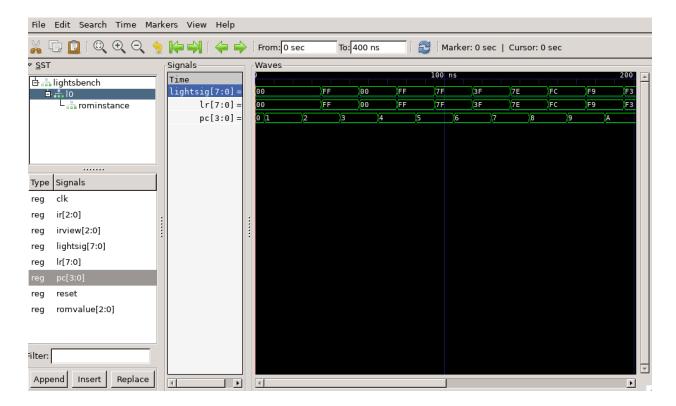
The goal of this project was to design a simple programmable light display using VHDL. The machine model for this project supports a small instruction set that controls the manipulation of an 8-bit light register (LR). This is done through a state machine with a limited set of instructions, enabling the creation of programmable sequences for light manipulation.

The system is made up of two main components which are:

- -lightrom.vhd A read-only memory (ROM) that stores a predefined program.
- -lights.vhd A state machine that reads instructions from lightrom and executes them on the light register (LR).

Gtkwave evidence is given below.



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