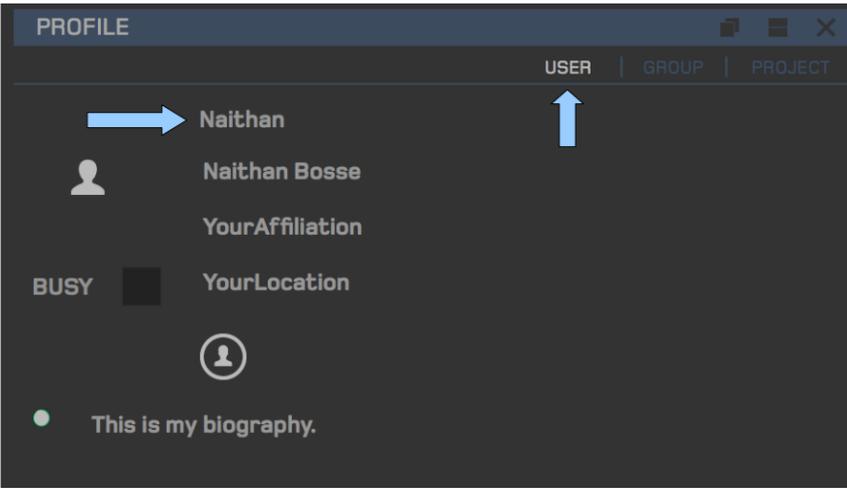
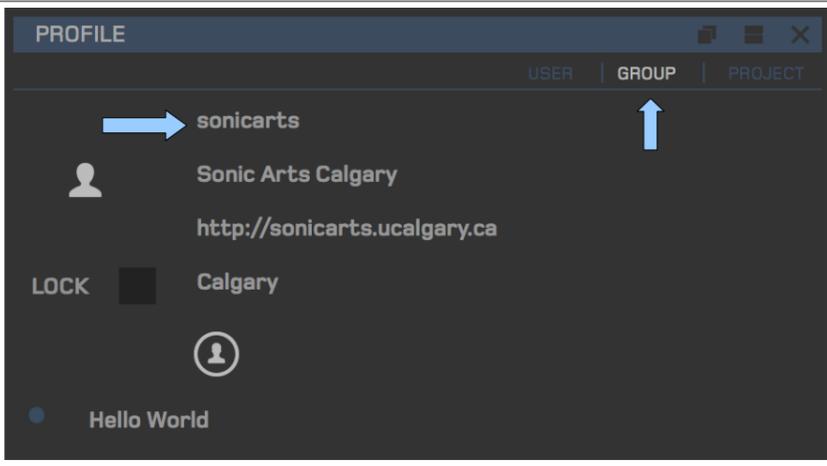
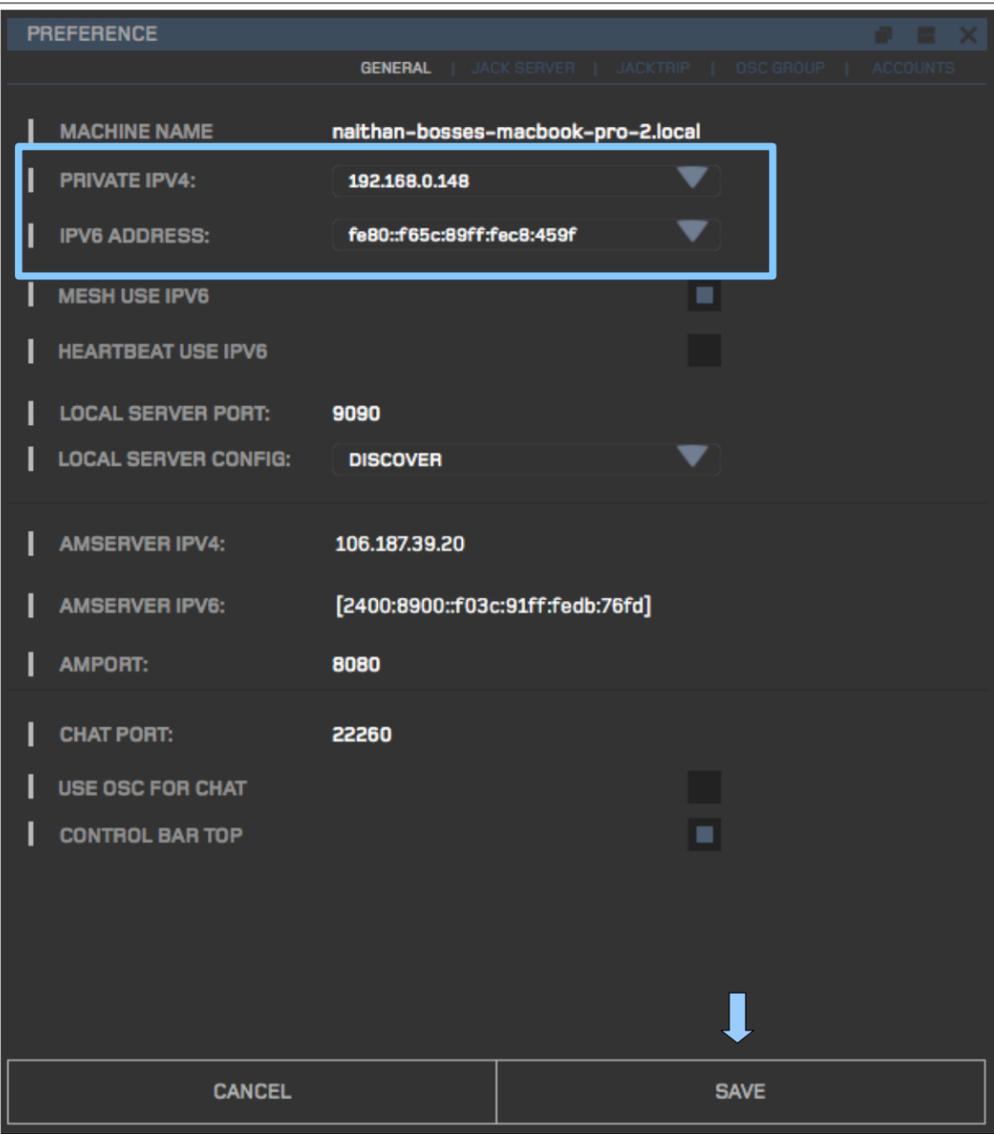
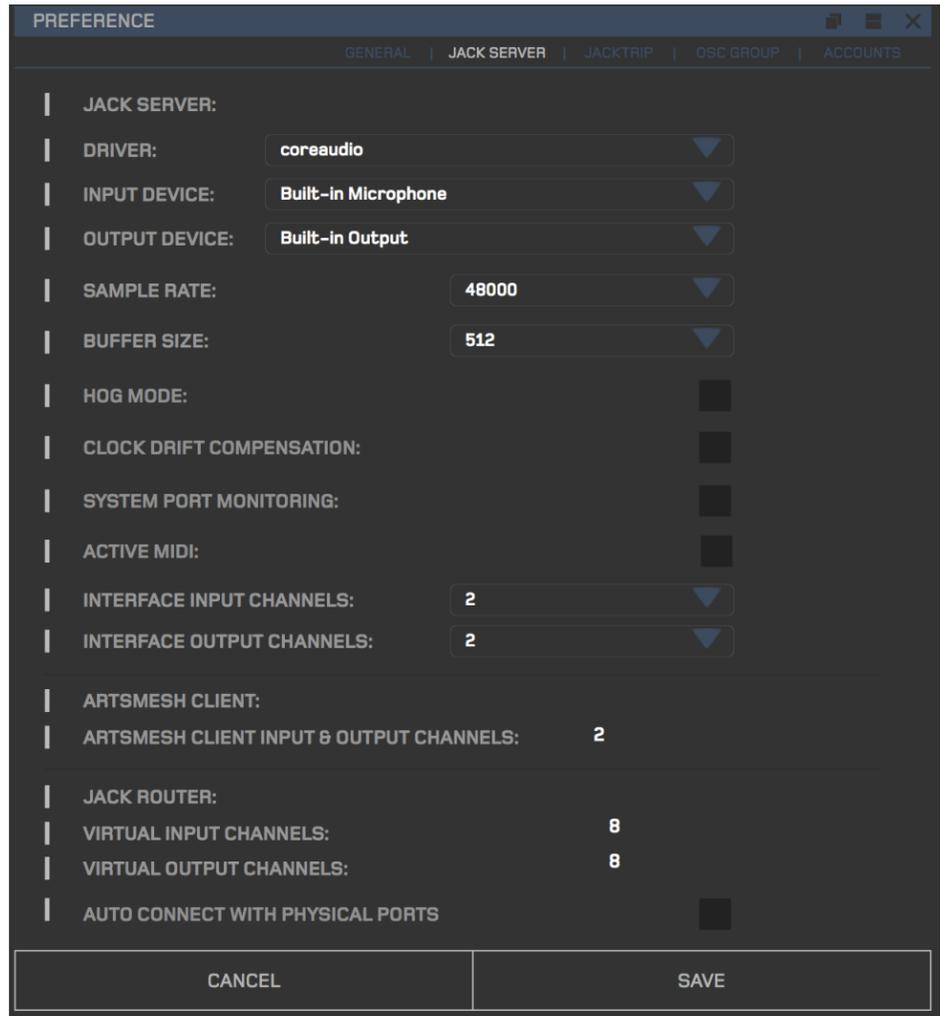


**Audio Setup – Artsmesh version**

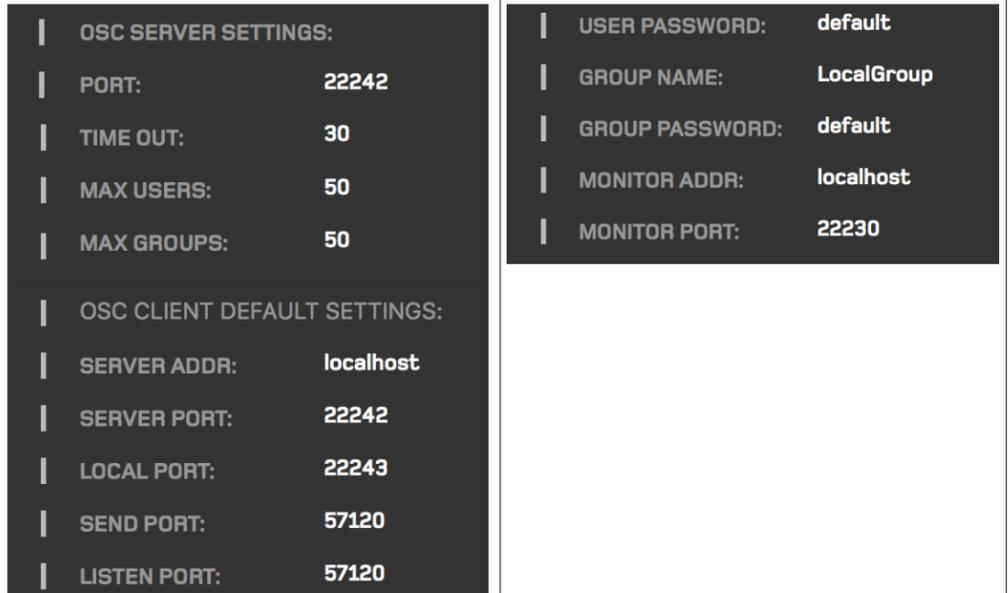
**Configuring Artsmesh**

<p>1. Open Artsmesh and open the “Profile” panel.</p>	
<p>2. Under the “user” tab, enter a profile name</p>	
<p>3. Under the “group” tab, enter a group name</p>	
<p>4. Open the “preferences” panel</p>	
<p>5. Under the “general” panel, ensure that your private IPV4 and IPV6 addresses are correct. (Check your Network Preferences under Apple-&gt;System Preferences-&gt;Network Preferences) Ensure that “Mesh Use IPV6” is enabled. If any parameters are changed, click “Save” and restart Artsmesh.</p>	

- In the “Jack Server” tab, ensure that the correct input device, output device, interface input channels, and interface output channels are correct.
- Sample rate and buffer size values should be agreed upon in advance.
- Also ensure that the virtual input and output channels are set to 12.
- After changing the settings, click “Save” and restart Artsmesh.



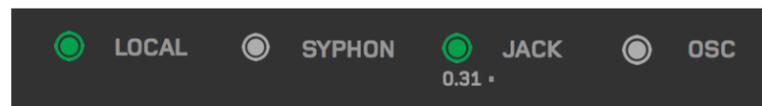
- Under the “osc group” tab, set the values to the values listed on the left. Save and restart Artsmesh.



### Creating audio connections in Artsmesh

- Before opening Artsmesh, make sure that the Max is not running and that you are connected to the correct network (Cybera).
- Open Artmesh and double check that the correct IPV4 and IPV6 addresses are set in the “general” tab of the “Preferences” panel.

- Check that the “Local” button at the top-right of the window is green. (It may remain yellow for a few moments after starting Artsmesh)



- Click the “Jack” button to activate the jack audio server and make sure it turns green.

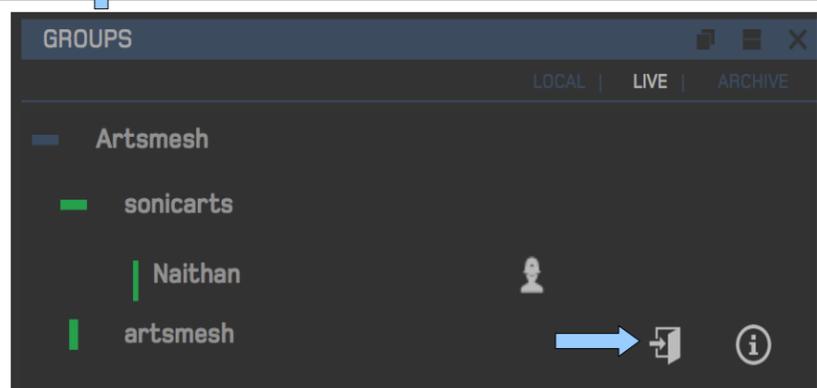
- Click the “Mesh” button at the top-left of the window.



- If you haven't already done so, start a Skype call between all locations.



- In the “groups” panel, under the “live” tab, check to see that everyone has meshed successfully. Each group name should be visible.



Whichever location has been designated “node 1” will be the main group for the session. Nodes 2 and 3 should enter the node 1 group by hovering their mouse over the node 1 group name and clicking the icon that looks like a door with an arrow pointing in.

Your group will be moved into the node 1 group.

8. Open the routing panel.



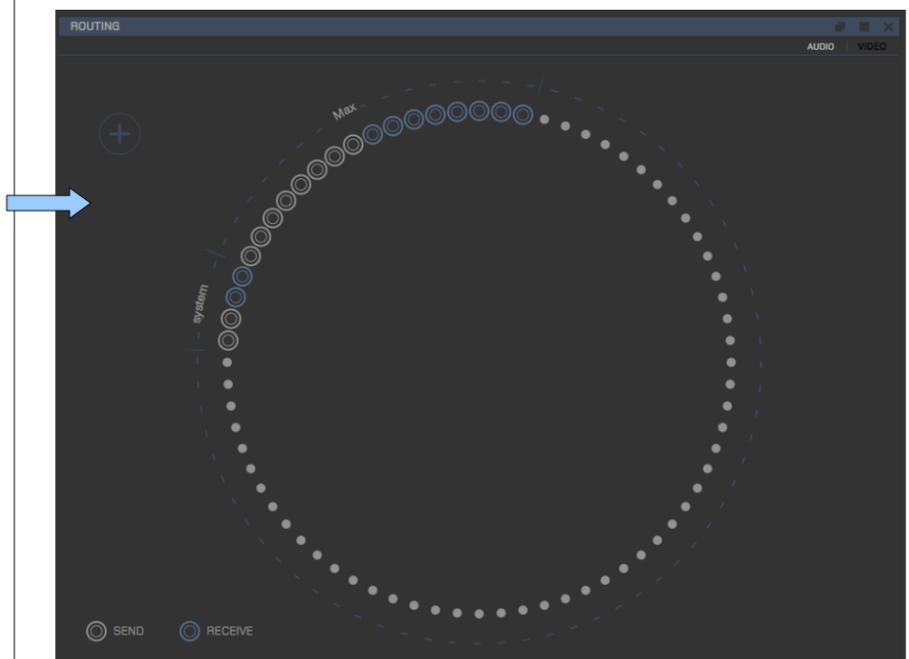
9. Open Max and follow the instructions. (Set audio in/out to Jackrouter, double check the sample rate and vector size, start audio)

10. Once audio is started in Max, the Max jacks should appear on the routing wheel with 12 inputs and 12 outputs.

11. Click the “+” button to connect audio with another node.

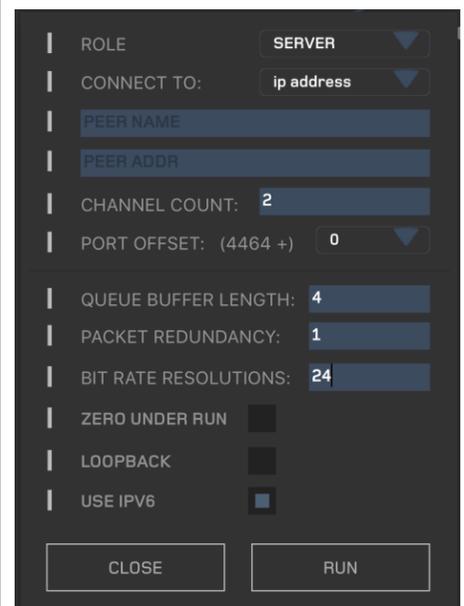
Connect audio in the following order:

1. Node 1 to node 2
2. Node 1 to node 3
3. Node 2 to node 3



12. In the pop-up connection window, select the following settings:

- |                                   |                     |
|-----------------------------------|---------------------|
| • If node 1:                      | <b>Role:</b> Server |
| • If node 2 connecting to node 1: | <b>Role:</b> Client |
| • If node 2 connecting to node 3: | <b>Role:</b> Server |
| • If node 3:                      | <b>Role:</b> Client |



• **Connect to:** [Select the appropriate group name]  
 (Note: if the only option is 'ip address', see the troubleshooting guide)

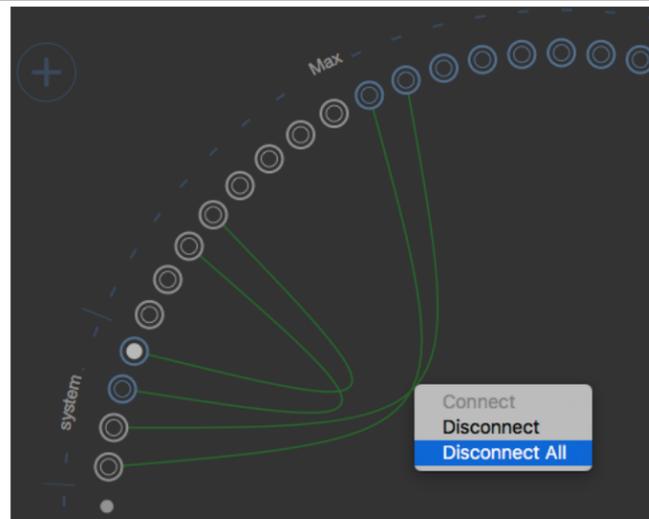
- **Channel count:** 2
- **Port offset:** any available at BOTH sites
- **Queue buffer length:** 4
- **Packet redundancy:** 1
- **Bit rate resolution:** 24
- **Zero under run:** disabled
- **Loopback:** disabled
- **Use IPV6:** enabled\*

Wait until both you and the connecting party have entered all the settings and then hit “Run”

13. If the connection is successful, green cables will appear on the routing wheel, connecting your audio system to the remote location.

*If your mic volume is up, feedback could occur!!*

Right-click one of the cables and click “disconnect all”



14. Once all the network connections are created, each node will create the following audio connections:

Node 1:	Node 2:	Node 3:
System receive 1-n => Max send 1-n	System receive 1-n => Max send 1-n	System receive 1-n => Max send 1-n
Max receive 1-8 => System send 1-8	Max receive 1-8 => System send 1-8	Max receive 1-8 => System send 1-8
Max receive 9-10 => Node 2 send 1-2	Max receive 9-10 => Node 1 send 1-2	Max receive 9-10 => Node 1 send 1-2
Max receive 11-12 => Node 3 send 1-2	Max receive 11-12 => Node 3 send 1-2	Max receive 11-12 => Node 2 send 1-2
Node 2 receive 1-2 => Max send 5-6	Node 1 receive 1-2 => Max send 5-6	Node 1 receive 1-2 => Max send 5-6
Node 3 receive 1-2 => Max send 7-8	Node 3 receive 1-2 => Max send 7-8	Node 2 receive 1-2 => Max send 7-8

To make a connection:

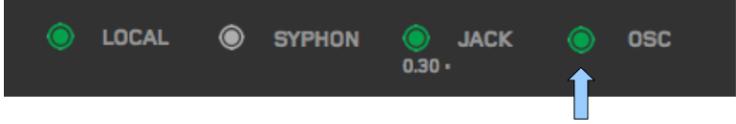
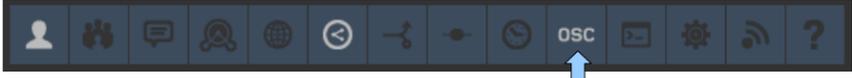
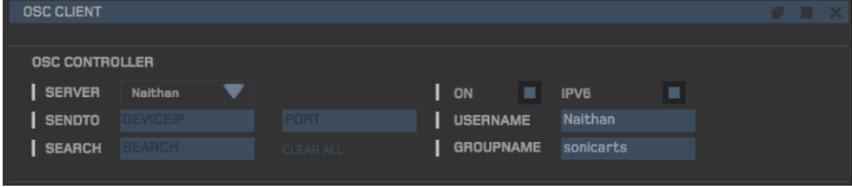
1. Click the appropriate receive jack on the routing wheel.
2. Right-click the corresponding send and select “connect”.

Note: Sends and receives are numbered clockwise. (Sends = white, receives = blue)

15. Follow the remaining sound-check instructions in Max.

16. Mute Skype during performance.

## Control-rate messaging in Artsmesh

1. Node 1 activates the OSC server by clicking the OSC button on the top-right of the window.	
2. Navigate to the OSC panel	
3. In the Server drop-down menu, select Node 1's profile name.	
4. OSC messages can be sent over IPV4 or IPV6. Decide which protocol you will use in advance and set the IPV6 button accordingly.	
5. Click On.	

## Common problems

*The Jack button turns yellow instead of green*

This indicates that the Jack server is not started correctly. This is mostly likely due to incorrect sample rate or buffer size settings. Turn off the the Jack button and navigate to the Jack Server tab in the Preferences panel. Reset the sample rate and buffer size values, click save, and restart Artsmesh. If the problem is not resolved, do a spotlight search for the JackPilot application. In the JackPilot menu, open Preferences and check that all the parameters match the preferences in Artsmesh. Change any mis-matched preferences then save and quit both applications.

*After turning on Mesh, the other groups don't appear in the Live tab of the groups panel.*

In the general tab of the preferences panel, check if the “Mesh using IPV6” button is enabled. Each group should have the same value for this parameter. Change the value to match the other groups, click save, and restart Artsmesh.

*Max crashes when starting the audio*

The sample rate and/or signal vector size probably don't match the Jacktrip settings.