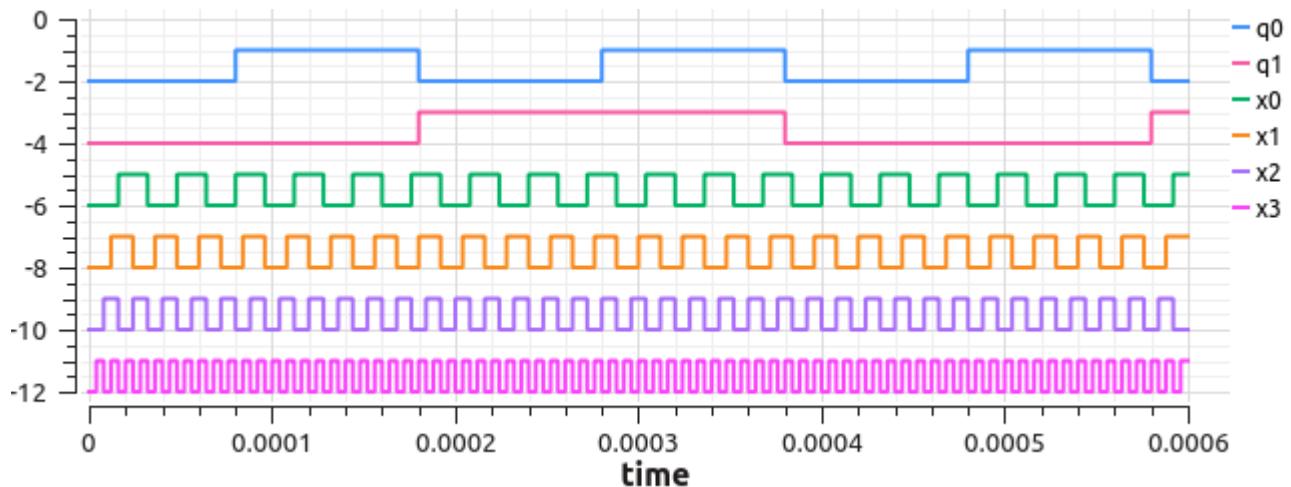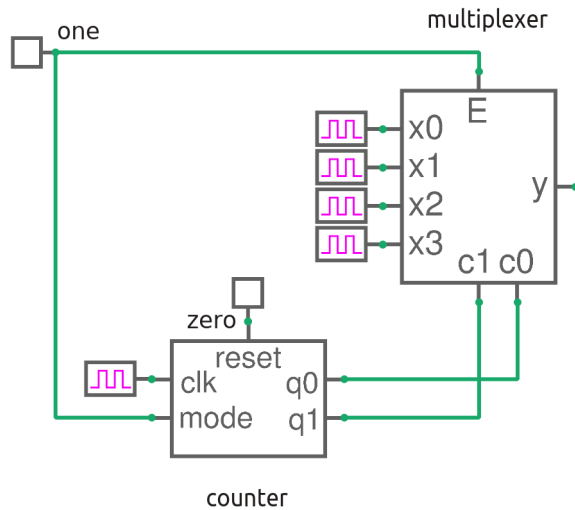`mux_test_1.sqproj`

The purpose of this simulation exercise is to understand the operation of a 4-to-1 multiplexer. A counter is used to change the Select bits in the sequence `00, 01, 10, 11, 00,⋯` (see figure). The inputs to the demultiplexer are square waves of different frequencies, as shown in the figure.

(Note that the y-axis values vary between `0` and `1` in reality; for convenience, an offset has been used for the waveforms in the above plot.)

Exercise Set

1. Plot (on paper) the expected output `y` versus time.

2. Compare your plot with simulation results.