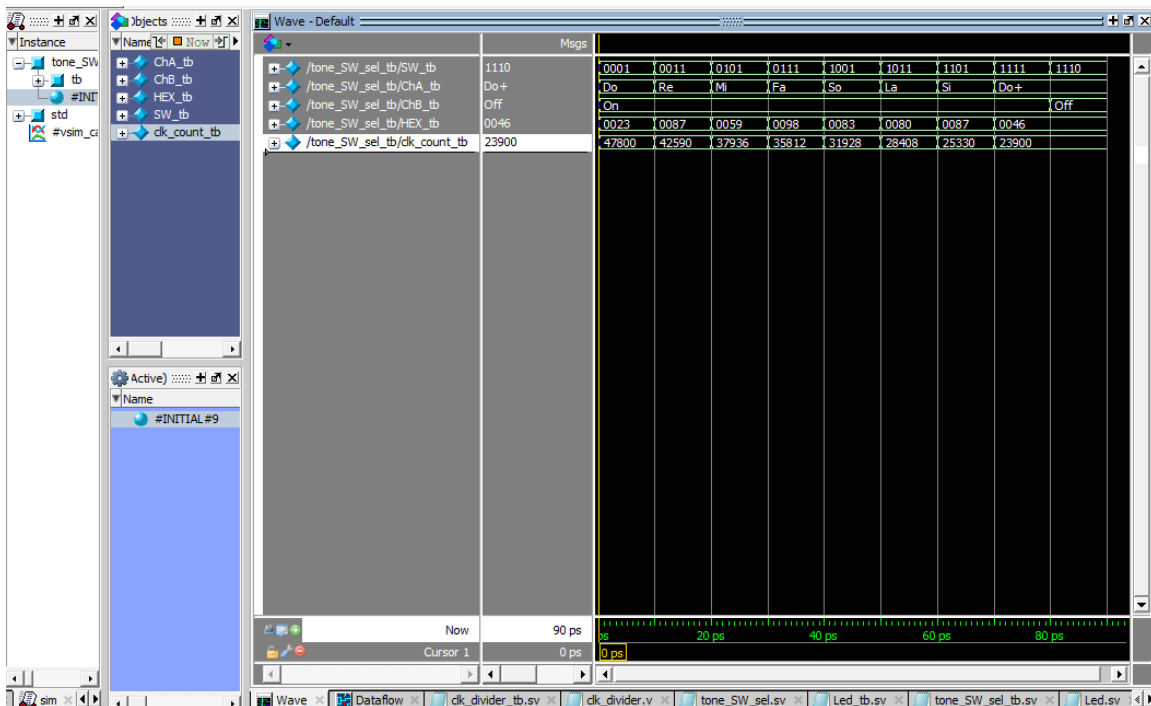
Operation & explanation of the simulation is written in the comment of every testbench code.

For LED controller:



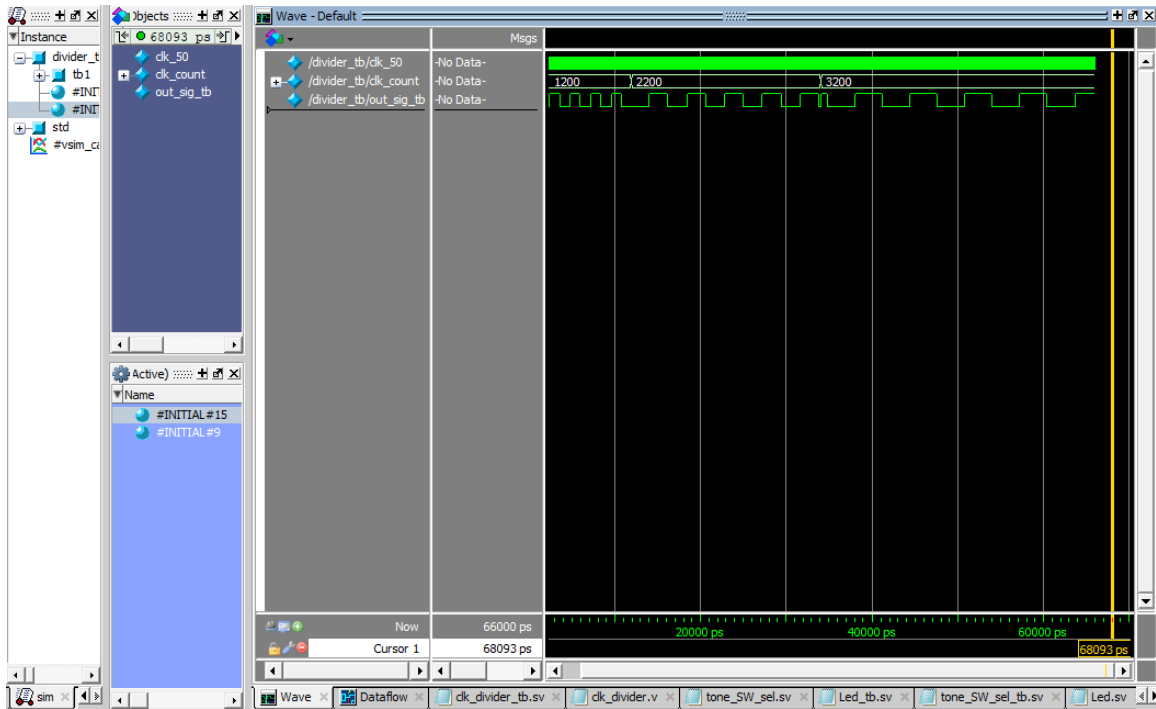
File "*"rtl/Led.v" is the Led controller, and "*"rtl/Led_tb.v" is its testbench

For tone/character selector:



File "*"rtl/tone_sel.v" corresponds to the tone organ module, and "*"rtl/tone_sel_tb.v" is its testbench. The actual code is implemented in the "Basic_Organ_Solution.v"

For clk_divider:



File `"*/rtl/clk_divider.v"` is the frequency divider, and `"*/rtl/clk_divider_tb.sv"` is its testbench

There are wave format file `"*/sim/Sel.do"`, `"*/sim/Led.do"` and `"*/sim/clk_divider.do"` respectively.