

MAX/MSP By Example

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LESSON #4 DECISION MAKING: SELECT OBJECT

Supposing we want to take our arpeggiator from the last lesson, and make it so that if the user plays a particular note they get a simple major arpeggio, and other notes they get a minor arpeggio.

What we want to do is insert some form of filter whereby when a particular key is pressed (let's use C4, note 60), we get a different response than if other notes are played.

We can use the **select** object to check if a number is 60. What this first patcher (Figure 4.1) says, is send all notes out EXCEPT note 60. Try to play any notes and see what happens. Then play note 60. I've thrown in a **number** object so you can see which note numbers you are playing.

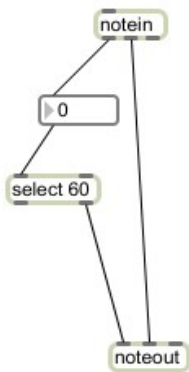


Figure 4.1 **Select object**

Objects which do not match the **select** (in this case, note 60) get sent as a bang from the output the right of the **select** object. Selected numbers output the left line.

So the first thing we need to do to make our major/minor patcher is to send out note 60 from the left if note 60 is played. I've added a **bang** output for the not-note60 just for reference for now (Figure 4.2).

figure out how to do that on your own (answer below).

We could also use a mathematical comparison whereby if the number is **equal to** (=) 60 the patchline heads in one direction, and if the number is **not equal to** (!=) 60 it heads in another direction. In figure 4.4, a **toggle** switch is turned on depending on whether the input note is 60 or not 60.

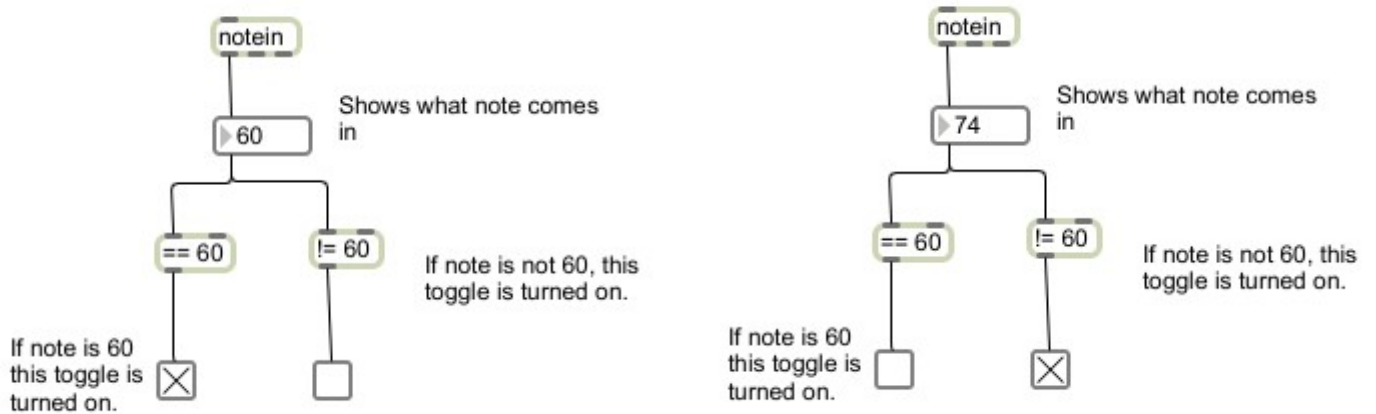


Figure 4.4 (twice) shows a **toggle** switch that turns on depending on what note is being played. The left figure shows what happens when note 60 is played, and the right shows what happens when another note is played.

Assignment: Substitute our arpeggiator for the toggle switch.

ANSWER:

