

How to do stuff with OSCulator

What is it?

OSCulator is a software bridge that peaks OSC and lets you connect stuff to other stuff.

How do I get it ?

OSCulator is on computers in the RCC.

It can be downloaded from:

<http://www.osculator.net>

What do I do with it?

OSCulator allows you to route messages from one platform/machine to another.

It translates to MIDI, talks to WiiMotes, iphones/ipads running osc enabled software and android devices.

How do I do that?

To figure that out, we are going to see how to pass a message from Processing to OSCulator. And then from OSCulator Processing.

We need a few things:

- OSCulator
- Some sample processing code.

The system will look like this (all on one machine):

sendToOSCulator.pde

recieveFromOSCulator.pde



direct message



OSCulator

Start up PROCESSING send sketch:

OPEN and RUN processing sketch:
sendToOSCulator.pde

NOTE:

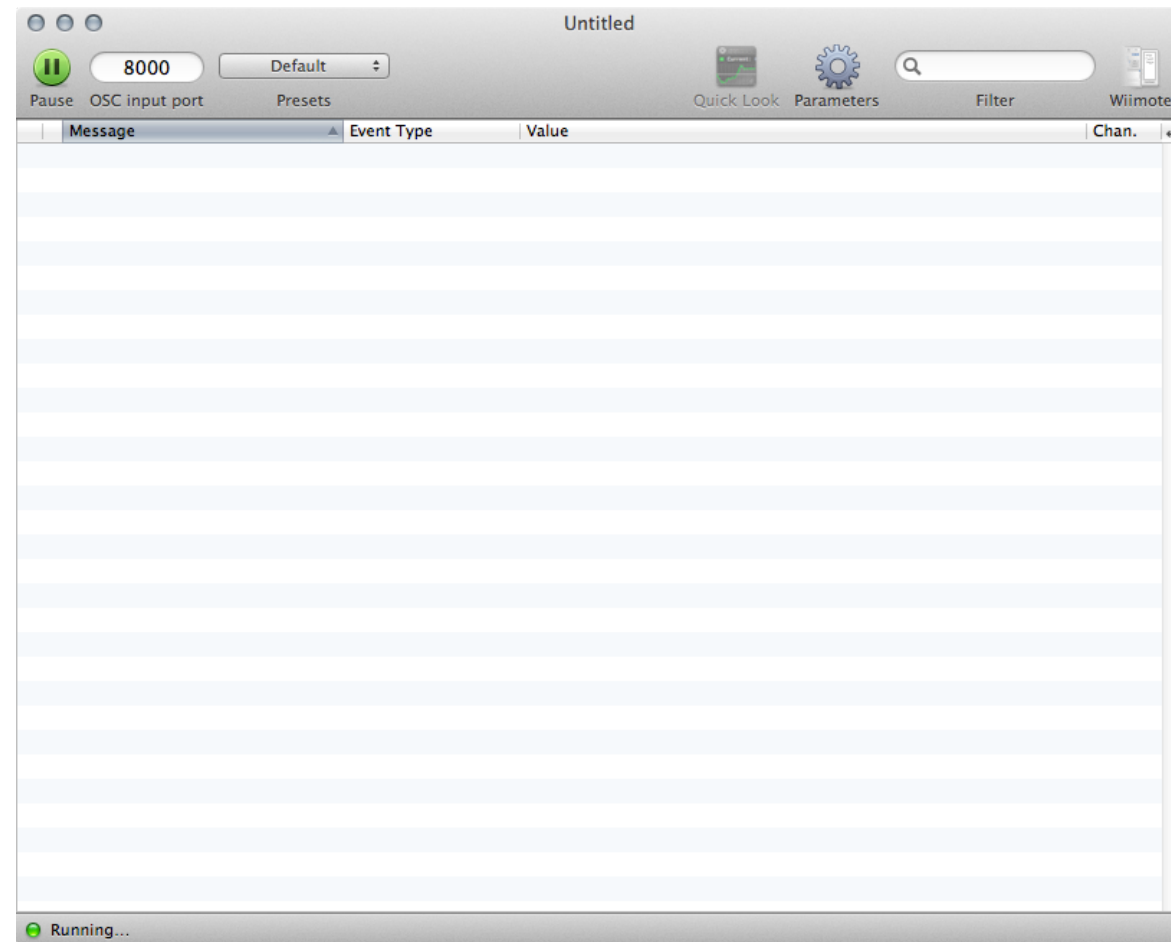
this sketch talks to (remotePort) = 13000

this sketch listens to (myPort) = 12000

Start up OSCulator:

I) OPEN OSCulator and open a NEW window

It will look like this.



Match the IP and PORT

Set the remoteLocation in the send sketch to match OSCulator.

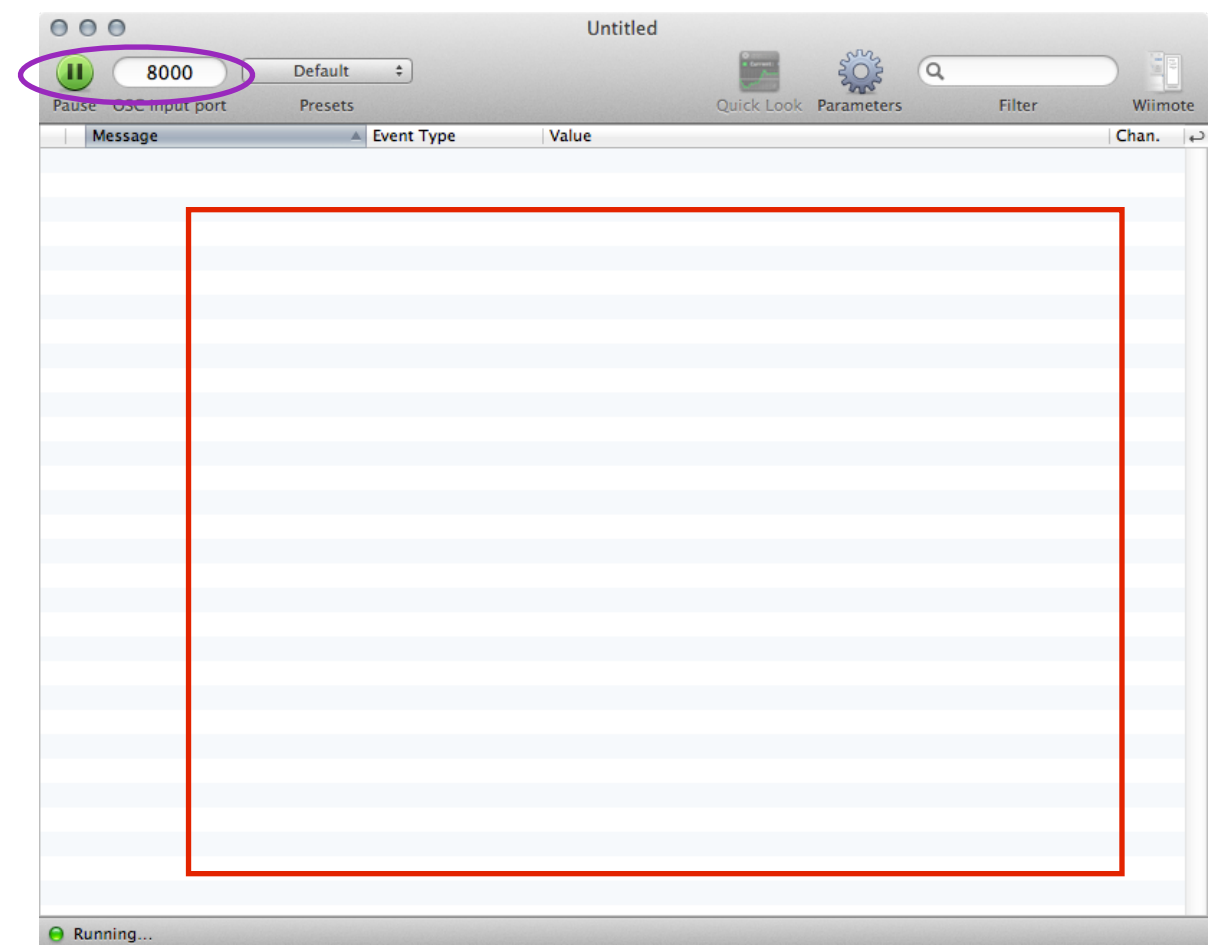
You need to set IP and PORT in Processing (look in setup()) to match OSCULATOR IP and PORT.

The sketch uses 13000



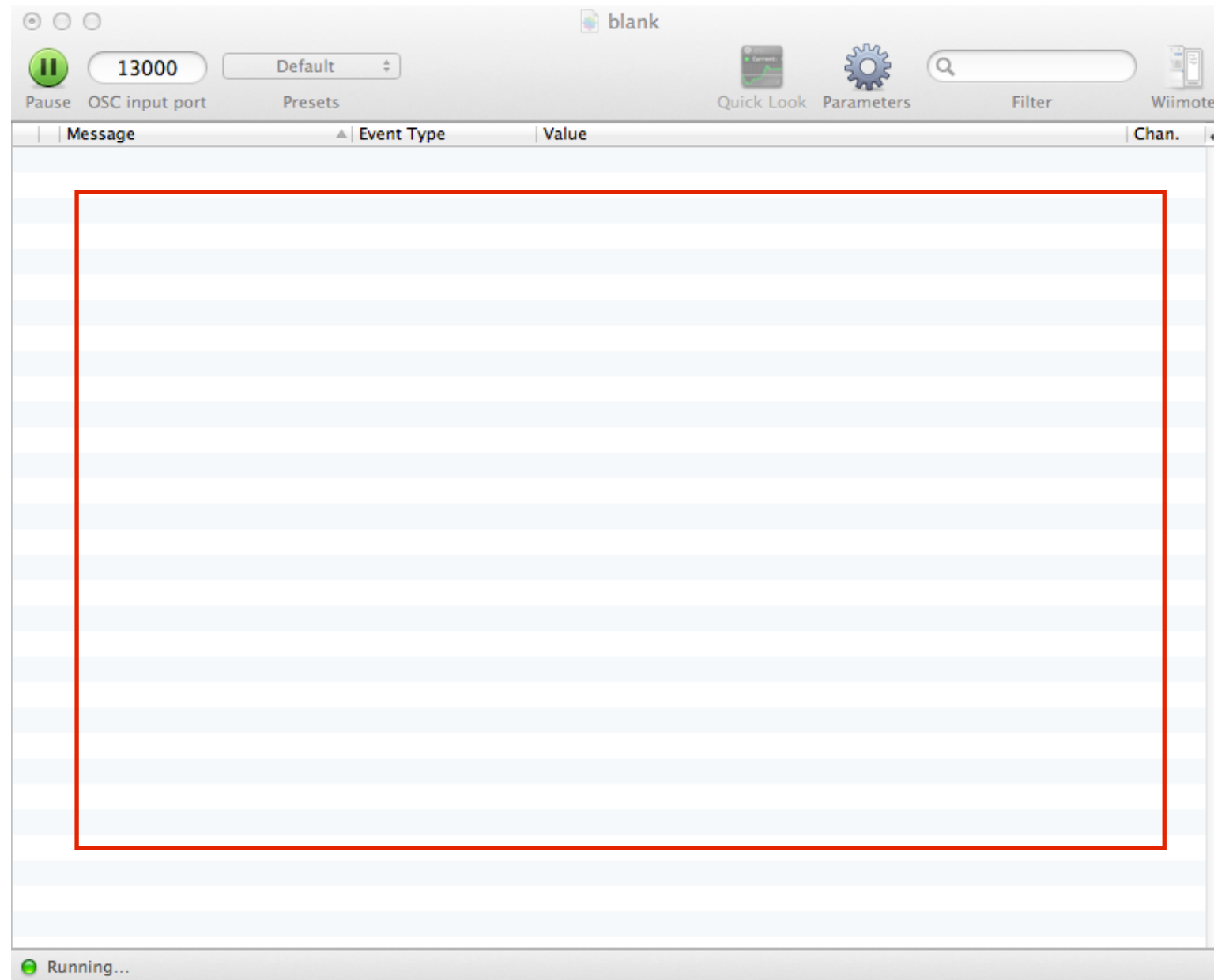
Set the OSC input PORT (oval) to the value of your PROCESSING remotePort.

Change default value in oval to 13000.



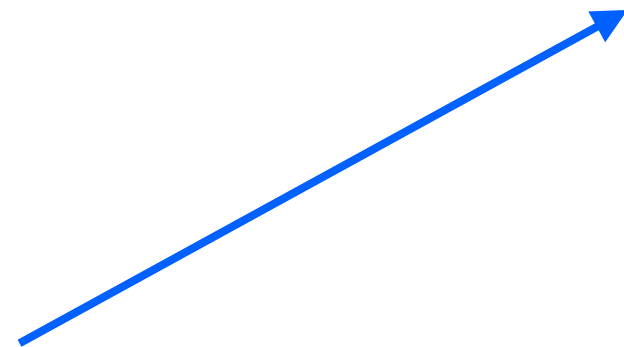
Activate the OSCulator window

Toggle the Pause/Play button (restart listening on new port) then click in the main OSCulator window (rectangle).



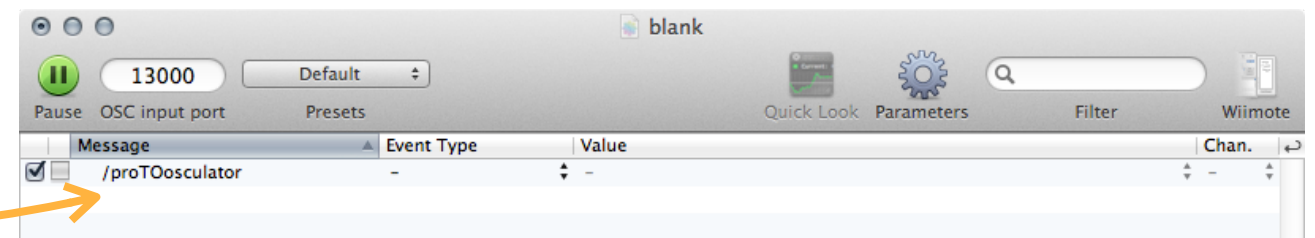
SEND message to OSCulator

Run your processing sketch -- and once started click the sketch window (it starts black).



... 2 things happen

color change



new address pattern in OSCulator

note: it matches the processing sketch -- look in mousePressed.

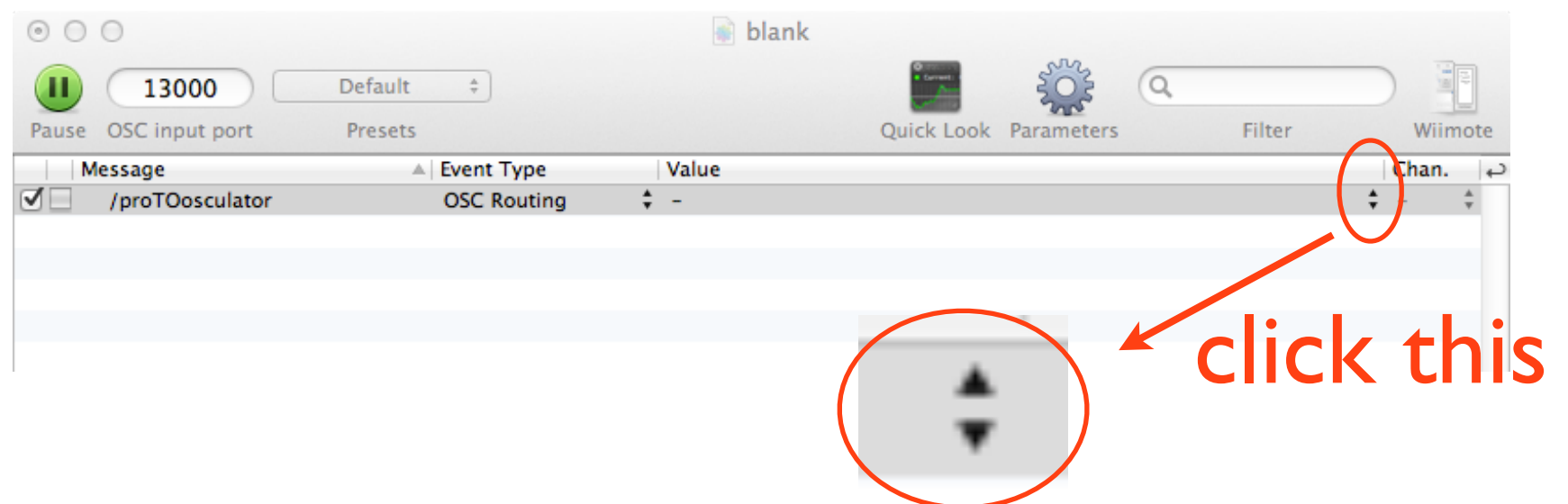
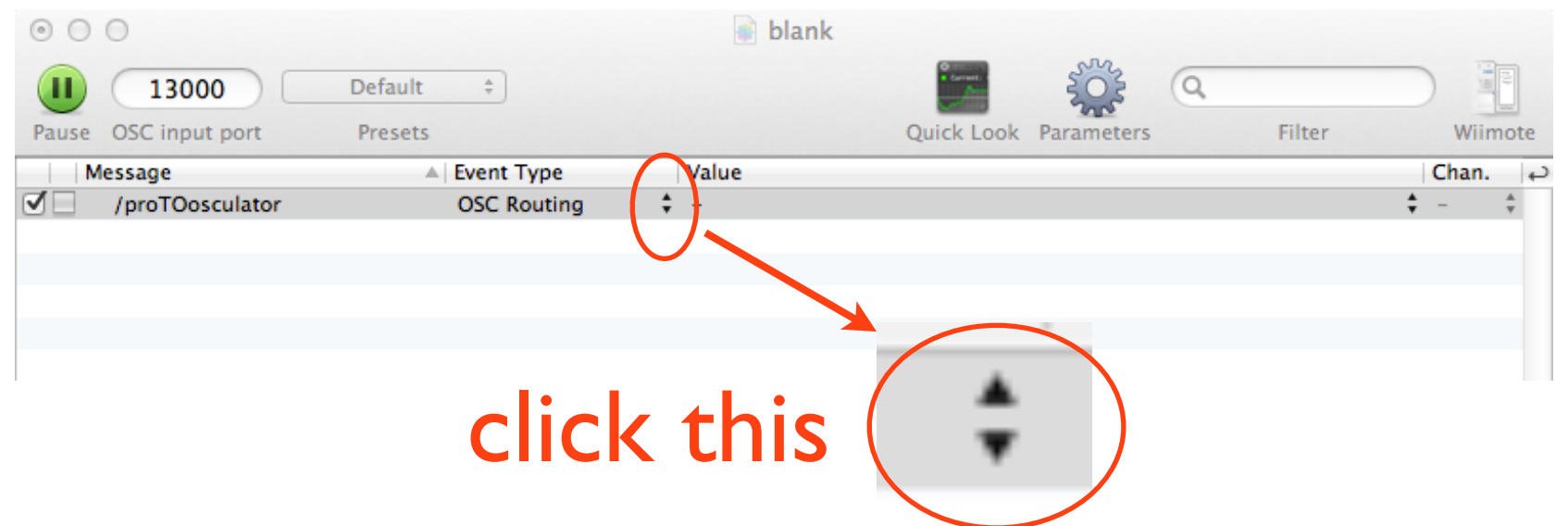
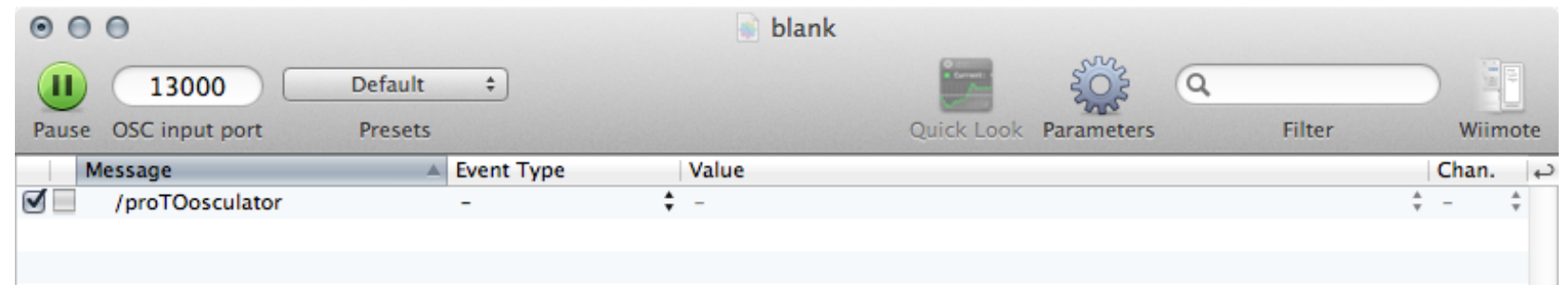
CONFIGURE OSCulator routing

We want OSCulator to send messages to another processing sketch -- so we need to point OSCulator at that sketch .

From drop down menu under EVENT TYPE, select: OSC Routing

This means, if you get a /proTOoscillator message, route it elsewhere

Now set where it goes under VALUE -- click the value selector and pick NEW from menu.



Tell OSCulator who you will talk to:

REMEMBER: We want to talk to another PROCESSING sketch on the same machine.
So lets point OSCulator to that sketch.

Clicking **NEW** under VALUE opens this window.

We need to enter the IP and PORT of the receiving sketch.

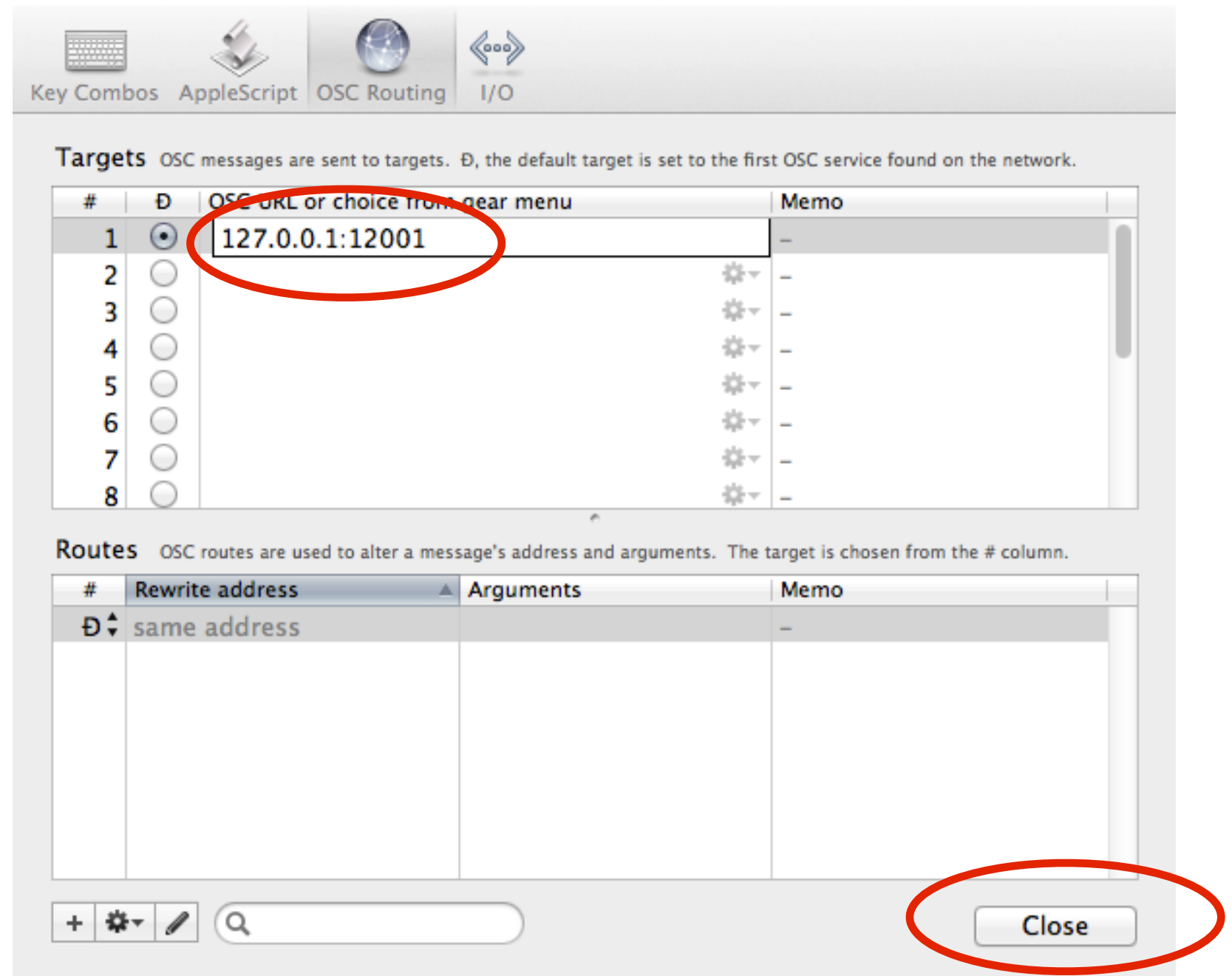
Note the format:

IP : PORT -- 127.0.0.1:12001

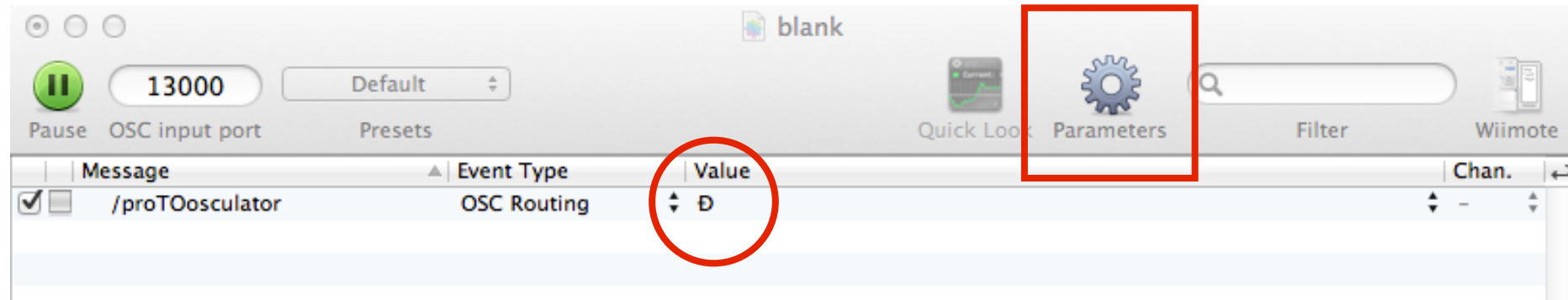
Separated with a colon

OSCulator will add some details (osc.udp)

Click done.



OSCulator now looks like this:



The symbol in the circle means default.

I find that confusing -- why not show my value?

To confirm your setting (or change it later) -- click parameters (rectangle) and double check.

Last step... almost ready.

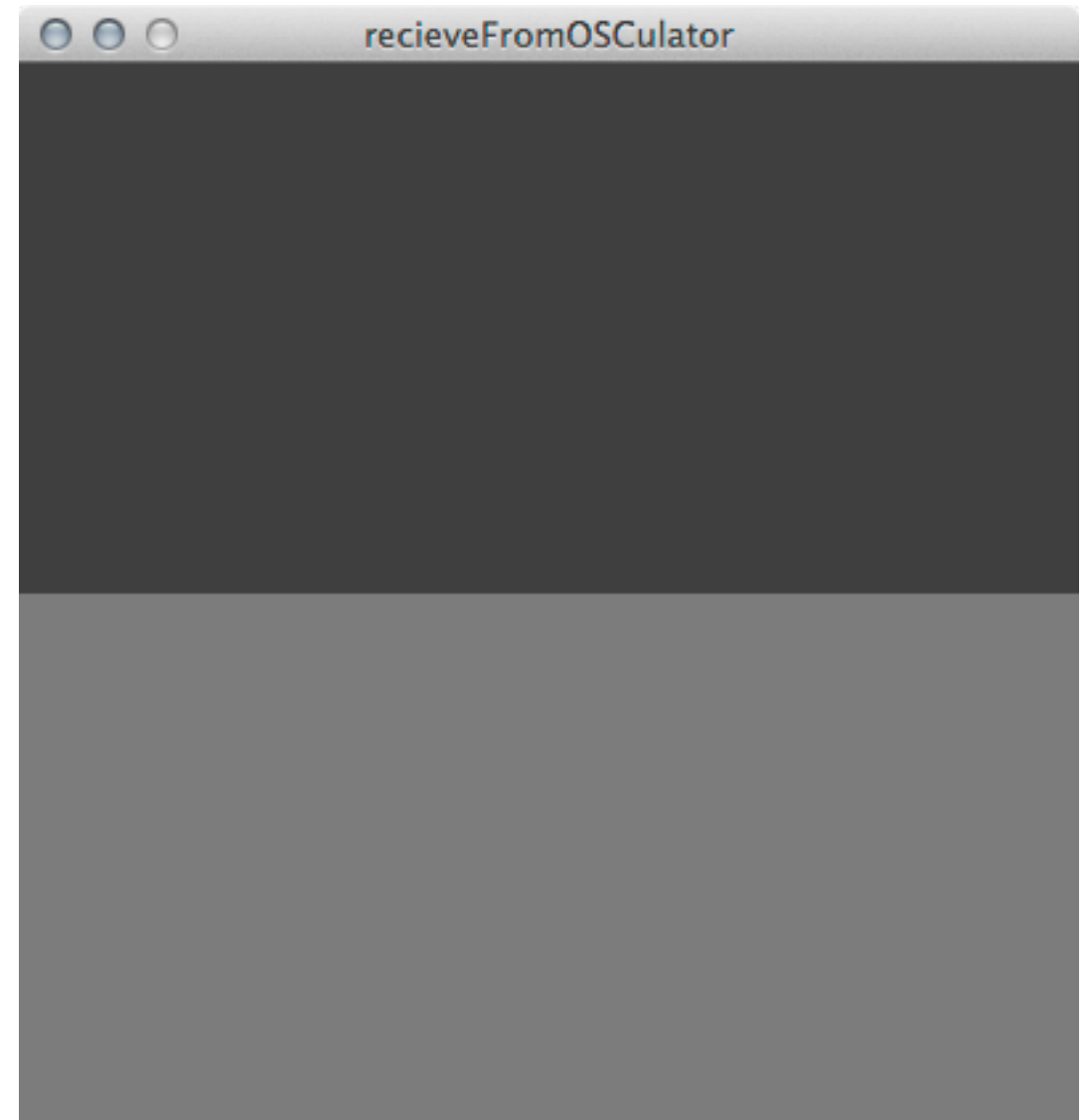
Match the IP and PORT of the receive sketch

We just set OSCulator to route messages to a device at 127.0.0.1:12001.

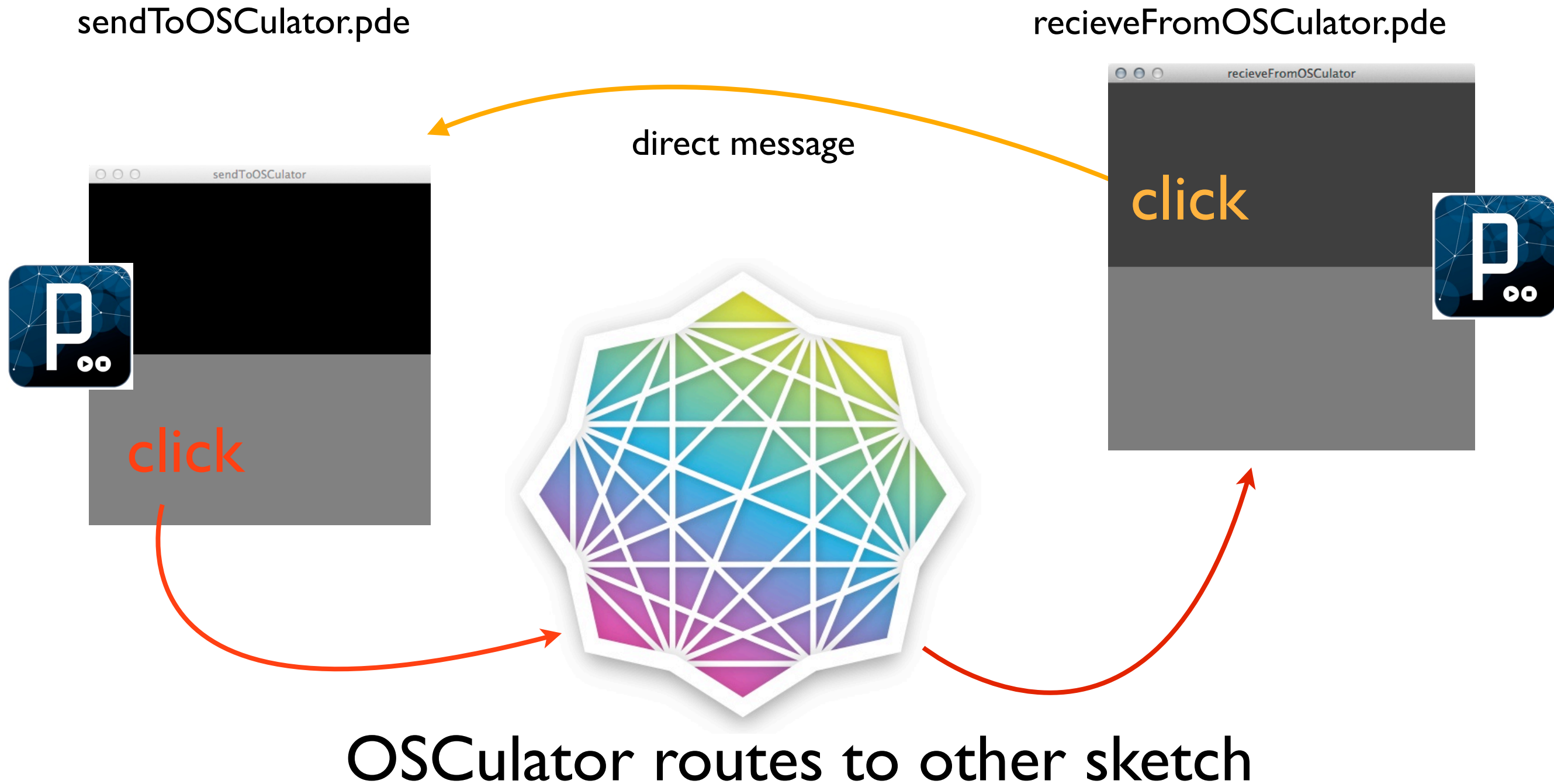
So we need to set receive sketch listeningPort to 12001.



Run receiveFromOSCulator

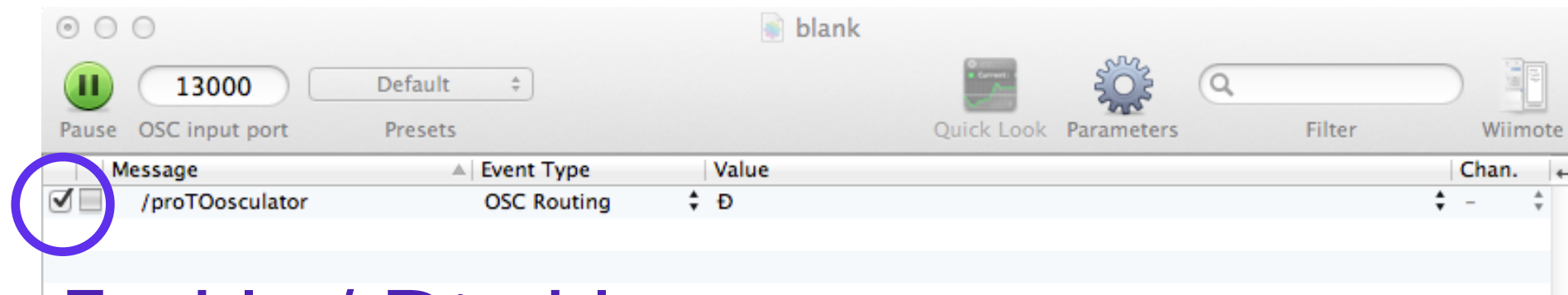


The system will look like this:

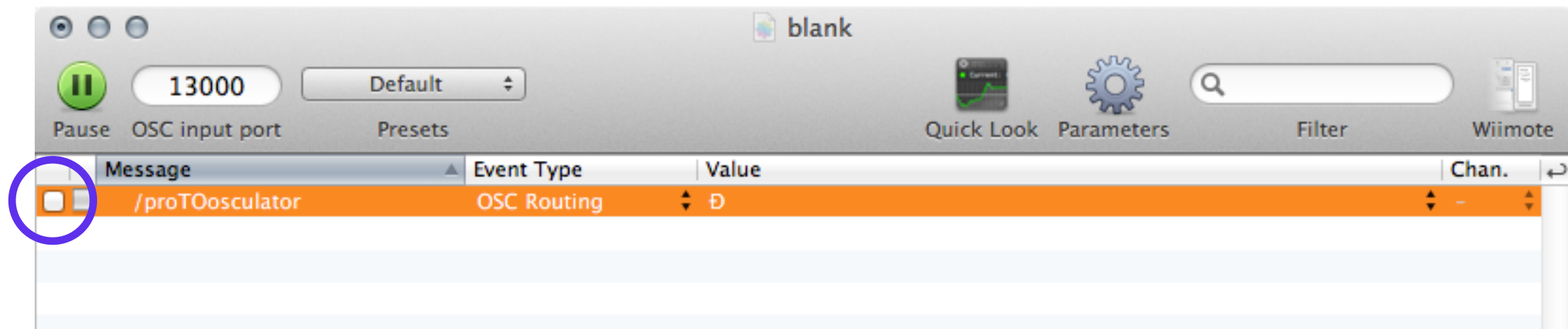


Prove to yourself that OSCulator is routing:

Disable the routing by clicking the check mark to the left of the message



Enable / Disable



Click on sendToOSCulator -- what happens in receive?

Variations:

Can you connect PROCESSING to OSCulator on another machine?

Can you get OSCulator to connect to PROCESSING on different machine?

One more thing -- lets talk to Garage Band.

One more thing -- lets talk to Garage Band.

Garage band speaks MIDI and so does OSCulator.

Garage band has some weirdness (so there will be glitches) and MIDI is beyond this course -- but if you like sound this could be a great site of a final project.

OSCulator also talks to Live.

The system will look like this (all on one machine):

We could use the PROCESSING sketch we have been using -- but some added flexibility will come from using one that captures keystrokes.

OPEN: [oscP5Notes.pde](#)



OPEN GARAGE BAND



Match the IP and PORT

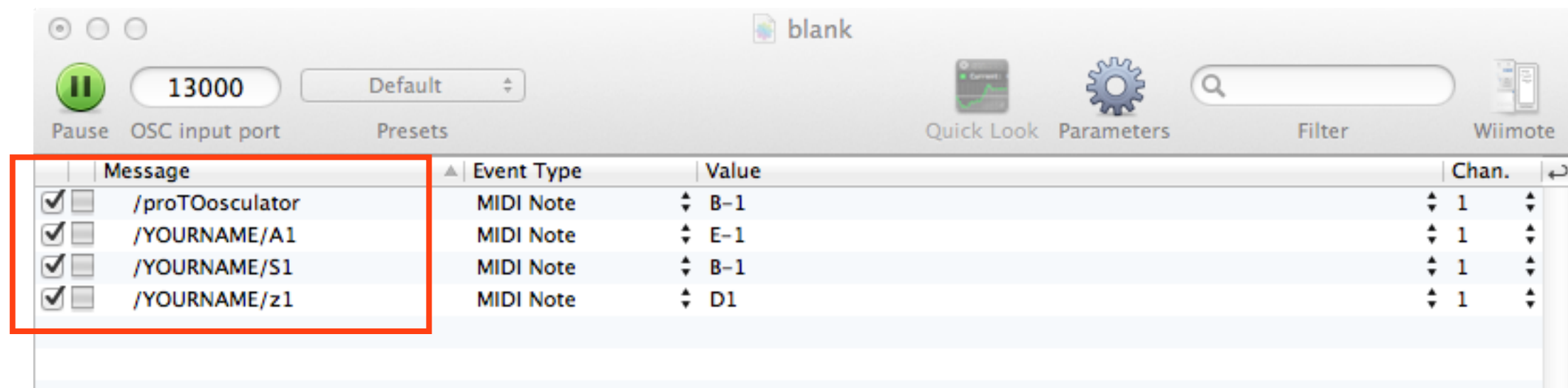


As before -- processing must point to OSCulator
-- make sure remotePort is 13000

Scroll down and find the keyPressed() method.
You should find a bunch of ADDRESS PATTERNS
that have YOURNAME in them -- change to your
name and run the sketch.

Click on sketch and then type A and S keys.

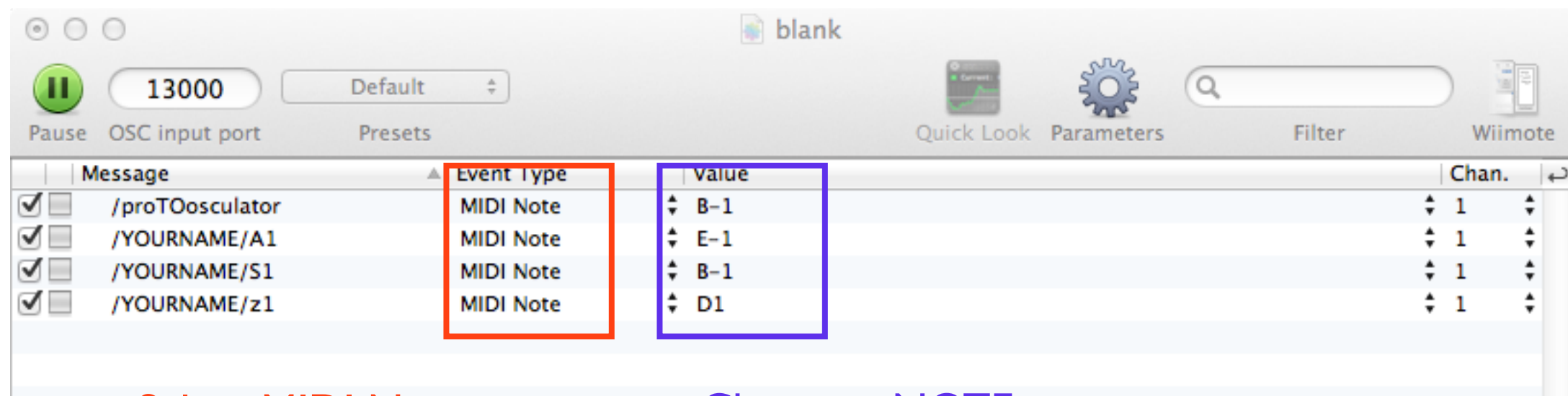
In OSCulator you will see your name and a letter
appear under message. (z means any other key was
pressed).



Send Message to Garage Band

Garage Band can listen for MIDI notes. So lets get OSCulator to send some.

For each message ADDRESS PATTERN do the following:



Select MIDI Note as event type from drop down.

Choose a NOTE under value.

The system will look like this (all on one machine):

Now with sketch in focus --
press **A** or **S** and hear sounds

