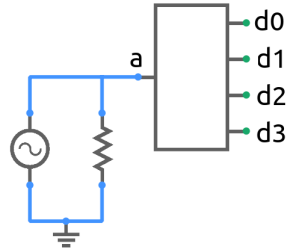


ee101_adc4.sqproj

Description



The purpose of this simulation is to illustrate the basic operation of an ADC.

Exercise Set

1. Plot the analog voltage and the ADC output bits (d0, d1, d2, d3) in two separate plots, and verify that the ADC output bits at any given time correspond to the analog voltage at that time.
2. Change the parameter `vref` of the ADC element from 1.2 V to 1.0 V and plot again. Explain your observations.
3. If the sinusoidal input voltage is replaced with a triangular voltage of frequency 1 kHz and amplitude of 1 V, how will the ADC change? Verify with simulation.