

Wormhole2



Wormhole2 (v2.0)

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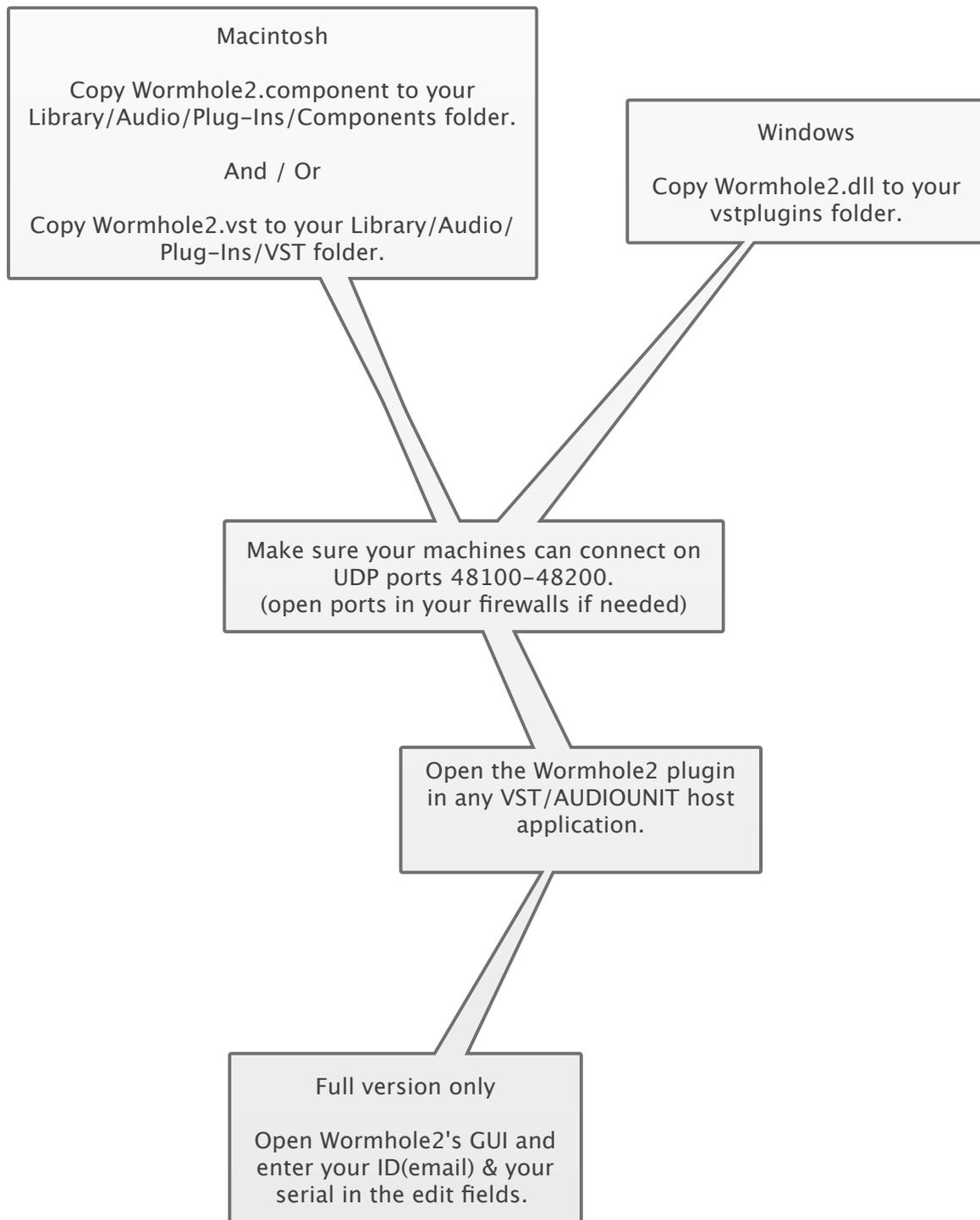
Credits:

Adrian Pflugshaupt - Coding
Cris 'atariboy' Pearson - Graphics and UI Design
Keith 'SongCarver' Lang - UI Design

VST plugin technology by Steinberg.
AU plugin technology by Apple.

This manual was made with our very own 'Comic Life.' app.
Check it out at plasq.com/comiclife

Installing Wormhole2

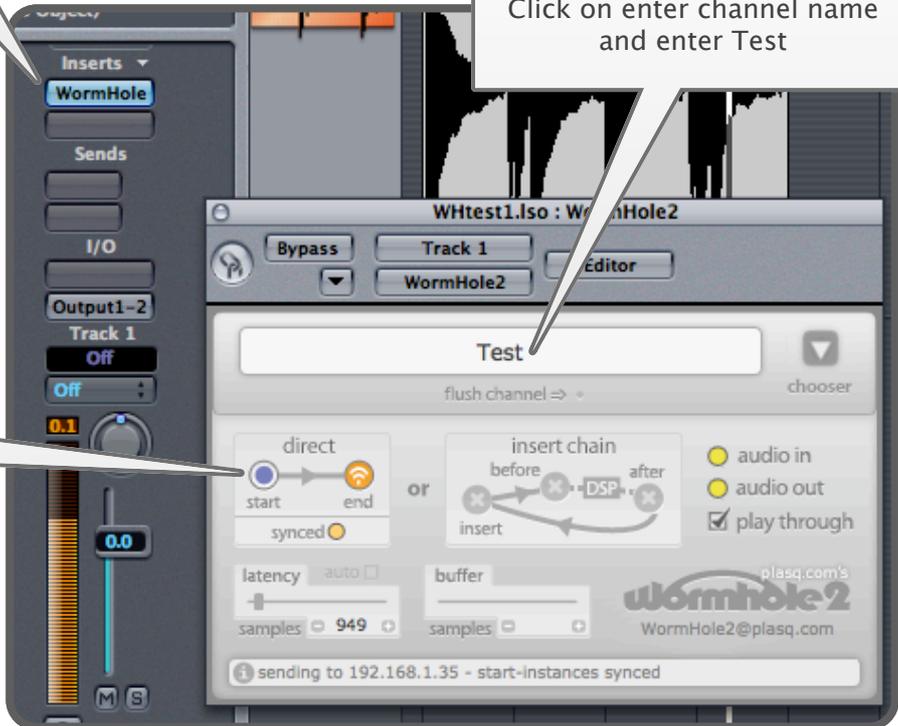


Direct connection

1 Insert Wormhole2

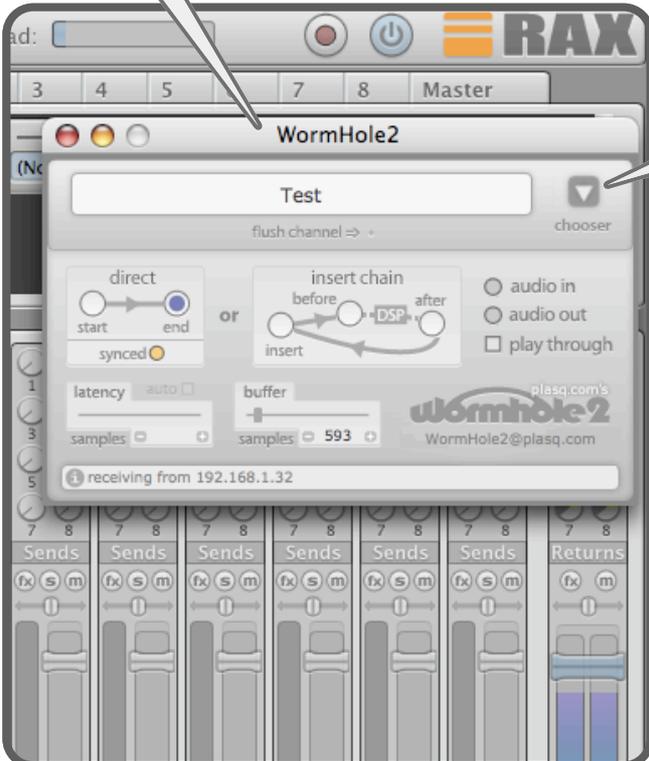
2 Click on enter channel name and enter Test

3 Click on start to make this the starting point of the connection.



4 Open an instance of Wormhole2 on the target machine.

5 Press the triangle and choose test - end in the chooser popup.



Notes:

- If the info display shows **the host is not feeding audio to Wormhole2**, feed some audio to the plug. (using silent audio or a low overhead synth)
- Once the connection is complete, adjust the buffer slider on the receiver side to lower the latency of the connection. This latency can be made up for manually by moving the latency slider on the sending instance

Insert Loop

1 Open the plugin the loop is to be created for. Here: Buzz RoomReverb

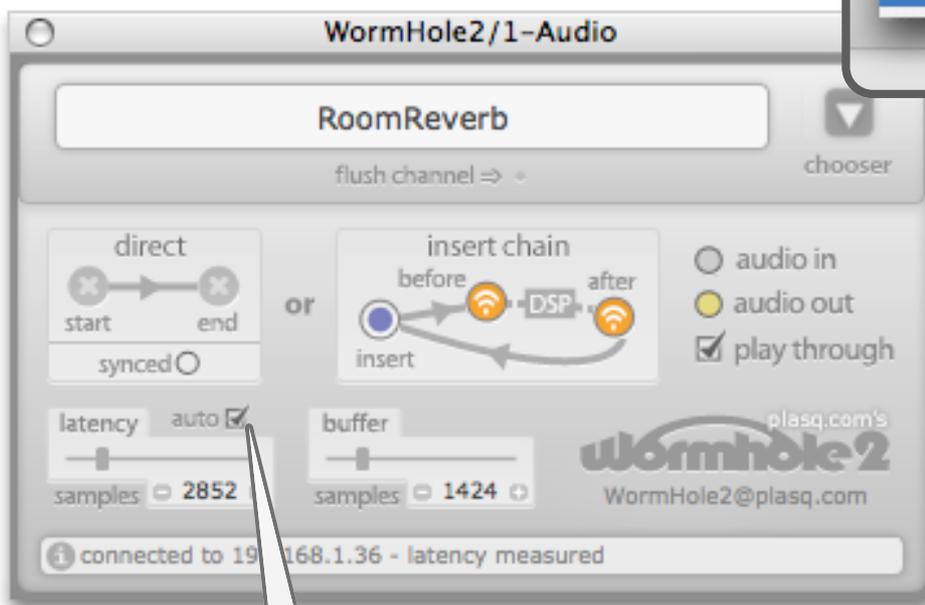
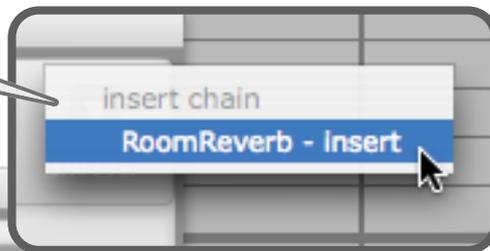


2 Place a Wormhole2 before the plugin in the audio chain, name it RoomReverb.

Select before mode. **3**

4 Place a Wormhole2 behind the plug, choose roomreverb-after from the popup.

5 On the other machine select reverb-insert in the chooser popup.



6 Click on auto to tell Wormhole2 to measure the latency and to make up for it.

Notes:

- Latency measurement & compensation can only work in hosts supporting delay compensation.
- Some types of effects might interfere with latency measurement (especially delays).

Multi-channel direct connection

1 Insert Wormhole2 on the first channel, name it **Channel -1**.

2 Open as many instances as you need, they will automatically be named.

3 If you want the channels to be sample-accurately synced, activate **Sync** on all instances.

4 Open a first Wormhole2 on the target machine and use the chooser to select **Channel -1 -end**.

5 Now open more instances on other channels. Wormhole2 will automatically set them up.

6 For sample-accurate sync, activate **sync** on all instances.

Notes:

- The end instances have to be fed with audio by the host.
- Activated sync can result in transfer problems if the host does not send Wormhole2 accurate sample-position information!

Wormhole Farm

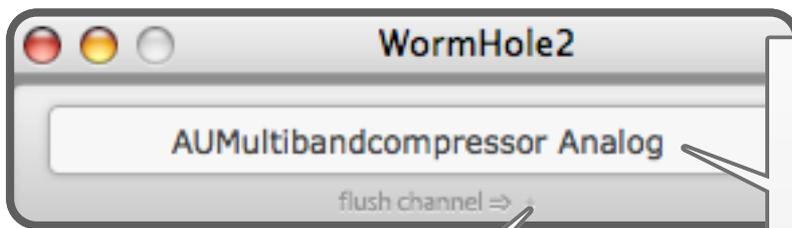
Using the insert loop mode of Wormhole2, you can create a set of encapsulated plugins on your network. Place plugins between **before & after** instances of Wormhole2 and give the channels nice names. In this example three audio-units from mac os x and two built-in effects of ableton live are set up that way.



Once set up properly, these plugins can be accessed from any host on the network by just opening an instance of wh2 and selecting the name in the chooser popup



Details explained



The channel name field is used to define or show the channel this instance is currently placed on.

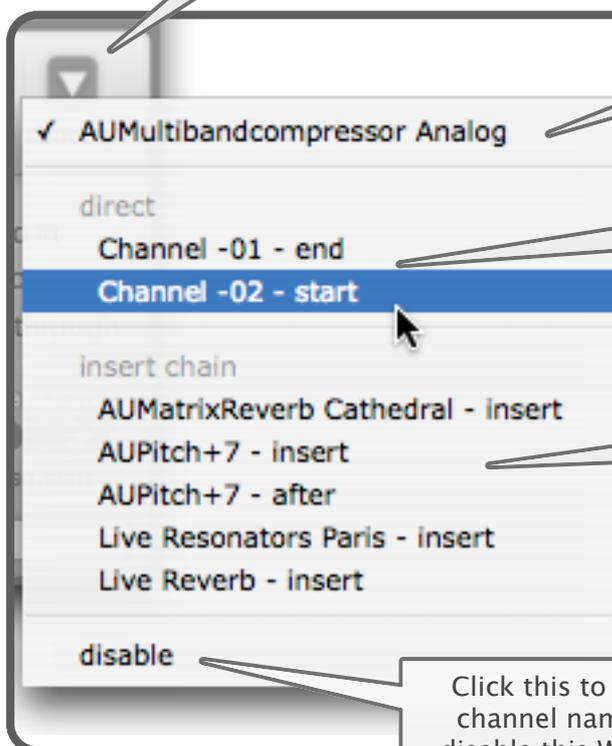
You only need to define a channel name in the first instance and can then access it from the popup in other instances.

If you define a channel name with a "-" and a number after that in it (example: **Channel -1**), the next instances of Wormhole2 will automatically be named with ascending numbers.

The flush channel button deactivates all the other Wormhole2 instances present on the current channel.

It is deliberately small so you don't press this accidentally :)

Pressing this triangle opens the chooser popup menu. it lets you choose from all available channel-name/function options.



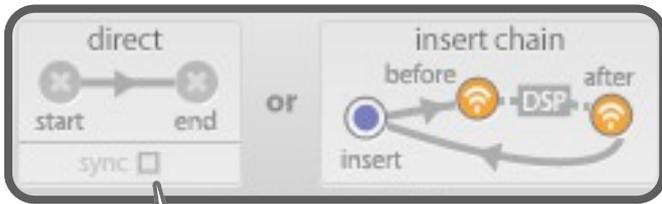
This Wormhole2 is currently part of channel: "AUMultibandcompressor Analog"

These are the incomplected direct channel functions available.

The uncomplete insert chain channel options

Click this to erase the channel name and to disable this Wormhole2 instance.

In wh2 there are two types of channels:
direct channels (a->b) and **insert chain** channels (a->b->a).
 The five mode buttons let you choose what type of channel wh2 is on and what function it takes on that channel.
 They also provide you with information about what is going



This Wormhole2 is the **start and end-point** of a completed **insert-chain** loop. Both other functions (**before** and **after**) are taken by other Wormhole2's.
Start & end cannot be clicked, as the channel is in insert chain mode. You would have to flush the channel in order to access them.

Sync switch:
 If this is activated, wormhole uses the sample-position provided by the host to align channels. This is needed to transfer multiple channels in sample-accurate sync. If the host provides inaccurate data, the connection will be lost!
 Generally spoken: if you don't know what to do with it, leave it off.

The buttons have 4 states:

-  Selectable
-  The function **this** Wormhole2 is providing.
-  This function is taken by another Wormhole2 on this channel.
-  Due to the channel mode (**direct** vs. **insert chain**), this function can't currently be selected

These leds show the level of audio entering and leaving Wormhole2 locally.



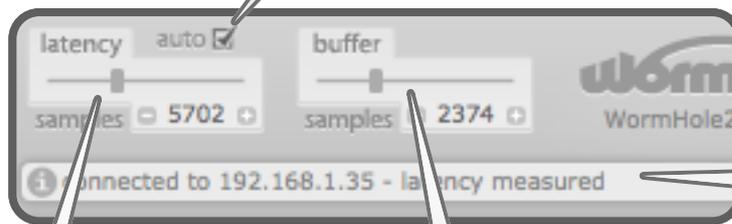
Activate playthrough to mix the incoming audio with the received audio.

Click the Wormhole2 logo to see a nice about screen. Below it, your email address is displayed.

Auto is only available if Wormhole2 is in insert mode.

If activated, a pulse is sent through the insert loop once the channel is complete. Wormhole2 then measures the time it takes for the pulse to return and sets the latency slider to that value.

After that procedure, the latency of the loop is measured (accurate to 1 sample) and the delay is compensated for (if the host supports delay compensation).



The info display shows information about the current connections and error messages.

The latency slider controls how many samples of latency Wormhole2 reports to the host.

In cases of sample-accurate sync, the slider controls all synced instances of Wormhole2.

If you use the auto latency measurement feature, Wormhole2 will move the latency slider for you. Do not touch it if you want to keep things in sync!

The buffer slider controls Wormhole2's internal buffer. This buffer is used to collect the network packets. The less traffic & the better network connection you have, the lower the buffer setting can be while still having a stable audio connection.

If you have multiple synced instances of wormhole connection the same machines, all their buffer sliders will be linked together.

As most hosts cannot dynamically adjust plugin latency, wormhole2 always reports 32768 samples of latency and uses a delay to generate the real value - unless the latency slider is set to 0.

If Wormhole2 is used in a realtime situation or in a host without delay compensation, the slider should stay at 0. Otherwise a latency of 32768 samples results.

In a host without delay compensation, an unconnected instance of Wormhole2 can be used to generate the same amount of latency!

Thanks for using
Wormhole2!

If you still have any further
questions, then pick our or
other user's brains at our
forums: plasq.com/forums



*PLASQY - LORD OF PLASQ
(YES, HE IS A SOCK
PUPPET... OK?)*