

MAX/MSP By Example

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LESSON #3 MAKING AN ARPEGGIO

Let's say that instead of building a chord from a note, we want to arpeggiate it. In this case, we need to use some form of delay, such as **pipe**. In the following patch (figure 3.1), **bang** triggers two **makenotes**-- the first (the one on the right) should look familiar to you—it's the same as the patch in Lesson 2. The second line will play note 64 (E4), but send this through a **pipe** before it gets to **noteout**—in other words, the **pipe** delays the playing of the note by 400 ms.

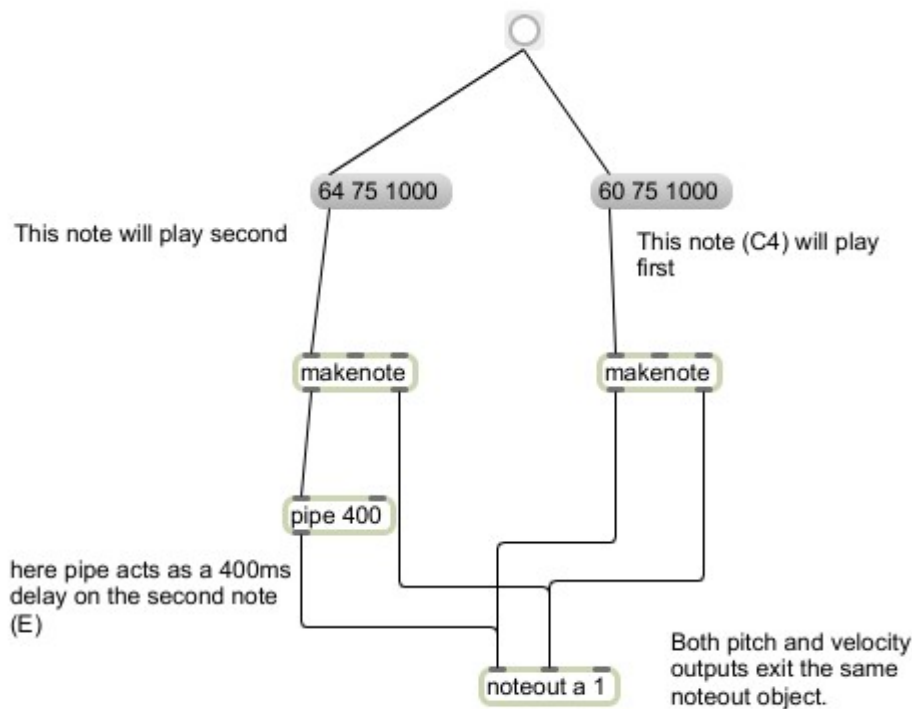


Figure 3.1 Basic delay of 400 ms using pipe.

Assignment: See if you can figure out how to add our third note (G4) with a further delay of 400 ms. Answer is at the end of the document.

Now let's build an arpeggiator that takes a **notein** message and arpeggiates that input note with a minor chord. We already know how to make a basic **notein**. So let's add a minor third with a **pipe**.

Note that you need to hold the fundamental down in order for the third to play-- this is because the noteoff data that gets sent from the MIDI controller cancels the message. To eliminate this, we want to strip the noteoff data from the incoming MIDI-- we use **stripnote** for this. Now, the note durations will hold longer, and we have a nice minor third... And then add the fifth (Figure 3.2).

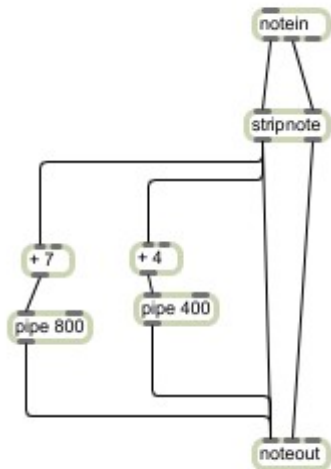


Figure 3.2 Using **stripnote** and **pipe** to arpeggiate a **notein** message.

ANSWER: Note that I've made the patchlines easier to read by using two methods: segmented patch chords (tick that option under "Options") and coloured patch chords (right-click the patch line and select "color").

