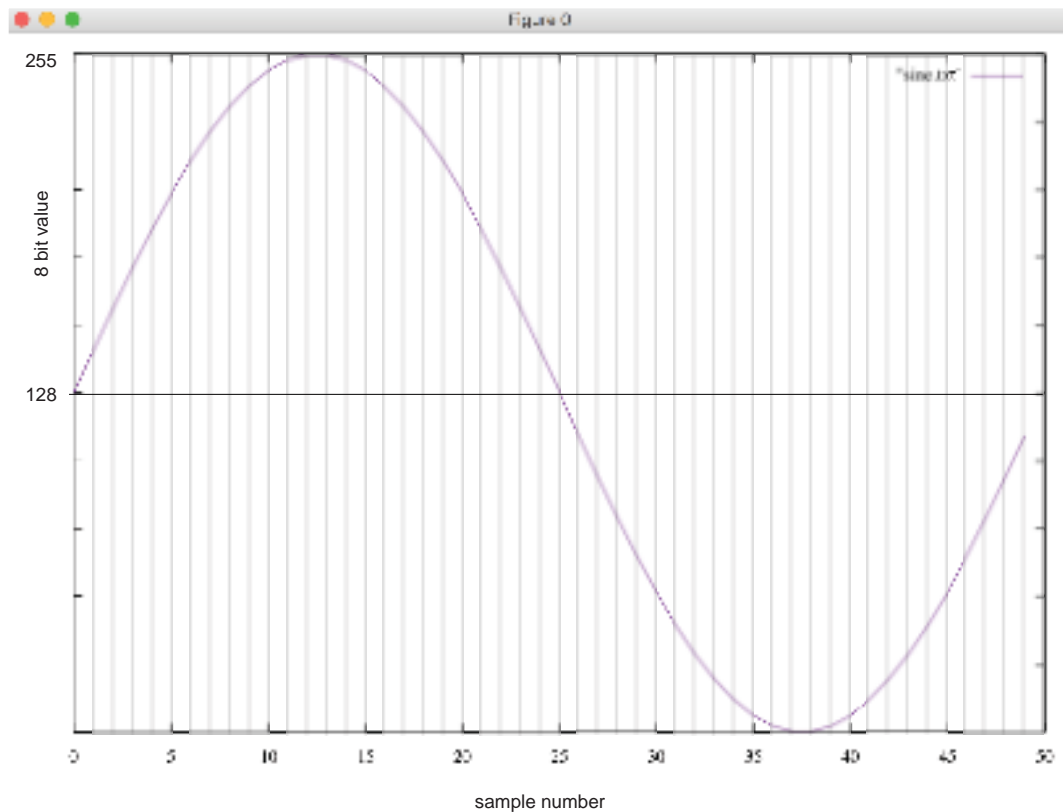


Clapping a sinewave

Simon Blackmore 2016



Program a computer to interpret audible impulses of a given tempo as 1s and silences as 0s.

Instruct it to convert each eight notes, byte or bar of information into a value between 0 and 255.

This value should be then rendered by the computer as an audio signal and looped until it receives another value.

Clap the score to the computer, after 50 bars or samples an 8-bit sine wave will emerge from the speakers.

Check the waveform with an oscilloscope.

♩ = 160 - 180

1 [1, 0, 0, 1, 0, 0, 0, 0] [1, 0, 0, 1, 1, 1, 1, 1] [1, 0, 1, 0, 1, 1, 1, 1] [1, 0, 1, 1, 1, 1, 0, 1]

5 [1, 1, 0, 0, 1, 0, 1, 1] [1, 1, 0, 1, 0, 1, 1, 1] [1, 1, 1, 0, 0, 0, 1, 0] [1, 1, 1, 0, 1, 0, 1, 1]

9 [1, 1, 1, 1, 0, 0, 1, 1] [1, 1, 1, 1, 1, 0, 0, 1] [1, 1, 1, 1, 1, 1, 0, 1] [1, 1, 1, 1, 1, 1, 1, 1]

13 [1, 1, 1, 1, 1, 1, 1, 1] [1, 1, 1, 1, 1, 1, 0, 1] [1, 1, 1, 1, 1, 0, 0, 1] [1, 1, 1, 1, 0, 0, 1, 1]

17 [1, 1, 1, 0, 1, 0, 1, 1] [1, 1, 1, 0, 0, 0, 1, 0] [1, 1, 0, 1, 0, 1, 1, 1] [1, 1, 0, 0, 1, 0, 1, 1]

21 [1, 0, 1, 1, 1, 1, 0, 1] [1, 0, 1, 0, 1, 1, 1, 1] [1, 0, 0, 1, 1, 1, 1, 1] [1, 0, 0, 1, 0, 0, 0, 0]

25 [1, 0, 0, 0, 0, 0, 0, 0] [0, 1, 1, 0, 1, 1, 1, 1] [0, 1, 1, 0, 0, 0, 0, 0] [0, 1, 0, 1, 0, 0, 0, 0]

29 [0, 1, 0, 0, 0, 0, 1, 0] [0, 0, 1, 1, 0, 1, 0, 0] [0, 0, 1, 0, 1, 0, 0, 0] [0, 0, 0, 1, 1, 1, 0, 1]

33 [0, 0, 0, 1, 0, 1, 0, 0] [0, 0, 0, 0, 1, 1, 0, 0] [0, 0, 0, 0, 0, 1, 1, 0] [0, 0, 0, 0, 0, 0, 1, 0]

37 [0, 0, 0, 0, 0, 0, 0, 0] [0, 0, 0, 0, 0, 0, 0, 0] [0, 0, 0, 0, 0, 0, 1, 0] [0, 0, 0, 0, 0, 1, 1, 0]

41 [0, 0, 0, 0, 1, 1, 0, 0] [0, 0, 0, 1, 0, 1, 0, 0] [0, 0, 0, 1, 1, 1, 0, 1] [0, 0, 1, 0, 1, 0, 0, 0]

45 [0, 0, 1, 1, 0, 1, 0, 0] [0, 1, 0, 0, 0, 0, 1, 0] [0, 1, 0, 1, 0, 0, 0, 0] [0, 1, 1, 0, 0, 0, 0, 0]

49 [0, 1, 1, 0, 1, 1, 1, 1] [1, 0, 0, 0, 0, 0, 0, 0]