

Appendix C - User Guide: Digital Circuits Logic Simulator

Start: Navigate to the folder which contains the file `load_gui.py` using Terminal. Type the command `python load_gui.py` into the command line and press enter.

1. Menus: To load a new circuit definition file in the GUI click on **File > Open** to open a file explorer (Keyboard Shortcut: **Ctrl + O**). Toggle between 2D and 3D views by selecting options in **View** tab. Toggle between English and Romanian by selecting options in **Language** tab.

2. Running Simulations: Specify a number of simulation cycles. Click the **Run** button to run a fresh simulation, or click **Continue** to extend a prior simulation.

3. Configuring Devices: Select a configurable device (CLOCK or SWITCH) from the dropdown list. Clicking **Apply** will update the configuration variable of the selected device.

4. Selecting Monitored Outputs: Select any output(s) and click **Show** to make them monitors.

5. Removing Monitored Output: Select any output(s) and click **Remove** to zap them as monitors.

6. Activity Log: The activity log will show the following output: all error messages generated when an erroneous circuit definition file is loaded; messages indicating the result of, trying to open a file, running/continuing a simulation, configuring a device, creating a monitor, and zapping a monitor.

7. Toggle, Reset, Reload: Click these buttons to change between 2D and 3D views, reset a view's orientations to default, and to reload the currently loaded file.

2D View: Pan view by holding **Left Mouse Button** and dragging.

3D View: Pan view by holding **Right Mouse Button** and dragging. Rotate view by holding **Left Mouse Button** or **Middle Mouse Button** and dragging.

