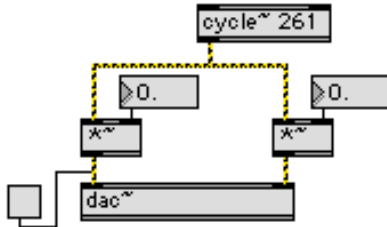


Electronic Media II
Spring 2005
Basic Panning in Max/MSP

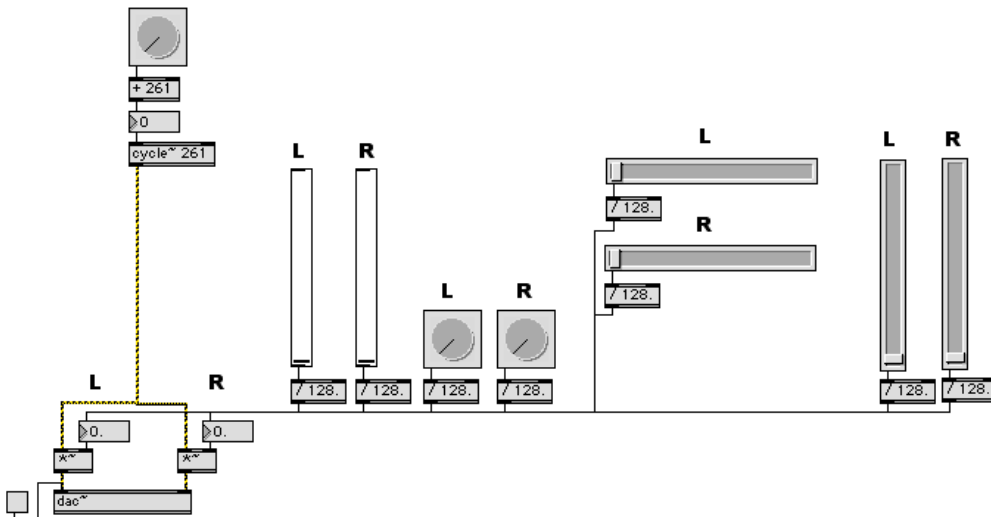
1. The patch below pans a 261 hz sine wave through the control of float number boxes patched to *~ signal multiplier objects.

Basic Panning



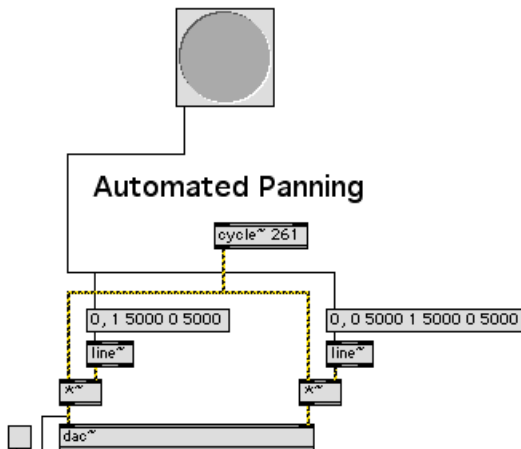
2. The patch below uses the following sets of pan control: float number boxes, sliders, dials, horizontal sliders vertical sliders, as shown below.

Manual Frequency Control and Panning



Note that the output of the these sliders and dial has been divided by 128 so that the float number box attached to the *~ signal multiplier object gives a range of 0 -0.99. Note also that the frequency of the cycle~ object is the range $261 - (128 * 261)$.

3. The patch below uses line~ patched to the *~ object box to automatie the pan process.



- a) Message Box A starts at amplitude 0, increases to amplitude 1 over 2000 milliseconds (ms), then decreases to 0 over 2000 ms.
- b) Message Box A starts at amplitude 0, increases to amplitude 0.2 over 2000 ms, then decreases to 0 over 2000 ms.
- c) Message Box C starts at amplitude 0, increases to amplitude 1 over 10000 ms, then decreases to 0 over 10000 ms.
- d) Message Box D starts at amplitude 0, increases to amplitude 1 over 30 ms, then decreases to 0 over 7000 ms.
- e) Message Box E starts at amplitude 0, increases to amplitude 1 over 7000 ms, then decreases to 0 over 30 ms.
- f) Message Box F starts at amplitude 0, increases to amplitude 1 over 20 ms, decreases to 0.3 over 200 ms, then decreases to 0 over 3000 ms.
- g) Message Box G starts at amplitude 0, increases to amplitude 1 over 20 ms, decreases to 0.3 over 200 ms, decreases to 0.01 over 3000 ms, increases to 1 over 2000 ms, then decreases to 0 over 30 ms.
- h) Message Box H starts at amplitude 0, increases to amplitude 1 over 1000 ms, stays at 1 for 20000 ms, then decreases to 0 over 30 ms.