A Short Max tutorial

Here is a little tutorial that should get you more comfortable with the way Max works in preparation for the “official” assignment.

Once you have Max installed the first thing you should do is to go to the Options menu and select “segmented patch cords”

Now open a new Max patcher (file menu)

Double click anywhere in the window to bring up the object palette. Select the Kslider object (it may be in a different place on your palette – it’s the little piano icon.

Click on the keyboard that appears in your patcher and drag it up to the top of the screen. Double-click again to get the palette and select a number object.

drag the number box up below the keyboard. Connect the keyboard output to input of the number box with a patch cord. Do this by clicking in the output box of the keyboard ad starting to drag.

Now run your patch by clicking on the lock icon in the bottom left of the patcher window. Click in the keyboard and drag the mouse up and down. Watch what happens to the numbers in the number box. They should go up and down as you move up and down the keyboard.

Now use the palette to create a generic object (it’s the object in the top left of the palette. When the object appears in the patcher type the word “makenote” into it (it’ll attempt to autocomplete for you as you type) after the name type a space then 80 then another space and then 500

While holding down the option key (alt on PC?) drag a copy off the makenote object (or you can create another from the palette) type “noteout” into it.
Connect the pitch output of makenote (left output) to the pitch input of the noteout object and the velocity output (right) of makenote to the middle input of the noteout object. You’ll need to use a segmented patch cord for this. Click on makenote’s output to get a patchcord started and then click each time you want a segment. Connect your final segment to the noteout middle input.

Group select the makenote and noteout objects by click-dragging to make a marquee around both objects. Drag them up under the keyboard and connect the output of the number box to the pitch input of Makenote.

Click the lock icon to put Max into run mode and drag your mouse up and down on the keyboard. You should hear a piano sound coming out of your speaker! You can also click in the number box and while holding the mouse down drag up and down. This should produce lots of sounds!

Open the palette again (double-click in an empty space in the window), create another generic object and type “metro” into it. Follow this with the number 500 (space after the word metro).

Bring up the object palette again and select a toggle object.

Connect the toggle to the left input of metro and the output of metro to the input of the keyboard:
Put Max in locked mode and click on the toggle (an X should appear) You should start hearing a repeated note coming out of the keyboard. As you click on other keys on the keyboard other notes should start playing. The metronome is now “playing” the keyboard at the rate you’ve typed in and the output of the keyboard is feeding the number box which is in turn feeding notes to makenote. If you unlock the patcher and change the number after metro, the notes will play faster or slower (don’t make the number less than about 100 or you could crash Max) In order to stop the system click on the toggle again (the X will disappear and the metro will stop ticking.

Unlock the patcher again (you need to do this every time you want to add to or modify your patch)

Bring up the palette again and select a comment object. Place it somewhere and type “this is my first patcher!” in it. Drag it up above your little system. (if necessary you can group select all the objects in your system and drag them down to make room for your title.

Now let’s look at another way of stopping our system. Open the palette and select a message object.

When it’s in the patcher window type “stop” (all lower case) into the box and drag it up so it’s below and slightly to the left of your keyboard. Connect it to the left metro input. Now run your system. Clicking in the toggle box will still start and stop it, but clicking on the stop message will also stop it because metro understands the word “stop”

Finally, create a “bang” object.

Place it to the right of the toggle object and connect it to the left input of metro. Run your program. When you click on the bang object the metro should start ticking/playing notes (many objects accept a “bang” as a generic way of telling them to “do what you do”) Now you have two ways of starting and stopping your metro!

That’s it – your first Max program! I hope you’ve enjoyed your introductory tour of Max. See you soon!