

# Getting Started Guide

## RetouchDuo version 4.0



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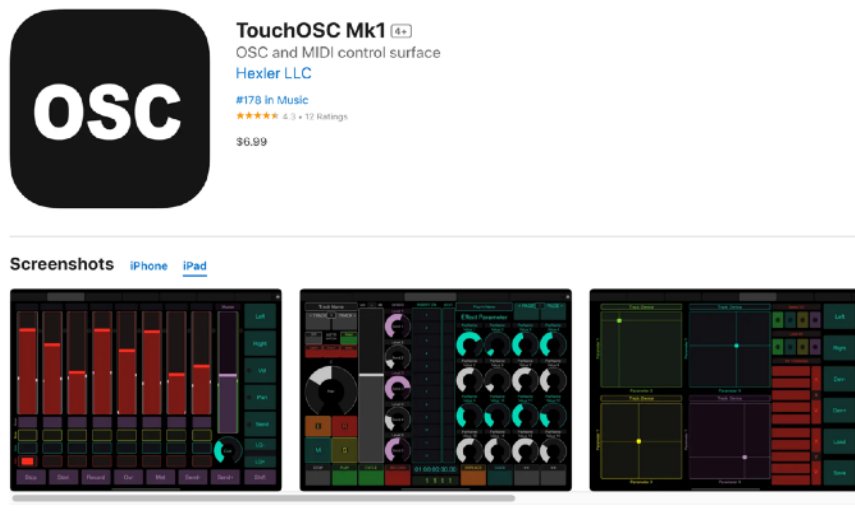
# Overview

RetouchDuo is a set of templates for controlling Reason from a mobile device. Any tablet or phone which is capable of running the [TouchOSC MK1](#) app from [hexler.net](http://hexler.net) can be used for remote control. You can get the TouchOSC MK1 app for both the iOS and the Android operating systems in the [iOS App Store](#) or in the [Google Play Store](#) respectively.

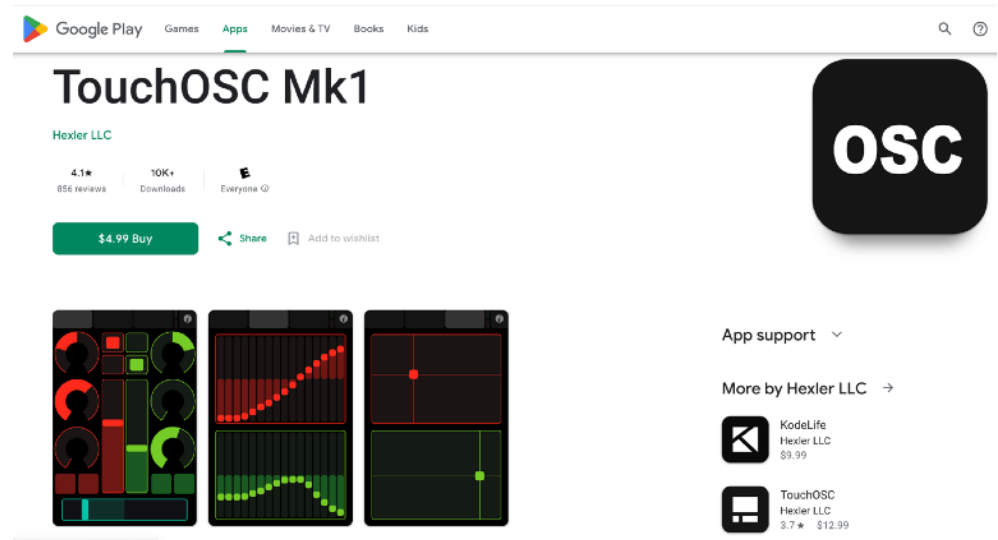
**Please note:** the RetouchDuo templates are NOT compatible with the MK2 version of TouchOSC.

In addition to the templates, RetouchDuo consists of a server app which runs in the background on the computer and manages the communication between Reason and the mobile device. It translates OSC messages from TouchOSC into MIDI messages which Reason understands.

In version 4.0, two brand new pages for controlling the Europa synth and the Grain Sample Manipulator instrument have been added to the tablet layout. For the phones, there is now a unified layout which provides extensive control over the mixer and most devices.



TouchOSC MK1 in App Store



TouchOSC MK1 in Google Play Store

# 1. Installation

## 1.1 Installing the Remote Files (Lua Codecs & Maps)

RetouchDuo comes with its own set of Remote Codecs and Map files which you will have to install in the proper directory on your HD using the provided install batch files. This is what you do:

- a) navigate to the "Remote Files" directory included in the RetouchDuo download
- b) double click on the install file for your operating system.

There are install files for Mac OS (*Install-macOS.command*) and for Windows (*Install-Win.bat*).

You can check that the files are correctly installed by navigating to the following folders and verifying their contents:

### -> LUA Codecs

- macOS  
Macintosh HD/Library/Application Support/Propellerhead Software/ Remote/Codecs/Lua Codecs/RetouchDuo
- Windows  
C:/Program Data/Propellerhead Software/Remote/Codecs/Lua Codecs/RetouchDuo

### -> Maps

- macOS  
Macintosh HD/Library/Application Support/Propellerhead Software/Remote/Maps/RetouchDuo
- Windows  
C:/Program Data/Propellerhead Software/Remote/Codecs/Maps/RetouchDuo

Please note, on Windows the directory "ProgramData" is hidden by default. You need to enable "Show hidden files". See how to do it here: <https://support.microsoft.com/en-us/help/14201/windows-show-hidden-files>.

If for some reason, the installer is not working, you can copy and paste the folders manually. These are the steps to do so:

1. Go to the download, open Remote Files, then "Lua Codecs", copy the entire RetouchDuo folder and paste at this location:  
macOS: Macintosh HD/Library/Application Support/Propellerhead Software/Remote/Codecs/Lua Codecs  
Windows: C:/ProgramData/Propellerhead Software/Remote/Codecs/Lua Codecs
2. Then go back to the download, open Remote Files, then "Maps", copy the entire RetouchDuo folder and paste at this location:  
macOS: Macintosh HD/Library/Application Support/Propellerhead Software/Remote/Maps  
Windows: C:/ProgramData/Propellerhead Software/Remote/Maps
3. Restart Reason

**Attention Mac Users!** if you have Reason 11 or later and you did not update from a previous version of Reason but installed from scratch, then the remote files are not installed in "Application Support" but are contained inside the application bundle. Right click on the Reason application icon and choose "Show Package Contents", there you'll find these folders:

Contents/Resources/Remote/DefaultCodecs/Lua Codecs  
Contents/Resources/Remote/DefaultMaps

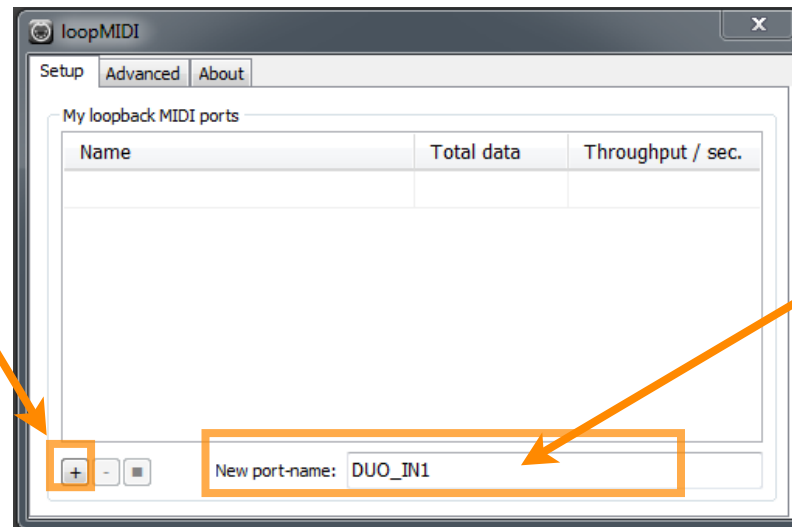
## 1.2 Creating Virtual MIDI Ports

### 1.2.1 Windows

Windows users will have to install a third party software to create Virtual MIDI Ports. We recommend using LoopMIDI (<http://www.tobias-erichsen.de/software/loopmidi.html>).

For video instructions, please refer to this video [HERE](#). The following text and graphics also explain how to set up LoopMIDI on your computer.

1. Go to the LoopMIDI website, download and install it.
2. Launch the LoopMIDI application. Follow the example below to create the MIDI ports
3. Create 4 MIDI ports: "DUO\_IN1", "DUO\_IN2", "DUO\_OUT1" and "DUO\_OUT2"



2. Click on the + button to add the port

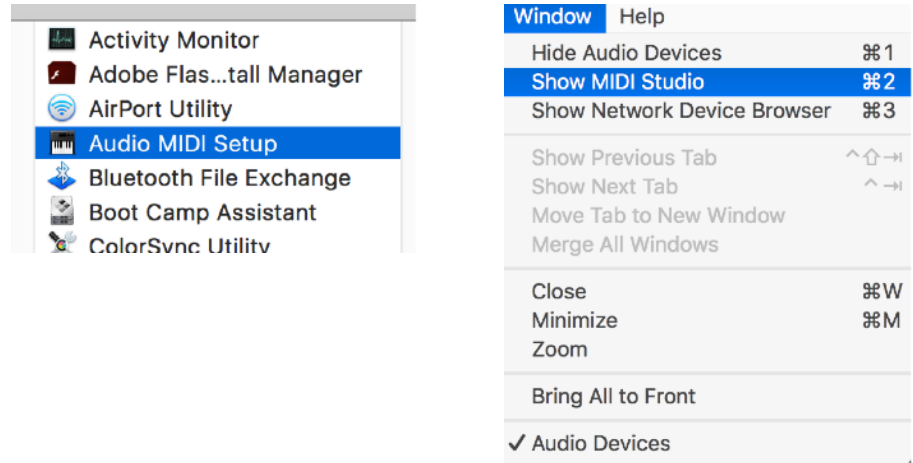
1. Type the name of the port here

### Creating a midi port in LoopMIDI

## 1.2.2 Mac

Mac users can use the native IAC bus to create the necessary ports. Please follow these steps. For video instructions, please refer to this video [HERE](#).

**Step 1:** On your Mac, go to the Applications folders, then open the “Utilities” folder and launch the “Audio MIDI Setup” application. Then from the Window menu, choose “Show MIDI Studio”



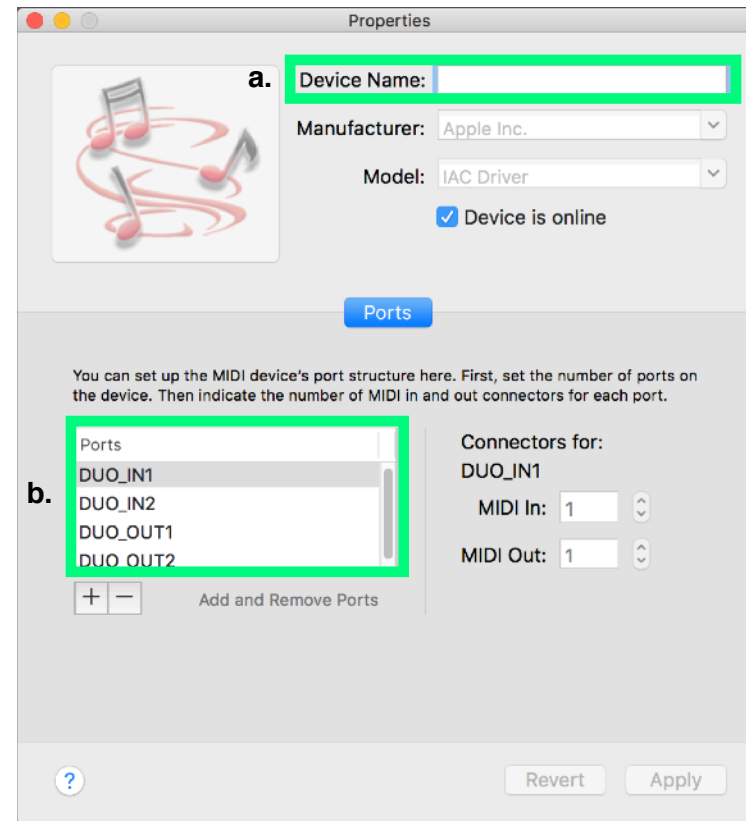
**Step 2:** Double click on the IAC icon to open the set up screen.





**Step 3:**

- a. keep the device name empty
- b. click on the + sign to create 4 ports and give them the following names "DUO\_IN1", "DUO\_IN2", "DUO\_OUT1", "DUO\_OUT2"
- c. click on "Apply"

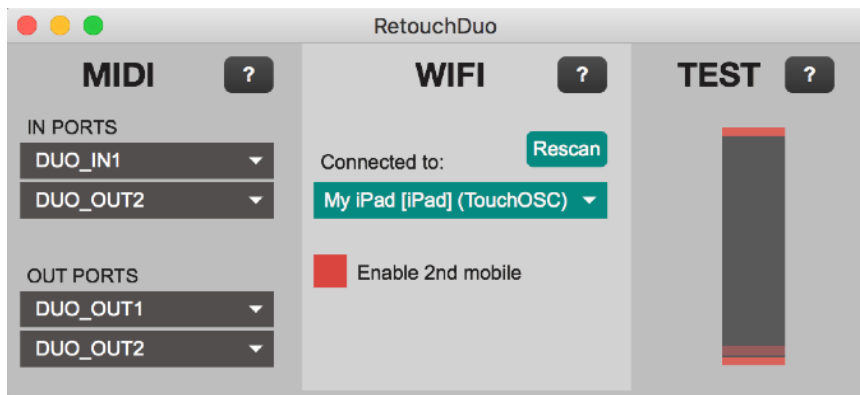


## 1.3 Launching the RetouchDuo Application

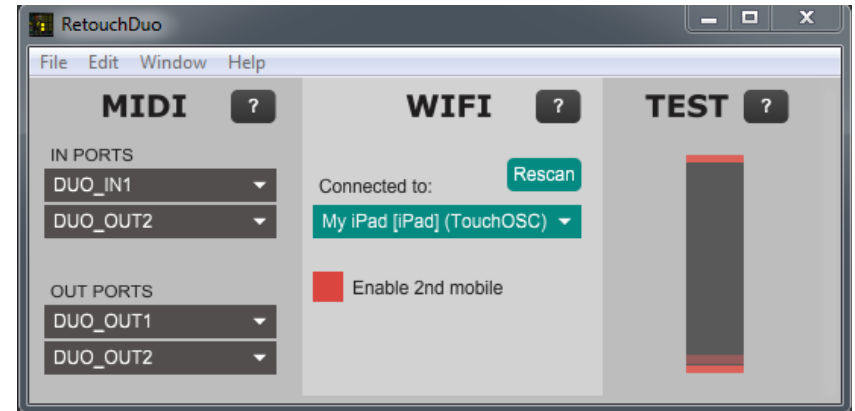
Navigate to the “App” folder in the download. Select the folder for your operating system and open it.

If you are on a Mac, double click on the file called “RetouchDuo” (you might want to drag this file on the dock for faster launching in the future).

If you are on Windows, double click on the file named “RetouchDuo.exe” (you might want to create a shortcut on the desktop). After launching the application, it will look like the images below.



**RetouchDuo app on Mac**



**RetouchDuo app on Windows**

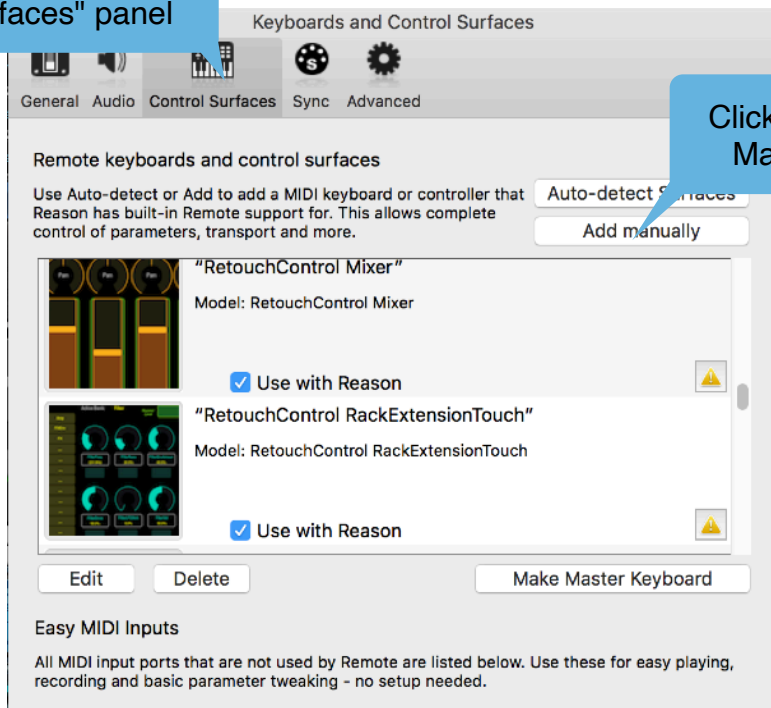
## 1.4 Configuring the Retouch control surfaces in Reason

\* For video instructions, please visit the "Installation" tab of the [RetouchDUO](#) page.

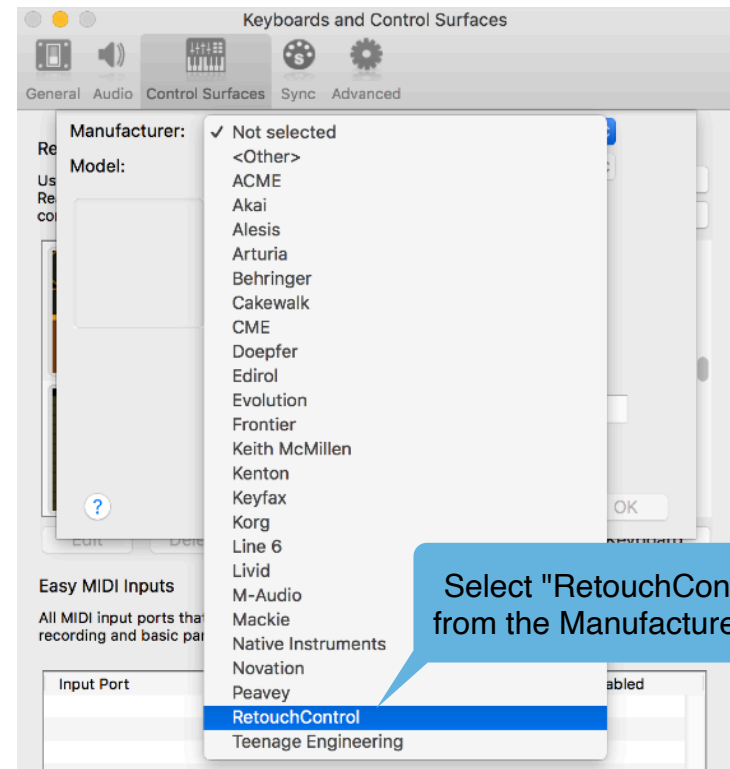
Launch Reason in order to configure the control surfaces. Go to Reason's preferences and then open the "Control Surfaces" panel.

From there, click on "Add Manually" and select "RetouchControl" from the list of Manufacturers. Then you will have to select a specific model and configure the IN and OUT ports. The table on the following page lists all the control surfaces which need to be added and their respective ports settings.

Select the "Control Surfaces" panel



Click on "Add Manually"

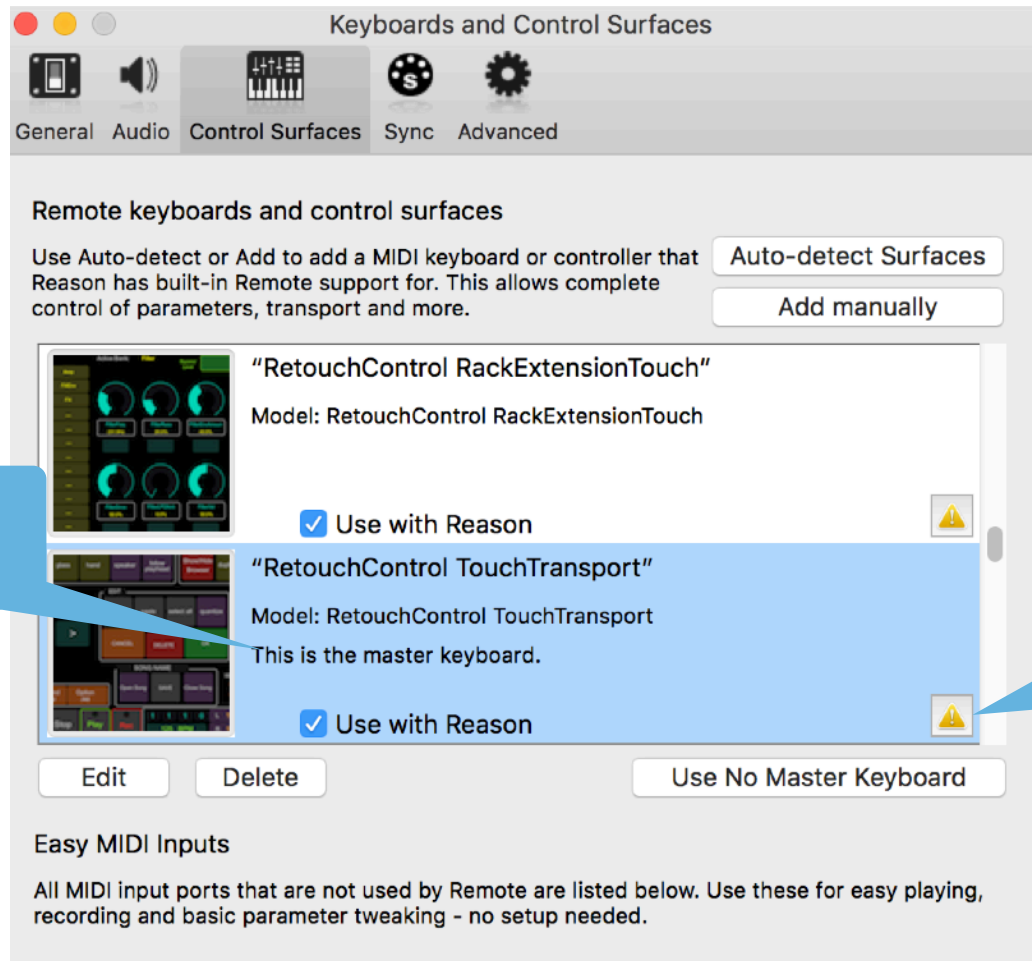


Select "RetouchControl" from the Manufacturer list

The table below shows all the control surfaces and how to configure the MIDI ports when creating them in Reason.

<b>CONTROL SURFACE</b>	<b>Template(s)</b>	<b>IN PORT</b>	<b>OUT PORT</b>
<b>Mixer</b>	Mixer, Master	DUO_IN1	DUO_OUT1
<b>MixerChan</b>	Channel	DUO_IN1	DUO_OUT1
<b>RackExtensionsTouch</b>	Devices	DUO_IN1	DUO_OUT1
<b>KongTouch</b>	Kong, KStep	DUO_IN1	DUO_OUT1
<b>RedrumTouch</b>	Redrum, RStep	DUO_IN1	DUO_OUT1
<b>RedrumStepTouch only</b>	RStep	DUO_IN2	DUO_OUT2
<b>EuropaTouch</b>	Europa	DUO_IN2	DUO_OUT2
<b>GrainTouch</b>	Grain	DUO_IN2	DUO_OUT2
<b>ThorTouch</b>	Thor	DUO_IN1	DUO_OUT1
<b>Thor2Touch</b>	Thor2	DUO_IN1	DUO_OUT1
<b>SubtractorTouch</b>	Subtr	DUO_IN1	DUO_OUT1
<b>MalstromTouch</b>	Malstr	DUO_IN1	DUO_OUT1
<b>CombinatorTouch</b>	Combi	DUO_IN1	DUO_OUT1
<b>NN19Touch</b>	NN19	DUO_IN1	DUO_OUT1
<b>RPG8Touch, MatrixTouch</b>	Rpg8	DUO_IN1	DUO_OUT1
<b>ReGrooveTouch</b>	Groove	DUO_IN1	DUO_OUT1
<b>TouchTransport</b>	Keys, Sqnz	DUO_IN1	DUO_OUT1

**Important:** unless you have another controller set up as master keyboard, please set "TouchTransport" as master keyboard.



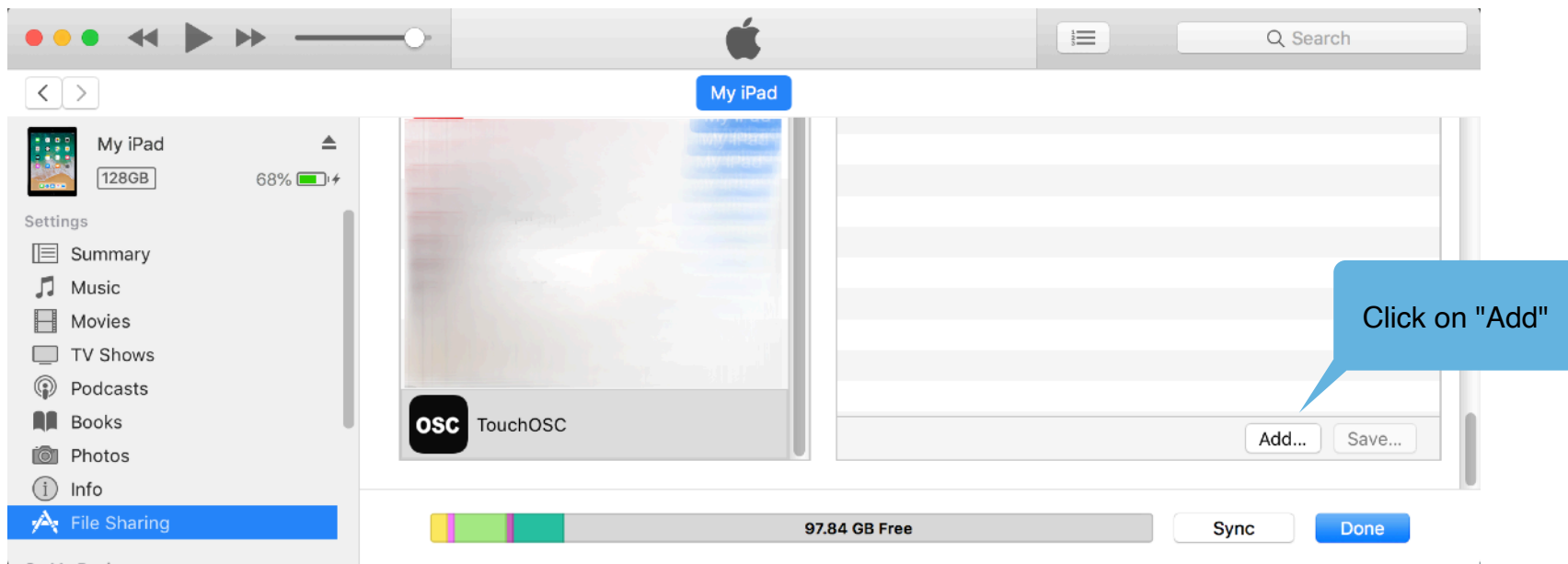
Configuring "TouchTransport" as master keyboard

Ignore this warning

## 1.5 Transferring the TouchOSC layouts to your device

### iOS

Connect your device to the computer via the USB cable. Launch iTunes, click on your device and in "Settings" select the "File Sharing" entry. From the list of apps, select TouchOSC, click on "Add" and navigate to the "TouchOSC templates" folder included in the RetouchDuo download. Please select and transfer the desired layout to your device.

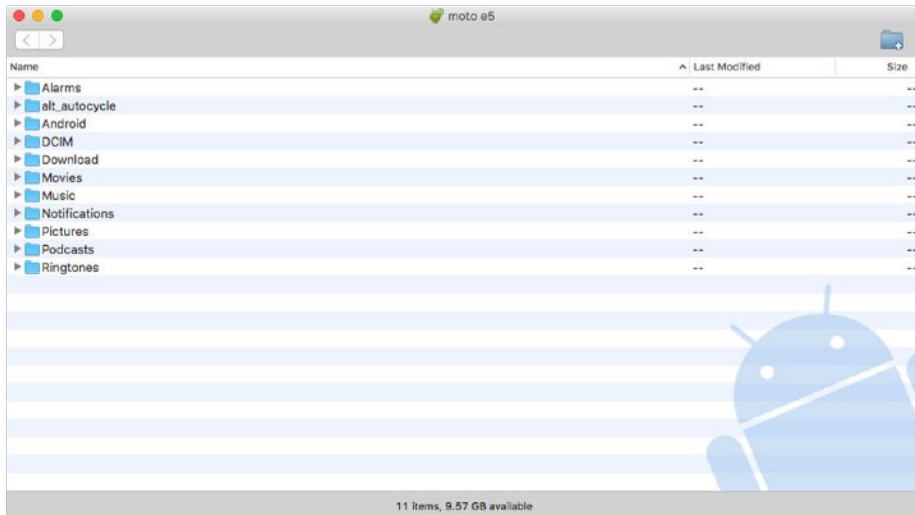


## **Android**

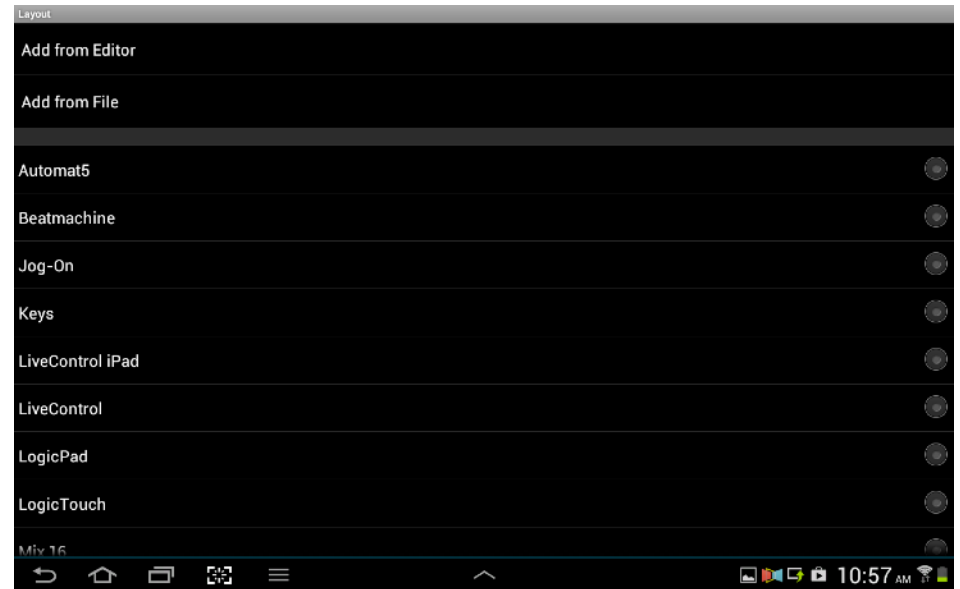
Connect your device to the computer via the USB cable. If you are on Windows, your device is going to show up automatically as an external mass storage device. If you are on Mac, this won't happen automatically. You need to download an application called "Android File Transfer" from [www.android.com/filetransfer/](http://www.android.com/filetransfer/).

Once you are able to navigate the file system of your Android device with the Windows File Explorer (Windows) or the Finder (Mac), you might want to create a new folder where you can store the Retouch layout. After that, just copy the desired layout from the "TouchOSC layout" folder included in the download to the folder you just created on your device.

After you have copied the layout(s) to the device, launch TouchOSC and go to "Layout". In the successive screen, tap on "Add from File". This will allow you to navigate your device file system. Go to the folder where the RetouchDuo layout is stored and choose to load it. Tap on "Done" and you should now be able to use the layout.



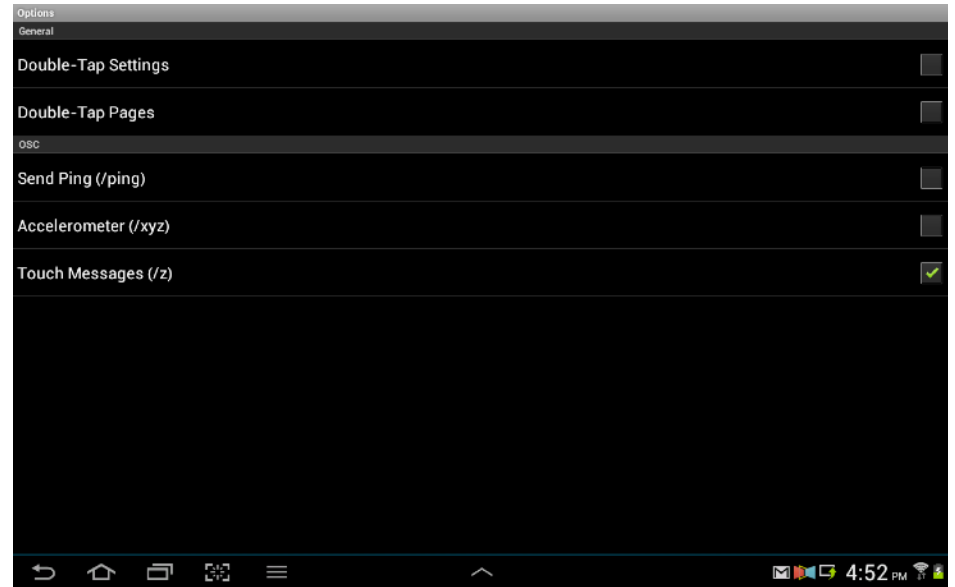
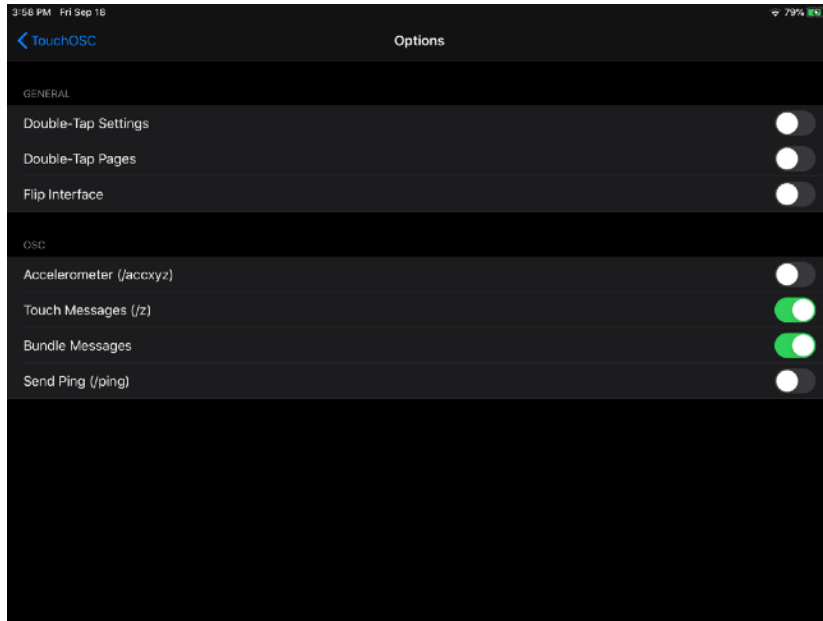
**AndroidFileTransfer on Mac**



**"Add from File" option in TouchOSC**

## 1.6 Configuring TouchOSC

Under the "Options" section in TouchOSC, please enable "Touch Messages (/z)" and "Bundle Messages". See images below for details.



### TouchOSC Options Page

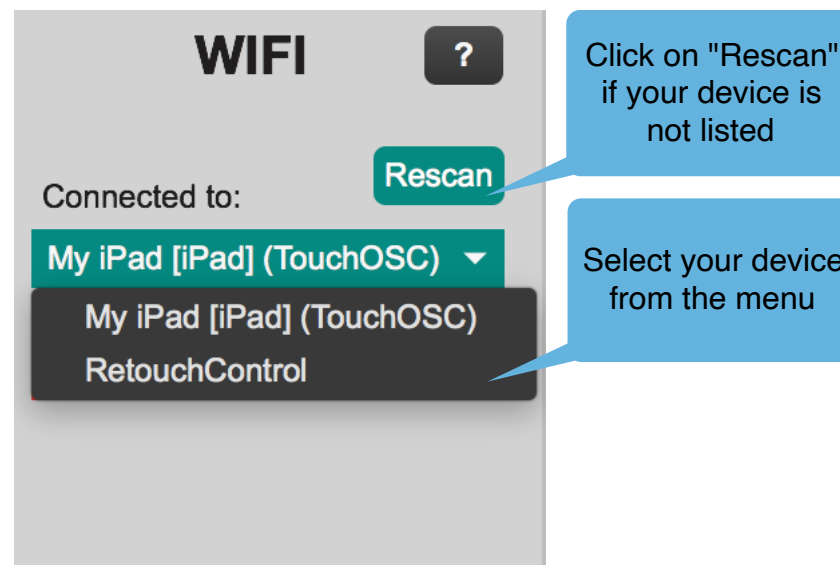


## 1.7 Establishing a connection between your device and the computer

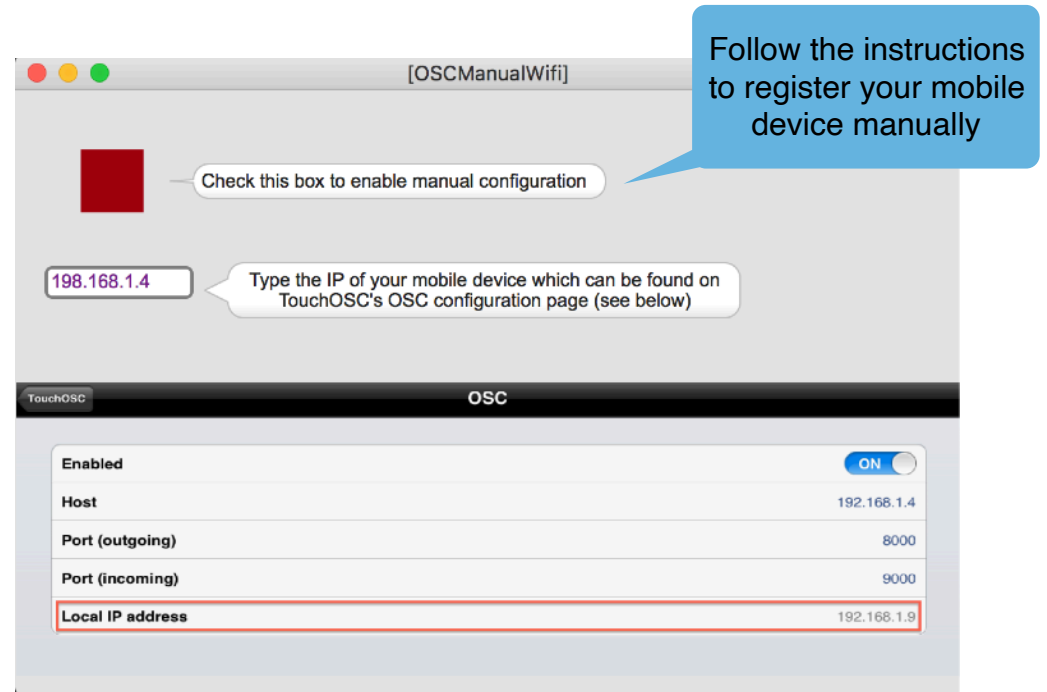
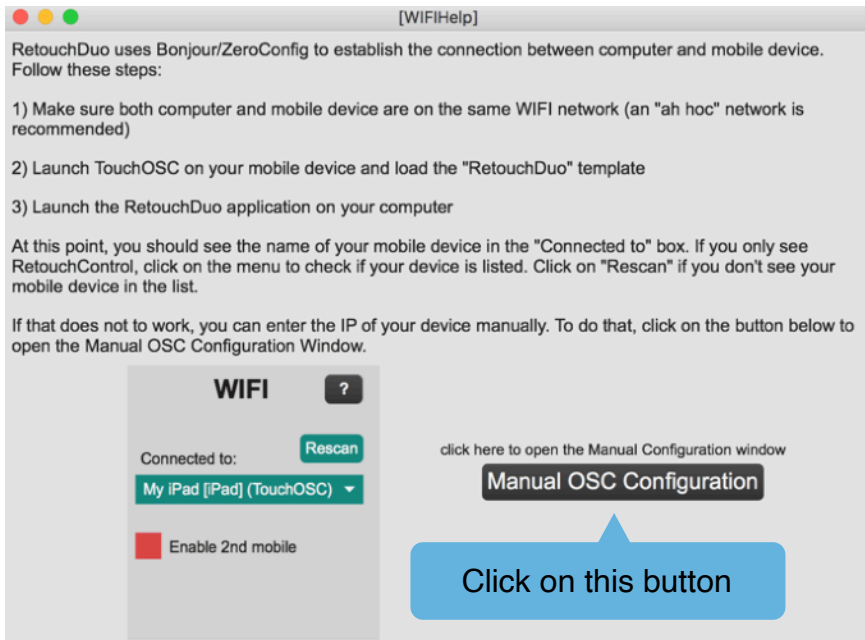
RetouchDuo uses the Bonjour/ZeroConfig broadcasting and discovery protocol to "automatically" connect the mobile device and the computer over WiFi. This means you won't have to bother with manual assignments of the IP addresses of your devices. In just a few clicks, you should be ready to go. However, it is important that you follow the right sequence for this to work. Follow these steps exactly. You can do this even before launching Reason:

- a) make sure your mobile device and the computer are on the same wifi network. For best performance, it is recommended that you use an "ad hoc" network.
- b) launch TouchOSC on the device and load the RetouchDuo layout
- c) now launch the RetouchDuo app on your computer

After the app has finished launching, the menu in the WIFI area of the RetouchDuo app should display the name of your mobile device, for example "John's iPad(TouchOSC) or "Android(TouchOSC). Click on the menu to make sure it is listed and select it by clicking on it with the mouse. If your device is not listed, click on the "Rescan" button.



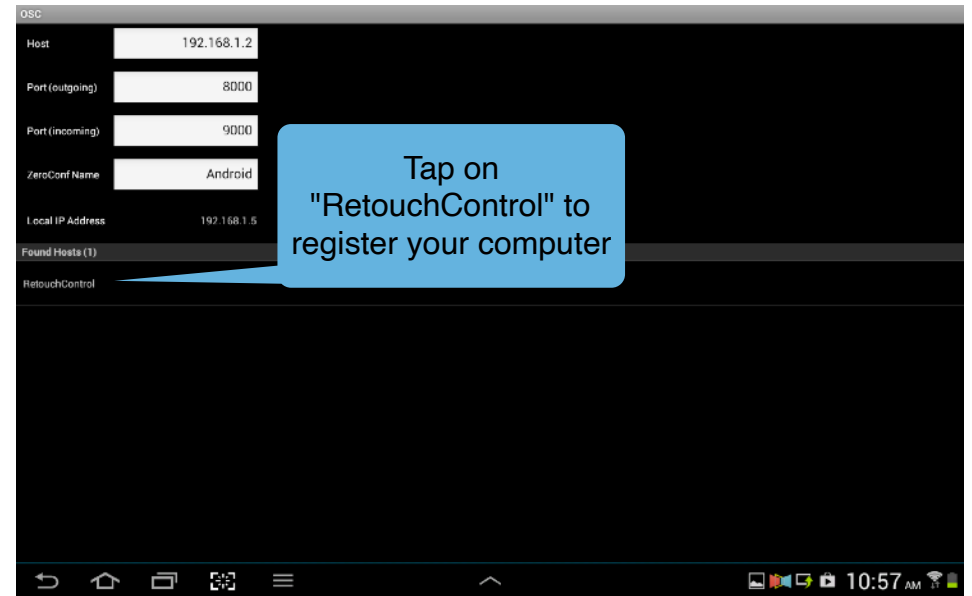
If the automatic connection fails, you can still connect manually. Click on the "?" in the WIFI section of the app, and then in the new windows which opens click on "Manual OSC Configuration". This will open a new window. Please follow the instructions there. You find the IP assigned to your device by navigating to TouchOSC's "Connections/OSC". The IP is displayed in the "Local IP address" row.



Once your device is listed and selected in the menu, the next step is to configure TouchOSC. Go to the "Connections/OSC" page and under "Found Hosts", tap on "RetouchControl".



**TouchOSC's OSC configuration page on iOS**



**TouchOSC's OSC configuration page on Android**

At this point, you should perform the bi-directional communication test. To make sure you have a connection going both ways, move the master fader on the Mixer page and check that it responds in the RetouchDuo app "Test" area. Then move the fader in the "Test" area with your mouse and check that it moves on your device. You can do this test even before launching Reason, and anytime you have communication issues. If the test is successful, then congratulations, you are ready to play!

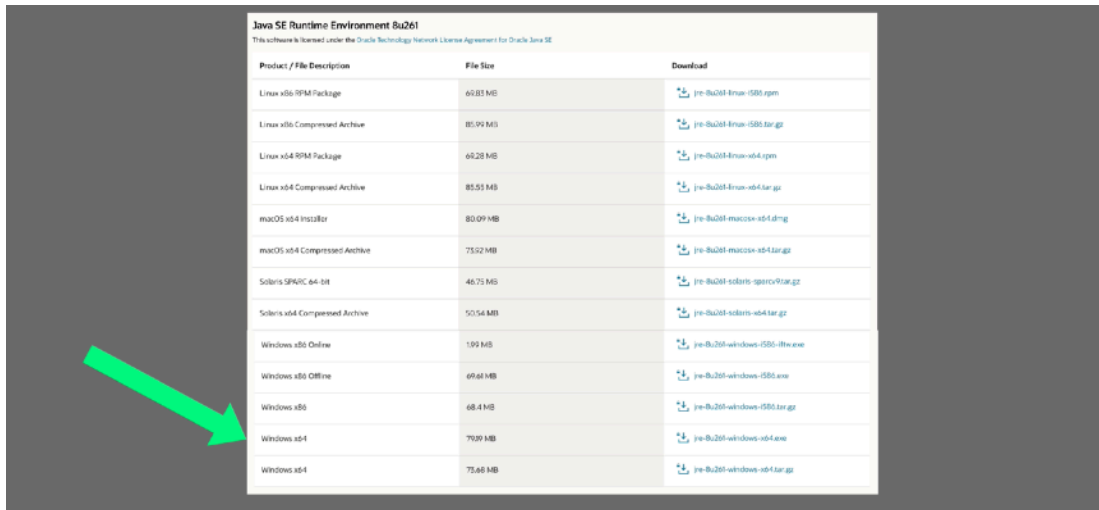


## 1.8 Configuration for key commands

There are several pages on the layouts which make use of key commands, for example to switch views in Reason or to open and close the browser. These key commands work natively on Mac, but on Windows they require the installation of the Java Runtime.

### Windows:

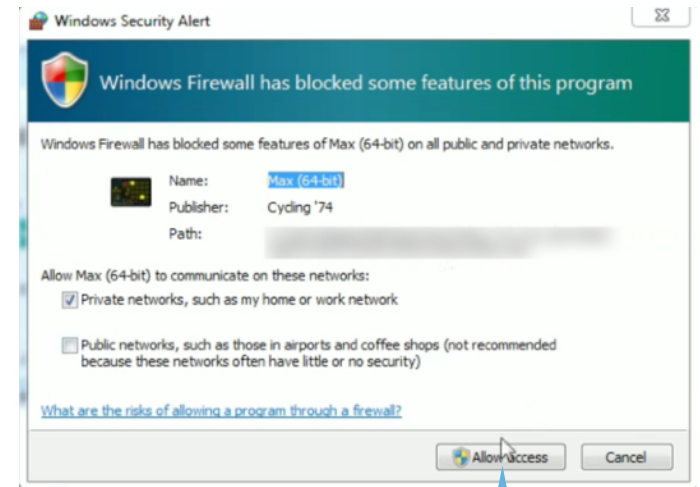
If you are on Windows, please download and install the [Java Runtime 8 64bit](https://www.oracle.com/java/technologies/javase-jre8-downloads.html) from Oracle. Furthermore, when you first launch the RetouchDuo app, you might get an alert from Windows Firewall. Please grant access to the app by clicking on the "Allow Access" button as shown in the pic on the right below.



Product / File Description	File Size	Download
Linux x86 RPM Package	62.81 MB	<a href="#">jre-8u261-linux-i586.rpm</a>
Linux x86 Compressed Archive	85.99 MB	<a href="#">jre-8u261-linux-i586.tar.gz</a>
Linux x64 RPM Package	62.28 MB	<a href="#">jre-8u261-linux-x64.rpm</a>
Linux x64 Compressed Archive	85.51 MB	<a href="#">jre-8u261-linux-x64.tar.gz</a>
macOS x64 Installer	80.09 MB	<a href="#">jre-8u261-macosx-x64.dmg</a>
macOS x64 Compressed Archive	75.52 MB	<a href="#">jre-8u261-macosx-x64.tar.gz</a>
Solaris SPARC 64-bit	46.75 MB	<a href="#">jre-8u261-solaris-sparcv9.tar.gz</a>
Solaris x64 Compressed Archive	50.54 MB	<a href="#">jre-8u261-solaris-x64.tar.gz</a>
Windows x86 Online	199 MB	<a href="#">jre-8u261-windows-i586-rtx.exe</a>
Windows x86 Offline	69.64 MB	<a href="#">jre-8u261-windows-i586.exe</a>
Windows x86	68.4 MB	<a href="#">jre-8u261-windows-i586.tar.gz</a>
Windows x64	70.9 MB	<a href="#">jre-8u261-windows-x64.exe</a>
Windows x64	73.68 MB	<a href="#">jre-8u261-windows-x64.tar.gz</a>

download the Java Runtime for Windows x64

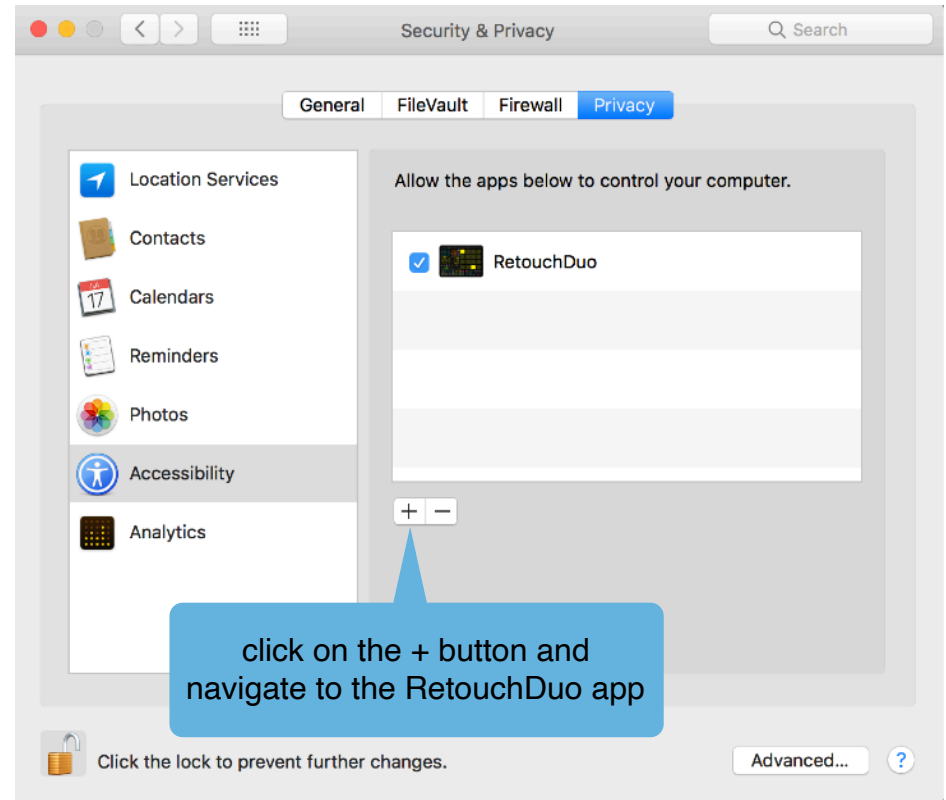
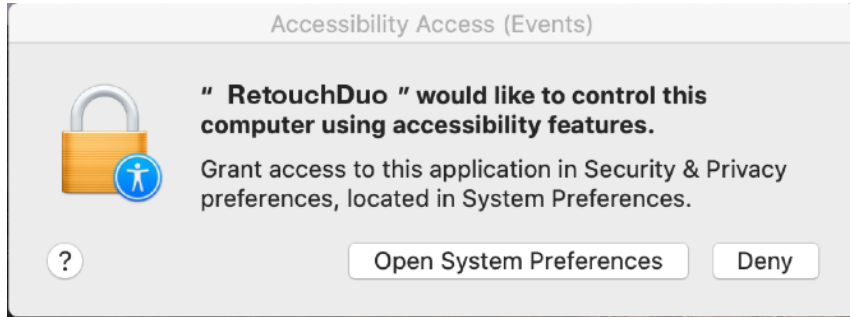
<https://www.oracle.com/java/technologies/javase-jre8-downloads.html>



Allow access

## Mac:

If you are on Mac, the OS might be blocking RetouchDuo from sending key commands to Reason. To avoid that, please add RetouchDuo in "Security and Privacy" settings.

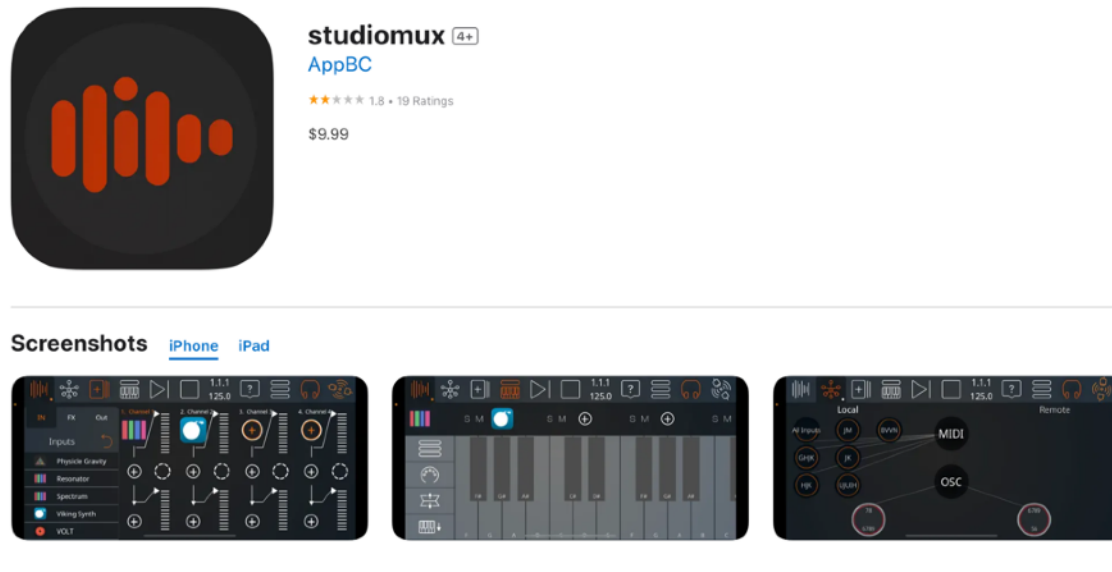


## 1.9 Optional: Wired OSC with the StudioMux app (iOS ONLY)

StudioMux is an iPad/iPhone application which allows transmission of OSC between the iPad/iPhone and the computer via the standard USB connector. In this section, we will show how to set up StudioMux and TouchOSC in order to have wired OSC communication. This will allow you to use RetouchDuo with ultra low latency without a wireless connection.

StudioMux comes with a server application which runs on the computer. There are versions for Mac and Windows which you can download from the [ZeroDebug](#) site. Make sure you have the latest versions of the app and the server!

From now on, we will describe the procedure mentioning the iPad specifically, but the steps are the same if you have an iPhone.



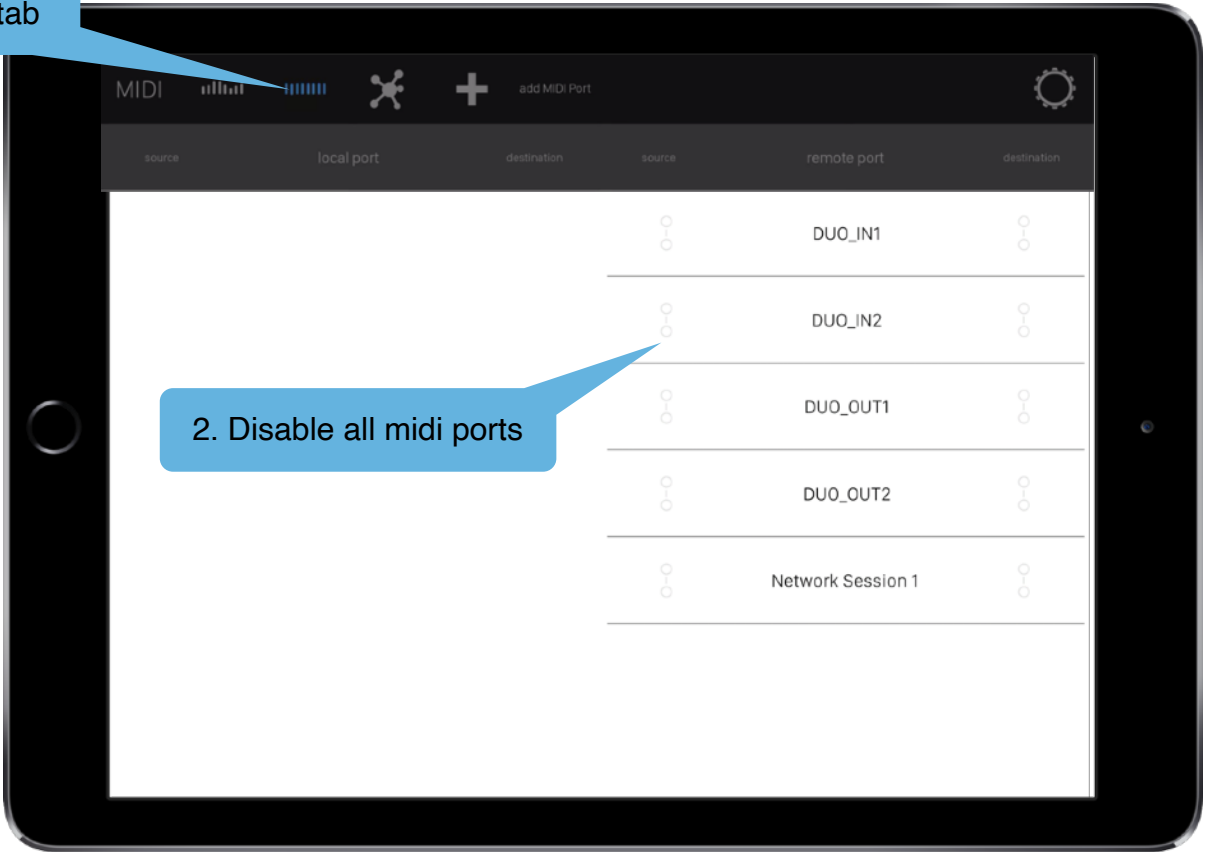
studiomux streams Audio, Midi and OSC via the simple USB cable and completely integrates iOS into your music production environment.  
Use your music apps just like you would use any other plug-ins. Use Midi controllers connected to your Mac or PC to control apps running on iOS. Or send OSC messages to compatible software. All via the standard USB cable, reliably at a low latency. Sync your musical Apps on multiple iOS devices with [the more](#)

### StudioMux app in the App Store

**Before following the steps below, ensure that your iPad is connected to WIFI (TouchOSC won't transmit OSC unless the device has the WIFI turned on). Connect your iPad to the computer via the USB connector cable and make sure you have the StudioMux server application running in the background.**

**Step 1:**  
Launch the StudioMux application on your iPad. Tap on the MIDI icon to enter the configuration page. Please disable any MIDI ports you have listed there in order to avoid potential midi conflicts.

1. Tap on the MIDI tab

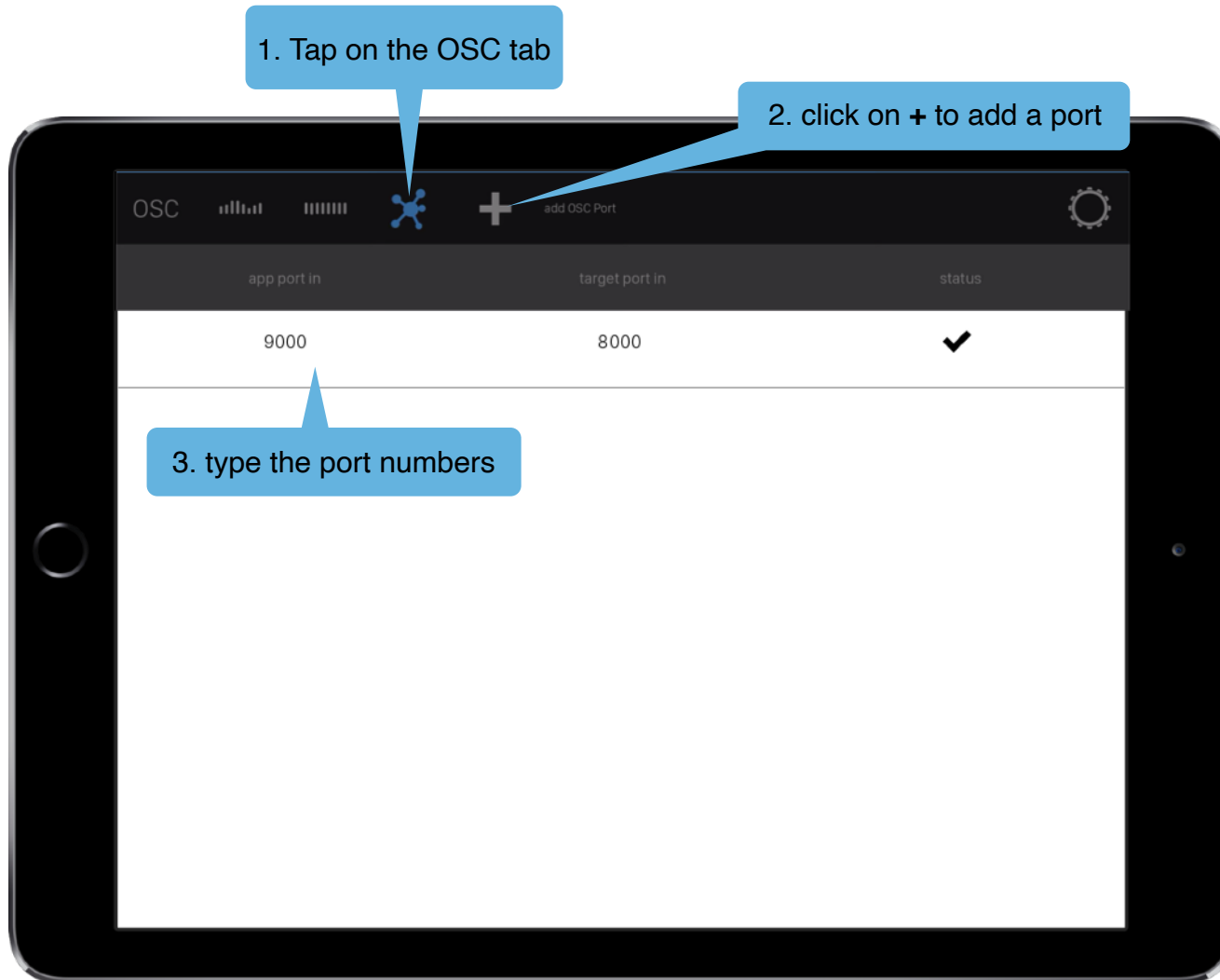


2. Disable all midi ports



## Step 2:

Now tap on the OSC icon to enter the OSC configuration page. If this is the first time, you will need to add an osc port. Tap on the “+” sign. For the “app port in” enter “9000”, and for the “target port in” enter “8000”. If everything is connecting properly, you should see a check sign under “status” as show below.



### Step 3:

Now launch TouchOSC on your iPad. Go to the OSC configuration page, and make sure that the Host IP is set to **127.0.0.1** as shown below. Return to the main page, and load the RetouchDuo template.

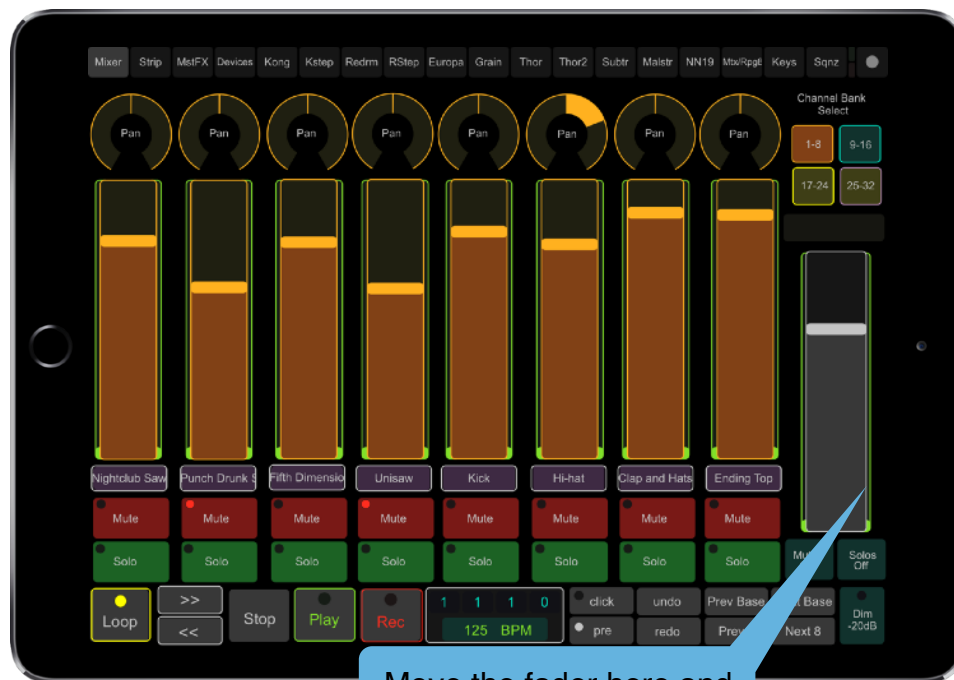


#### Step 4:

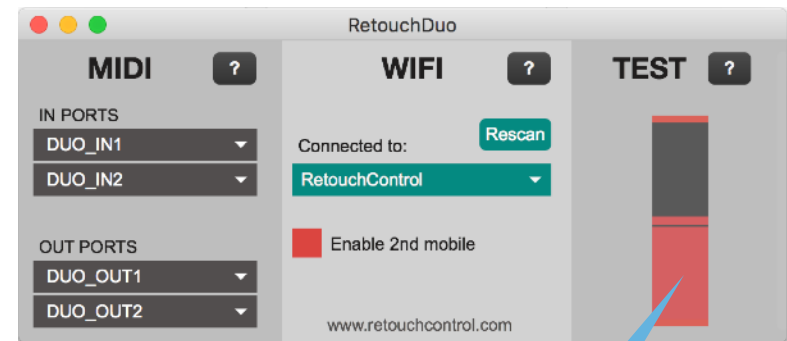
Now go to your computer. For the time being, turn OFF the WIFI. You can turn it back ON later, but for now keep it OFF so that it does not interfere with the set up.

With your computer WIFI off, launch the RetouchDuo app. After launching, it should look like the picture shown below. Go to the “Mixer” page of the RetouchDuo template in TouchOSC. Move the master fader and verify that it moves the fader in the “TEST” area of the RetouchDuo app. Similarly, move the fader in the “TEST” area with the mouse and verify that it moves on the iPad.

If you have communication both ways, then the setup worked and you are ready to use wired OSC! At this point, you can launch Reason and turn back ON your computer WIFI.



Move the fader here and verify that it moves on the computer



Move the fader here and verify that it moves on the mobile device

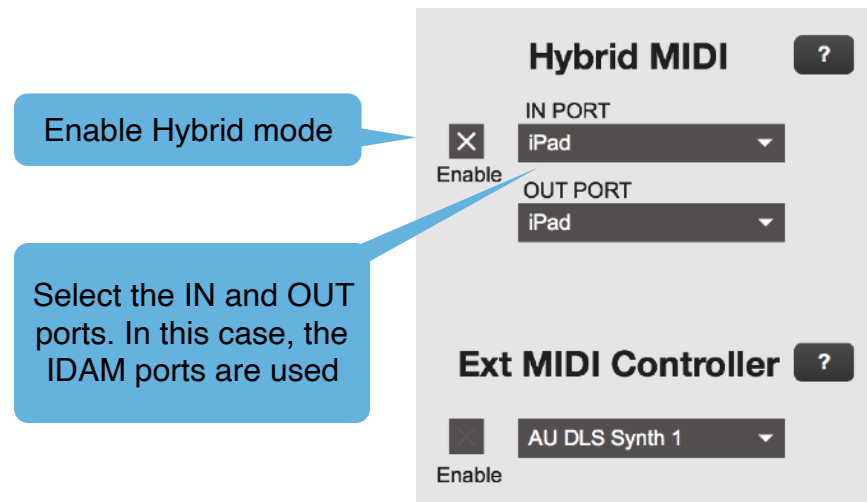
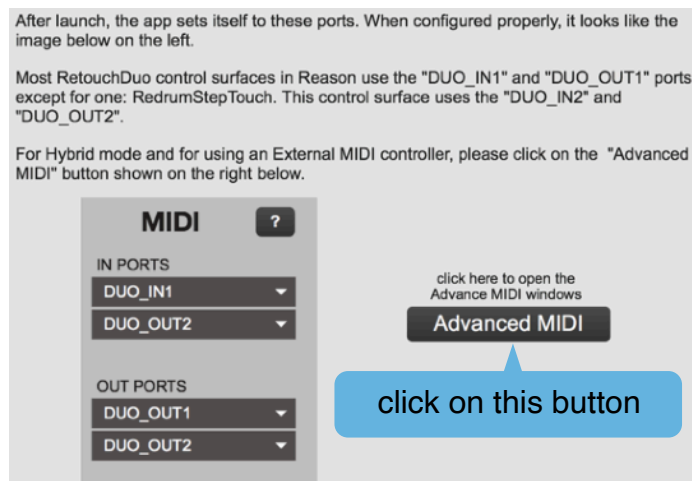
## 1.10 Optional: Hybrid Mode -> Wifi OSC + Wired MIDI (iOS ONLY)

In order to reduce latency, it is possible to use RetouchDuo via a wired MIDI connection, like the camera connection kit or one of the several commercial MIDI interfaces for iOS (Alesis I/O dock, IK Multimedia iRig MIDI interface, etc.). If you have an iPad and Mac running recent versions of the OS (iOS11 or newer, El Capitan or newer), then you should be able to use Core MIDI via the [IDAM wired connection](#) with the regular charging cable.

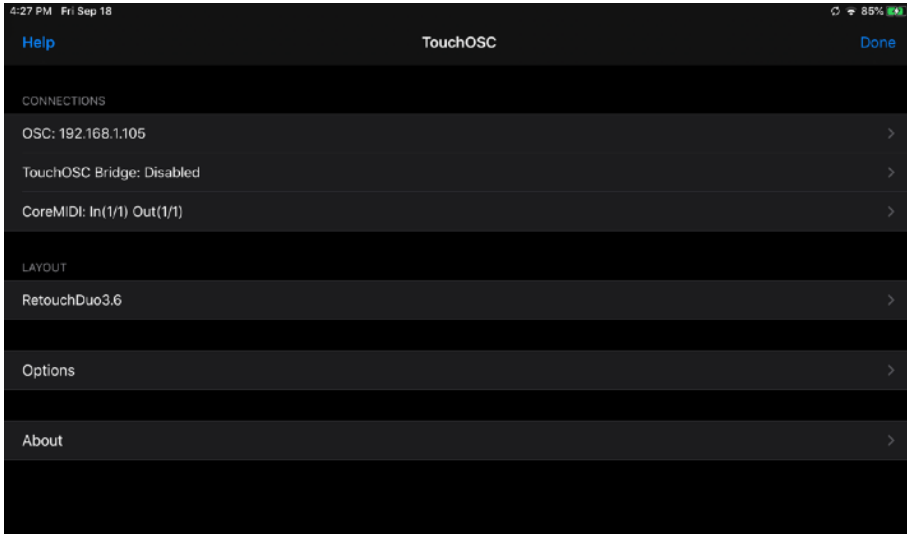
Please note: although the majority of the controls in Hybrid mode use MIDI, there are still several functions which will require a WiFi connection for OSC messaging (hence “hybrid mode”). The good news is that you likely won’t need to set up an “ad hoc” network. A regular WiFi connection should suffice as most of the heavy lifting is done by MIDI. Here is the list of the function which still require WiFi:

- All text feedback to the iPad, including channel names, device names, patch names and parameter feedback.
- Switching back and forth between piano and isomorphic layouts on the Keys page, or between keys and transport controls on the device pages (see section “5” of this document for more info on this).
- The Kong step sequencer, the Europa and Grain templates.

If you want to use “Hybrid Mode”, you need to enable it first in the RetouchDuo app. In the MIDI area of the app, click on the “?” button and from the window which opens, find and click on the “Advanced MIDI” button.



Additionally, you need to set up TouchOSC so that “CoreMIDI” and your interface MIDI In and Out ports are enabled. **Important:** make sure you keep the “MIDI Bridge” disabled or your are going to create MIDI feedback loops which will make the app unresponsive! See the following screenshots for an example.



### Configuration of CoreMIDI in TouchOSC using the IDAM ports

If you plan on using “Hybrid mode” as your default, it is possible to save the settings so that every time you launch the RetouchDuo app, you won’t need to do any manual configuration. There is a "Settings.json" file in the app package. Right click (command+click) on the “RetouchDuo” application icon and select “Show Package Contents”. Open the “Contents” folder, then open the "Resources" folder.

The “Settings.json” is a simple text file which can be edited in your editor of choice, like NotePad on Windows or TextEdit on Mac. There are three entries for Hybrid mode: the first one is used to toggle the hybrid mode checkbox on/off with a simple 0 or 1, while the other two rows are used to specify the MIDI interface ports names, as shown in the picture below. Please make sure that you enter your MIDI interface ports names exactly as they appear in the menus of the RetouchDuo app and that they are enclosed in “quotation” marks. **IMPORTANT:** please don’t change the file extension, it needs to remain ".json".

```
{
  "ReasonIN_Port1" : " DUO_IN1",
  "ReasonOUT_Port1" : " DUO_OUT1",
  "ReasonIN_Port2" : " DUO_OUT2",
  "ReasonOUT_Port2" : " DUO_OUT2",
  "Hybrid_Enabled" : 1,
  "Hybrid_Input" : "iPad",
  "Hybrid_Output" : "iPad",
  "External_Enabled" : 0,
  "External_Input" : "choose Input",
  "External_Output" : "choose Input"
}
```

Change "0" to "1" in order to enable Hybrid Mode

Type the name of the midi ports which were enabled in TouchOSC’s CoreMIDI

It is possible to switch back from Hybrid mode to OSC-only mode. Just make sure you click on the box to disable it (disconnecting the MIDI interface by itself will not do the job!).

## 2. Using the Templates

### "Follow Master Keyboard" vs "Locking" control surfaces

Since each device template has its own dedicated control surface in Reason, you can decide to let it "Follow Master Keyboard" or you can "Lock" it to a specific instance of a device. For example, let's assume that in your Reason project you have one instance of Kong, and two instances of Subtractor. Here are some scenarios:

**Scenario 1:** you choose to configure both KongTouch (the control surface for Kong) and SubtractorTouch (the control surface for Subtractor) to "Follow Master Keyboard". With this configuration, if your master keyboard has focus on the Kong track, the controls on the Kong page in TouchOSC will be active, but the controls on the Subtractor page will be inactive. Similarly, if you have the master keyboard focus on the first Subtractor, the Kong controls will be inactive and the controls on the Subtractor page will be active and ready to control the first Subtractor, but not the second. In order to control the second Subtractor, you need to change master keyboard focus to the second Subtractor. So in summary, the controls in TouchOSC will be active and ready to control *only* the device which has master keyboard focus.

**Scenario 2:** you choose to "Lock" the KongTouch surface to the Kong device and the SubtractorTouch surface to the first Subtractor (for more information on how to lock control surfaces to a specific device, please consult the Reason manual). In this case, the controls on the Kong and the Subtractor page in TouchOSC will always be active and controlling Kong and the first Subtractor device respectively, regardless of master keyboard focus. So if the master keyboard has focus on the second Subtractor, the controls on the Subtractor page will still control the first Subtractor since they are "locked" to it. Locking a surface to a device is useful if you plan on going back to it frequently and you don't want to change master keyboard focus every time you need to control it. Also, "locking" control surfaces to devices allows you to record notes and automation for all "locked" devices at once.

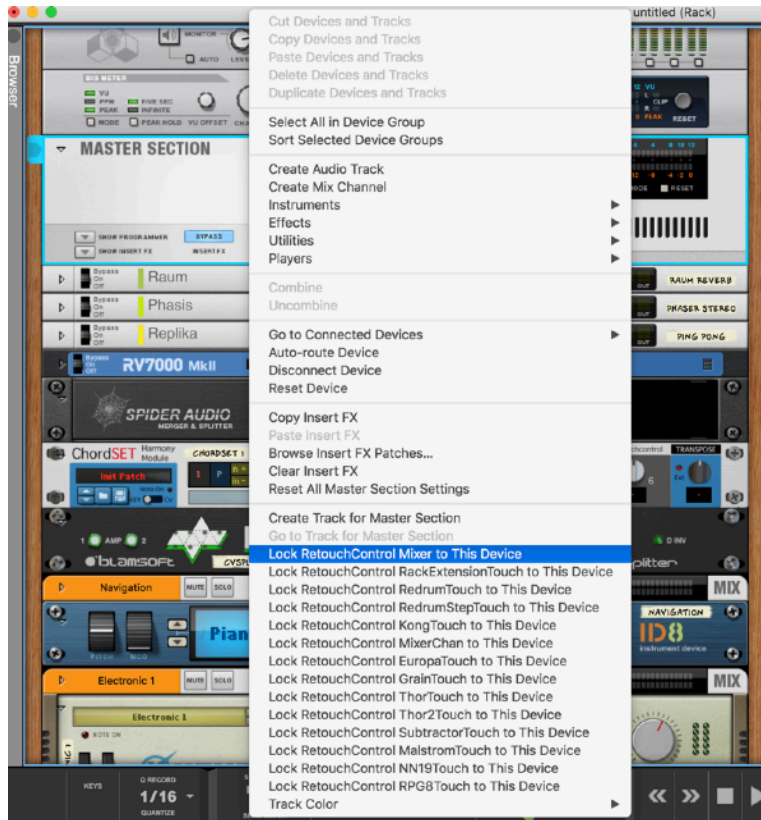
**Scenario 3:** you choose to "Lock" the KongTouch surface to the Kong device but let the SubtractorTouch surface follow the master keyboard. This is a hybrid case of scenario 1 and 2. The controls in TouchOSC will always be active on the Kong page, but the controls in the Subtractor page will only be active if the master keyboard has focus on either the first or the second Subtractor tracks. In this case, you can return at anytime to the Kong page in TouchOSC and tweak parameters and record beats, while you then switch from controlling the first and the second Subtractor by changing master keyboard focus.

# 3. Templates Details

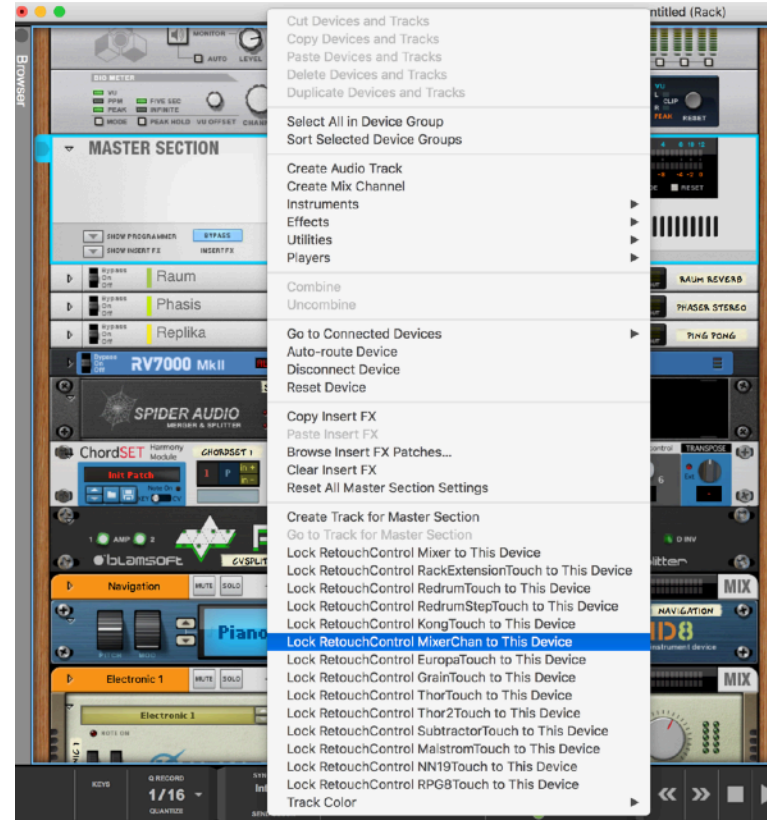
In the following sections you will find more info about some of the templates. Others are fairly intuitive and don't need much explanation.

## 3.1 Mixer and Channel Strip templates

To control the SSL Mixer, you have to lock both "Mixer" and "MixerChan" control surfaces to the Master Section in Reason as shown below. Select the Master Section in the rack, and right click on it to access the context menu.

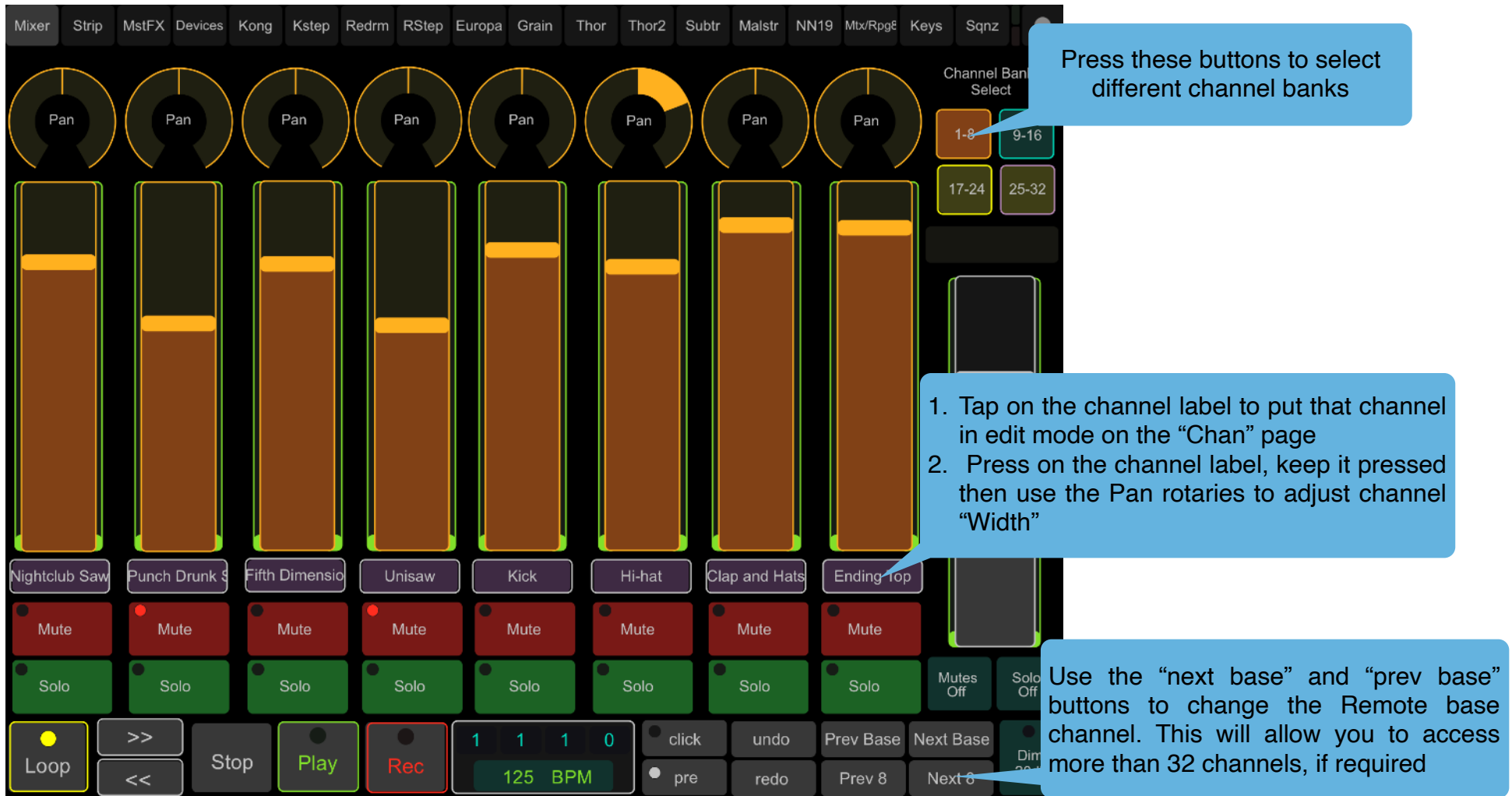


**Locking "Mixer" to the Master Section**



**Locking "MixerChan" to the Master Section**





**Main SSL Mixer page**



**Channel Strip page**

Tap to the right or left of the channel label to change which Mixer channel has edit focus

## 3.2 Kong and KStep templates

**Editing Drums** - in order to control a particular drum's parameter, you need to select it by using the selector pads in the upper left corner. When a pad is selected, the number on the button is displayed in red. You can control things like pitch, decay, fxs, etc. for the selected drum. In addition to selecting a particular drum, the selector pads also select which of the Kong pads is in focus for drum and pad group assignments.

**Pad Modes** - there are 3 modes for the main Kong pads and these are:

*Pads* - this is the mode that lets you "play" the drums, just like any regular pad controller. You adjust velocity while playing with the velocity slider

*Mute* - the pads turn into "mute" switches. Pressing them will mute any sound(s) associated with that particular pad

*Solo* - the pads turn into "solo" switches. Pressing them will solo any sound(s) associated with that particular pad  
To quickly undo any mutes or solos, press the clear mutes/solos button

**Step Sequencer** - To enter the step- sequencer mode, press the purple "Step Seq" button. This will direct you to the step sequencer page where you can program beats by entering steps in the drum matrix and adjust velocities with the bottom faders. By tapping on the top left corner number, you can change which drum is selected for editing. For example, if the number displayed is 5, then adjusting the bottom faders will change the velocities for pad 5 in Kong. Similarly, the "Rand Steps" and "Rand Velocity" will affect the selected pad only.

Once you create a pattern you like, you can store it in the preset matrix. There are 8 locations available. To store a pattern in the preset, keep the "Store Preset" button pressed and then hit one of the slots in the preset matrix. You can switch "live" between presets you have stored. Please note, the preset will change as soon as you select it.

The step-sequencer is synced with the transport in Reason, so you need to have "Play" engaged. You then can turn the sequencer on/off with the dedicated button.

Pad selector buttons: press on the pad whose drum you want to edit

Pad Mode selector buttons:

1. Press "Mute" to turn the pads into mute switches
2. Press "Solo" to turn the pads into solo switches
3. Press "Step Seqz" to go to the step sequencer page
4. Press "Pads" to return to play mode



Main Kong page

Tap the top or bottom of the number box to change which Kong pad is in edit focus

Turn the sequencer On/Off

Change sequencer motion

Change number of steps

Randomize steps for the selected pad

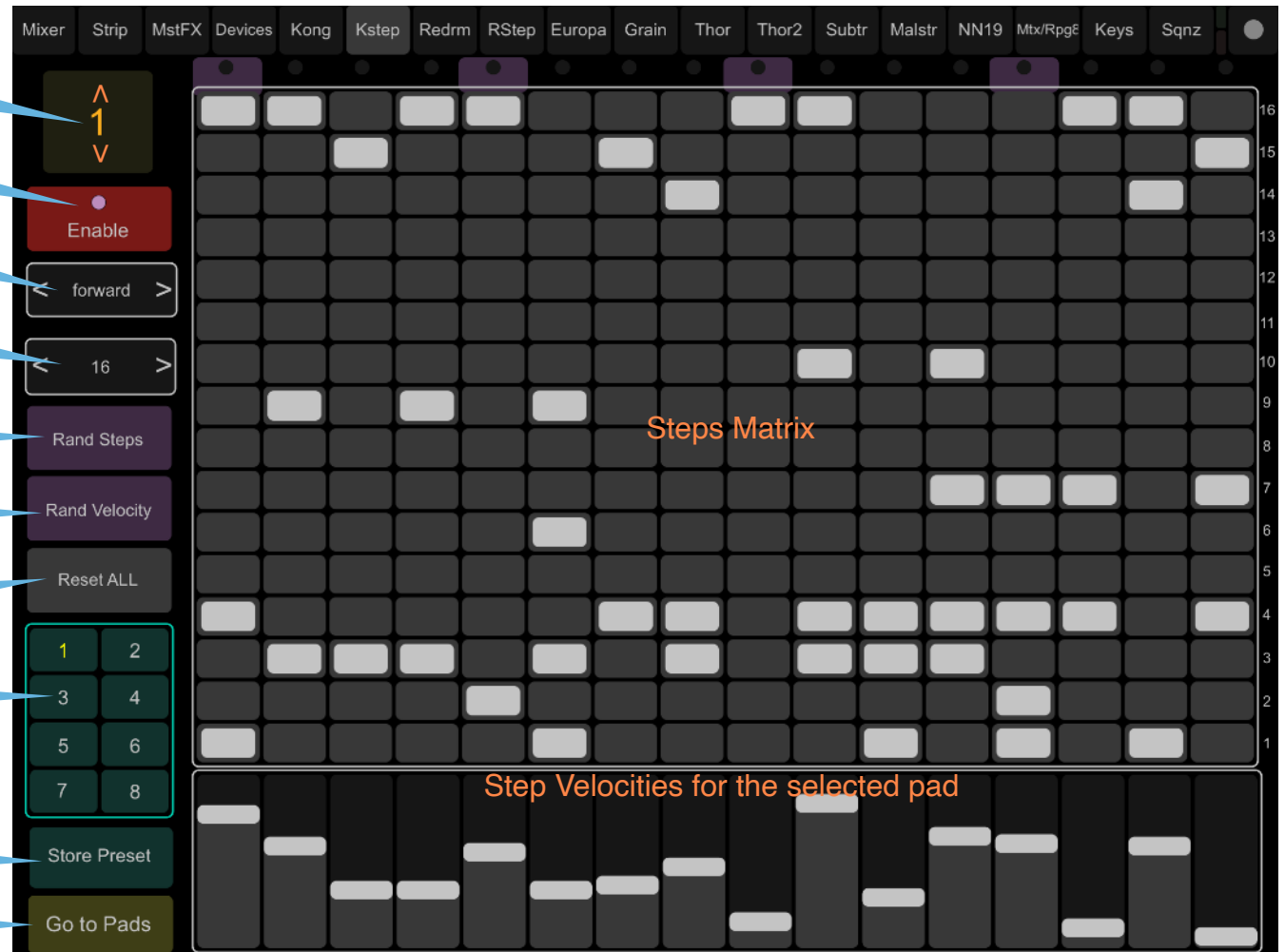
Randomize velocities for the selected pad

Reset all steps and velocities

Presets storage locations

Keep this button pressed and hit one of the preset locations to store a pattern

Return to the main Kong page



**Kong Step Sequencer page**

### 3.3 ReDrum and RStep templates

The ReDrum template has a lot commonality with the Kong template. You select a drum to edit by using the "Drum Selector" pads to the left of the main pads. The controls on the top of the page will update automatically to control the desired drum channel.

There are also 3 Pads mode, like in Kong, for playing, muting or soloing the drums.

Additionally, this page has controls for the ReDrum step sequencer. You can switch patterns and change the resolution remotely.

From the RStep page, it is possible to program the steps for the sequencer. You can program all 16 steps of all 10 drums at once from the button matrix.

The screenshot shows the ReDrum RStep interface. At the top, a rack of modules is visible, including Mixer, Strip, MstFX, 14.2, Kong, Octos, Redrm, Thor, Thor2, Subtr, Malstr, Combi, NN19, REs, Matrix, ReGry, FXs, KStep, RStep (highlighted), Perf, Keys, and Sqnz. Below the rack is a 10x16 grid for programming steps. The grid has 10 rows (numbered 1-10) and 16 columns. Some cells in the grid are highlighted in yellow, indicating programmed steps. Below the grid is a control panel with several sections: 'Pattern Control' with buttons for Enable, Run, and Go to Pads; a 4x4 grid of numbered buttons (1-16); 'Steps' with a vertical slider (0-64); 'Edit' with a vertical slider (0-64); 'Resol' with a vertical slider (1/16); 'Accent' with a vertical slider (Hard to Soft); a 'Flam' knob; 'Flam On' and 'Shuffl' buttons; and 'Pattern Edit' with buttons for copy, paste, clear, alter, random, shift <-, and shift ->.

Annotations in the image include:

- A box on the left labeled "Drum play/mute/solo buttons (function selected on main Redrum page)" pointing to the left side of the grid.
- A box on the right labeled "Step programming grid" pointing to the 10x16 grid.
- A box on the left labeled "Step Sequencer controls" pointing to the control panel below the grid.
- A box on the right labeled "Pattern Edit KeyCommands" pointing to the Pattern Edit buttons.

**Important:** the "Copy", "Paste", "Randomize", "Alter", etc. buttons work via key commands. In order for these to function properly, you need to click on the ReDrum device you are trying to control in the Reason rack.

## 3.4 Thor and Thor2 templates

There are two templates for Thor, "ThorTouch" and "Thor2Touch". The two templates can be used independently of each other, if you so desire.

In general, the same faders/ knobs/buttons can control different parts of the synth. For example, the controls in the Oscillator section can be used to control all three oscillators. You switch between them by pressing the "Osc1", "Osc2" and "Osc3" buttons. The controls will change color and will update accordingly. Same is true for the filters, the lfo's, the delay and chorus onboard effects, and the various envelopes.

It is possible to randomize the "active" faders, knobs and step controls to create randomized variations of your patch. Simply click on the "Patch" label of the patch change buttons to add some randomization. The function will affect only the "active" controls. For example, if "OSC1" is selected in the oscillator section, then only the Oscillator 1 parameters will be affected and Osc2 and Osc3 parameters will remain unaffected. If you want to randomize Osc2, make it active and then press on the "Patch" label again. Similarly for all the other controls which control multiple synth parameters (LFOs, Effects, Envelopes, etc.).



**Thor template**



**Thor2 template**

## 3.5 Subtractor and Malstrom templates

Like for the Thor templates, the same faders/knobs/buttons can control different parts of the synth. For example, the controls in the Oscillator section can be used to control both oscillators. You switch between them by pressing the "Osc1" and "Osc2" buttons. The controls will change color and will update accordingly. Similarly for the Filters and the Envelopes.

You can randomize the "active" faders, knobs and step controls to create randomized variations of your patch. Click on the "Patch" label of the patch transport controls to add some randomization.



**Subtractor Template**



**Malstrom Template**



## 3.6 Devices template

From this page, you can control most devices, whether instruments, effects or players, including Rack Extensions and VSTs. To control an instrument, effect or player, you have to give it master keyboard focus, or you can lock the “RackExtensionTouch” control surface to it. Please use the navigation buttons at the top left to navigate the rack, the controls on the page will update automatically to reflect which device is currently in “control focus”. Please note, for RE’s and VSTs you can only control those for which a mapping file exists. To see the list of REs and VSTs currently supported, please consult this page [HERE](#).

There are up to 24 control banks, depending on the device. Once you select a bank, the 8 rotaries/buttons will control the 8 parameters in that bank. Parameters are labelled with their name and their current value.

Buttons to select a specific control bank

Parameter name and value. Please note: both the rotary and the button underneath it affect the same parameter

### Devices Template

This page can also be used with the “External MIDI Interface” device to control external devices. If you lock the “RackExtensionTouch” control surface or give master keyboard focus to an EMI device, the page will update as shown below. As you can see, there are three additional buttons which appear when controlling an EMI device. They can be used to load custom naming schemes for the knobs on the page. By default, the knobs will show generic names according to their CC assignments, for example “CC 02”, “CC 04” and so on. However, if you are using a hardware synth, and you know for example that “CC 02” controls the “Oscillator Pitch”, then you can change the name that appears on the page by loading a “user” map. You can also rename the control banks this way.

A “user” map is a simple text file which you edit with a text editor on your computer. An example of such a file is included in the "Documentation" folder of the download. After editing the file, please make sure it is saved with a “.txt” extension. You load it by pressing “Load User Map” on the device and by navigating to the file location on your computer. See below for more info on the proper formatting of the file.



**EMI with default namina scheme**



Tap here to load a user map

Tap here to refresh the user map when changing control banks

Tap here to return to the default naming after loading a user map

**Loading custom user name map**

UserMapExample.txt

```
Device "DeviceName"  
****Start of Bank Names ****  
Bank1 "BankName"  
Bank2 "BankName"  
Bank3 "BankName"  
Bank4 "BankName"  
Bank5 "BankName"  
Bank6 "BankName"  
Bank7 "BankName"  
Bank8 "BankName"  
Bank9 "BankName"  
Bank10 "BankName"  
Bank11 "BankName"  
Bank12 "BankName"  
Bank13 "BankName"  
Bank14 "BankName"  
Bank15 "BankName"  
Bank16 "BankName"  
Bank17 "BankName"  
Bank18 "BankName"  
Bank19 "BankName"  
Bank20 "BankName"  
Bank21 "BankName"  
Bank22 "BankName"  
Bank23 "BankName"  
Bank24 "BankName"  
***Start of Bank 1 Names****  
Pot1 "Name"  
Pot2 "Name"  
Pot3 "Name"  
Pot4 "Name"  
Pot5 "Name"  
Pot6 "Name"  
Pot7 "Name"  
Pot8 "Name"  
***Start of Bank 2 Names****  
Pot1 "Name"  
Pot2 "Name"  
Pot3 "Name"  
Pot4 "Name"  
Pot5 "Name"  
Pot6 "Name"  
Pot7 "Name"  
Pot8 "Name"  
***Start of Bank 3 Names****  
Pot1 "Name"
```

Bank 2

The first item is the name of the external instrument you want to create a custom map for

Bank Names: fill in the names for the banks you intend to use

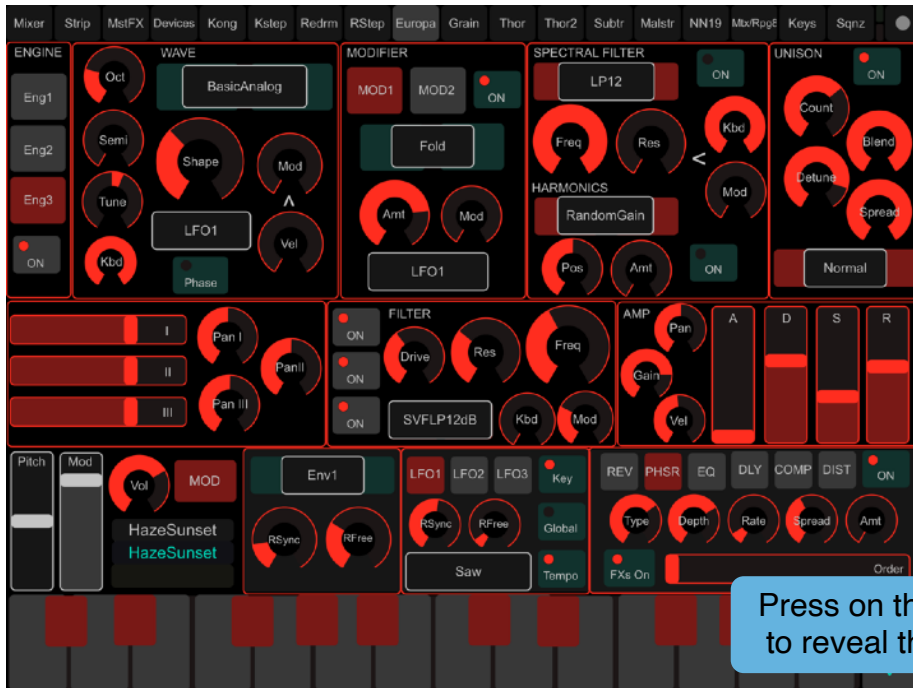
Control Parameter Names: name the controls for the first bank here.

Control Parameter Names: name the controls for the second bank here and so on....

### User map template file (in the Resources folder)

### 3.7 Europa and Grain template

New in version 4.0, these two pages provide extensive control for both the Europa synth and the Grain sample player. Apart from the Oscillator and Sample player sections, the templates share similar architecture for the envelopes, the LFOs, the effects and the mod matrix. By default, the mod matrix is hidden. You need to press on the "MOD" button to reveal the controls.



**Europa Template**



**Grain Template**

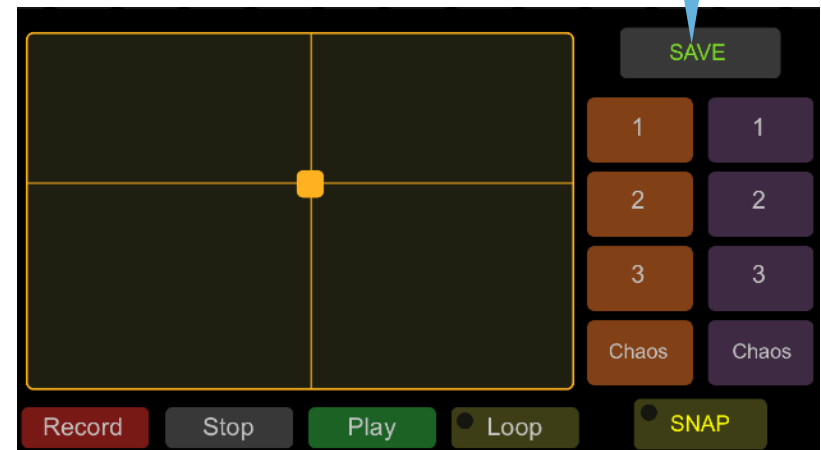
## 3.8 Combinator template

The combinator template offers two XY pads which let you interact in interesting ways with the combinator rotaries:

- you can save up to 3 XY pad locations in memory for instant recall and preset morphing. Make sure you have "SNAP" disabled, move the cursor to the desired location, press at the same time on "SAVE" and on one of either buttons "1", "2" or "3". This will save the cursor position to memory location "1", "2" or "3". Now if you move the cursor to another location, you can quickly jump back to the previously stored location by clicking on the corresponding memory location button;
- to randomize the cursor position press on the "CHAOS" button;
- if you want the cursor to "SNAP" back to a specific memory location as soon as you lift your finger off the cursor, double tap on the desired memory location and enable "SNAP";
- it is possible to record the cursor movements directly in the Retouch app without recording into the Reason sequencer. Press on "Record", move the cursor around, then press "Stop". To playback your movements, press on "Play". If you want your recording to loop continuously, enable "Loop".



While pressing on "Save", tap on one of the memory locations to store the current cursor position



Press on the "Record" to start recording your movements. Then press "Stop" to finish recording.

### 3.9 ReGroove Mixer template

In order to control the ReGroove Mixer in Reason, you need to lock it to the "RegrooveTouch" controller template. You do so by opening the ReGroove Mixer, then from the "Edit" menu, select "Lock RetouchControl RegrooveTouch to ReGroove Mixer".



**ReGroove Template**

## 3.10 Keys template

This page can function as master keyboard if you configure "TouchTransport" as such.

**Assigning Scale & Key:** you can force the notes played by the keyboard to a specific scale and key. This is easily done by selecting the scale with the navigation buttons and then assigning a key. There are a total of 15 scales to choose from, including Major, Minor, Pentatonic, the 7 modes, etc.

**Changing Octave:** use the octave buttons to change the octave played by the keyboard. The keyboard range goes from C-1 to B6.

**Using the chord tool:** it allows you to play one finger chords. Turn it on, and then by adjusting the faders, you decide how many notes are played when pressing a key and the distance in semitones from the keys that's currently pressed. If there is a chord you like, you can save it in one of the 6 available memory slots. To store a chord in memory, press both the "store" button and the memory slot button (labelled as "1", "2", etc.) simultaneously. Then you can switch between chords by choosing the proper memory slot button. If you want to keep the chords you have programmed for use in a future session, you can save them to file after having saved them to memory slots. Press the "save" button and a "save" dialog window will open up on your computer. To open this file in a later session, press the "open" button and an "open" dialog window will open up on your computer. Select the file and click on open.

**Note Repeat:** this is pretty straightforward to use. Turn it on, select the repetition rate and that's it. The repeat rates are automatically tempo synced to your Reason project.





**Isomorphic layout:** in addition to the the traditional piano keyboard layout, it is possible to switch to an isomorphic layout by pressing the “Iso” button on the lower right side. This will toggle between the piano and the isomorphic layouts if pressed consecutively. The isomorphic layout uses a “4th/2nd” note distribution, that is, the pitch ascends in fourth when going up from one row to the next in the same column, and ascends in second when moving to an adjacent pitch on the same row. The note distribution can be chromatic or forced to a particular scale. In general, the isomorphic layout follows the same settings of the piano layout for scale, octave, key and even chord and note repeat.



**Isomorphic “4th/2nd” layout**

## 3.11 Sequencer template

This page has a series of buttons which can be used to control some useful Reason functions via key commands. The key commands work natively on Mac. On Windows, please make sure you have the [Java Runtime 8 64bit](#) installed.

Use the "Refresh" button if you plan on using multiple TouchOSC layouts to "reactivate" the controls after you switch back to Retouch. In general, you can use this button every time the controls seem "inactive" for whatever reason.

Quick note on the "Loop to Select clip" button: this will allow you to move the loop locators to the selected clip or the selected block (if you have "blocks" penciled in "Song" mode). Normally, the action will happen as soon as you press the button. However, if you have the "sync" toggle enabled and the "Move loop to Select" button is pressed while the sequencer is playing, the action will happen "quantized" at the end of the bar.



The image shows a screenshot of the Reason sequencer interface. The interface is divided into several sections: VIEWS, SEQUENCER, CREATE, EDIT, MODIFIERS, and WHEEL SELECT. The VIEWS section includes buttons for MIXER, SEQUENCER, RACK, FLIP, SPECTRUM ANALYZER, RECORDING METER, TOOL WINDOW, and QUICK ZOOM. The SEQUENCER section includes buttons for ARRANGE /EDIT, arrow, pencil, eraser, mute clip, snap on/off, SONG /BLOCKS, razor, glass, hand, speaker, follow playhead, Browse Patches, instrument, effect, mixer bus, UnDO, Show/Hide Browser, duplicate, audio, import audio, and ReDO. The EDIT section includes buttons for copy, paste, select all, quantize, CANCEL, DELETE, and OK. The MODIFIERS section includes buttons for Shift, Command /Control, Option /Alt, Open Song, SAVE, and Close Song. The WHEEL SELECT section includes buttons for Playhead, Tempo, Volume, and Track. A jog wheel is also present. The interface also displays a tempo of 125 BPM and various transport controls like Loop, Stop, Play, and Rec.

Use this button to "Refresh" the controls in case you are switching or re-loading layouts

To change the tempo, you can either use the jog wheel or tap on the tempo display

Press on the "L" or the "R" to move the playhead to the left or right loop position

### 3.12 Transport Controls on Instruments pages

You can switch from keyboard view to transport view in most of the instrument pages. To do that press on the patch name area as shown below. Tap again to return to keyboard view.

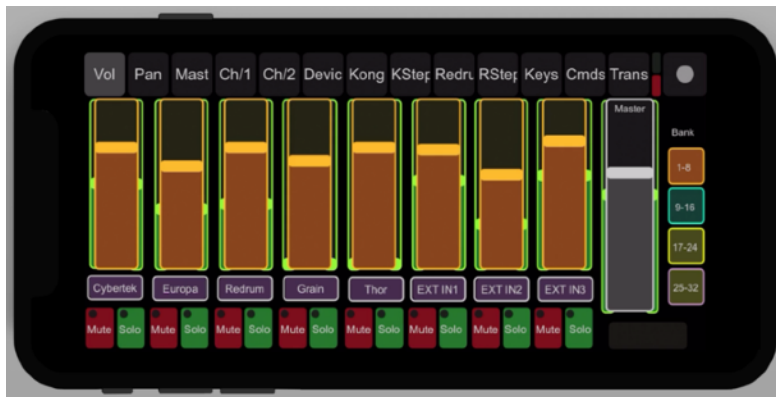
Tap in this area to cycle between Keyboard and Transport views



### 3.13 Phone layouts

In addition to the tablet templates, RetouchDuo comes with layouts specifically for the phone. Navigate to the "Templates" folder in the download, then go to the "Phones" folder to find two layouts for the phone. The first is named "RetouchDuo4.0\_SmallPhone" and works best with phones similar in size to an iPhone 8. The second is named "RetouchDuo4.0\_LargePhone" and works best with phones similar in size to an iPhone 11.

Due to the obvious difference in screen size, the phone layouts offer a condensed version of the tablet layout. However all the relevant controls are still accessible. Although you don't have the custom pages for some of the instruments, like Europa, Grain or Thor, you can still control those instruments from the "Device" page which can be used to control virtually any instrument or effect in the rack (as long there is a map for it!). You still get all the relevant controls for the Mixer, the Kong, Redrum and Thor step sequencers, a page for keycommands, and a generic page with a keyboard for playing the instruments. All those pages work in the same way as the corresponding ones on the tablet. Please refer to the previous paragraphs for more details on how to operate these pages.



**Mixer Page**



**Device Page**

You can control all instruments and effects from this page

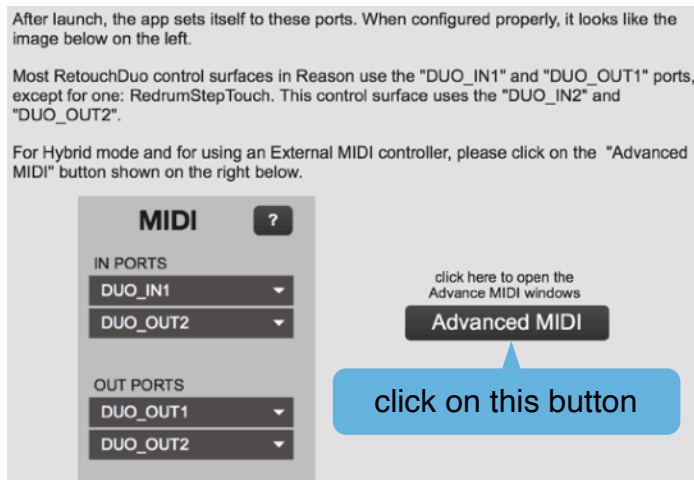
## 4. Using an external MIDI Controller

It is possible to configure an external MIDI controller to be used with RetouchDuo. From the File menu, select "Advanced MIDI" to open the set up window. First "check" the enable box then select your controller MIDI port from the pull down menu.

The RetouchDuo app can receive up to 61keys (C1- C5 octaves ) from an external controller. Octaves C2-C3 follow the settings from the "Keys" page, including Scale settings, Key, Octave, Chord and Note Repeat.

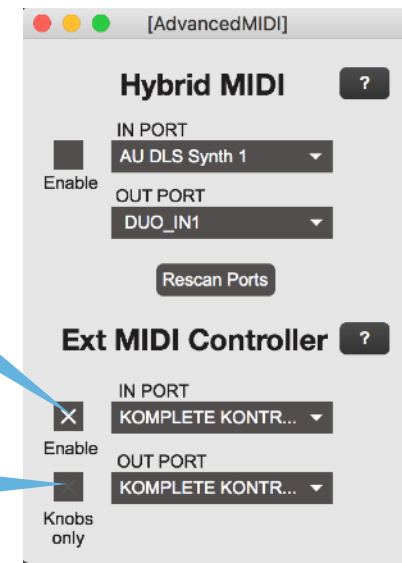
If your controller has pots or faders, you can control the rotaries on the Devices template. The rotaries respond to specific messages as shown on the next page. If your controller is capable of receiving MIDI and not just sending it, then you want to configure the OUT Port as well so that when you switch controls to another bank or to another device, there are no parameter jumps as you move the physical knobs on the MIDI controller. If you only want to use the ports or faders of your controller, then check the "Knobs only" box.

The ports of your midi controller can be saved in the "Settings.json" file, so you don't need to select them manually every time you use the app. To locate this file, if you are on Windows, locate the RetouchDuo folder, then open "resources" and "support". If you are on Mac OS, locate the RetouchDuo application bundle, right click (cmd+click) on it and select "Show Package Contents", then open the "Contents" and "Resources" folder. The "Settings.json" file can be modified in most text editors, however please make sure that the extension remain ".json" when saving it.



click on Enable and select the ports of your midi controller

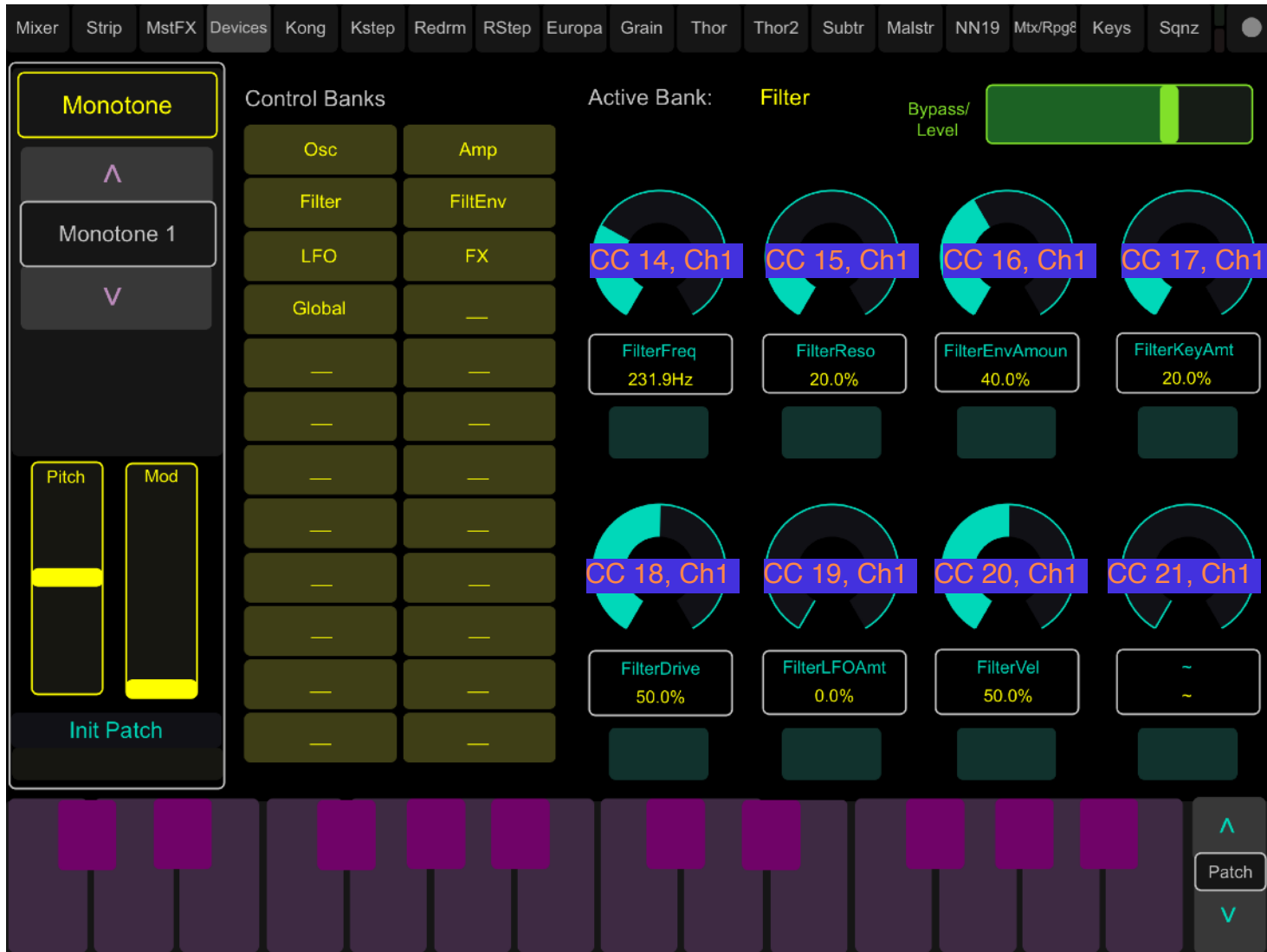
check if you only want to use the ports or faders of the controller





**Setting up an external MIDI controller**

As mentioned previously, you can control the rotaries on the RE/VST template from a connected MIDI controller. This is quite convenient as so many devices can be controlled from this page. The rotaries respond to specific messages as illustrated below. If your controller is capable of receiving MIDI and not just sending it, then you want to configure the OUT Port as well so that when you switch controls to another bank or to another device, there are no parameter jumps as you move the physical knobs on the MIDI controller.



## 5. Customizing the Templates

It is possible to customize or create new templates from the existing ones using the free TouchOSC editor which you can download from [www.hexler.net](http://www.hexler.net). However it is important to copy exactly the OSC address for each control. The majority of controls in RetouchDuo have a "custom" OSC address, so they can be copied freely. There are some exceptions, however. Controls like multifaders and multipush have an "auto" address because they won't be able to receive OSC messages otherwise.

In general, it is not recommended that you attempt to change complex pages like the Keys template. It uses complex OSC messaging to dynamically change the screen.



The screenshot shows the configuration for a control named "fader10". The color is set to "Gray". The X position is 431, W is 226, Y is 839, and H is 46. The OSC address is set to "/Thor/fparX" and the "auto" checkbox is unchecked.

Name:	fader10		
Color:	Gray		
X:	431	W:	226
Y:	839	H:	46
OSC:	<input type="checkbox"/> auto		
OSC Address:	/Thor/fparX		

**OSC custom address**



The screenshot shows the configuration for a control named "fparY". The color is set to "Gray". The X position is 431, W is 226, Y is 894, and H is 47. The OSC address is set to "/Thor/fparY" and the "auto" checkbox is checked.

Name:	fparY		
Color:	Gray		
X:	431	W:	226
Y:	894	H:	47
OSC:	<input checked="" type="checkbox"/> auto		
OSC Address:	/Thor/fparY		

**OSC auto address**