Many FlexRadio 6000-series users who prefer Apple's Mac computers have been in the unenviable situation of having to work around several issues to operate using digital modes. Recently, however, things have improved markedly. DogPark SDR is a capable client for OS X. WSJT-X and FLDIGI both sport Mac versions. The only gotcha left was getting audio between apps without an external device. DAX envy is a horrible thing!

Here's how to use DogPark SDR (dogparksoftware.com) with Sound Siphon (staticz.com) and various digital applications, including FLDIGI (w1hkj.com) and WSJT-X (physics.princeton.edu/pulsar/K1JT/wsjtx.html).
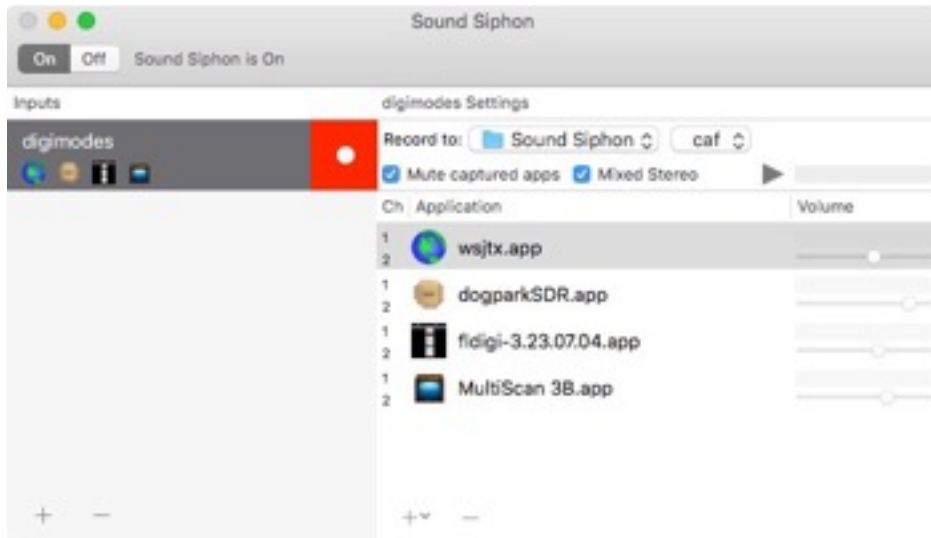
While not as flexible as DAX, or Virtual Audio Cable for Windows, Sound Siphon provides an extremely efficient, clean transfer of audio from one OS X application to another. You may wish to download the demo version to get the feel of the application, but I strongly recommend the paid version for full functionality and bandwidth.

This guide is based on OS X version 10.11.3, with DPSDR 1.02b7, and uses Sound Siphon 2.02. Other versions should work, but I have not tested them.

Before starting, exit all running applications and install Sound Siphon. Reboot to complete the installation process. At this point, do not start your other applications (DogPark SDR, etc.).

Set Up Sound Siphon

After installation, Sound Siphon creates two devices, "Sound Siphon In" and "Sound Siphon Out." Since we are sharing audio two ways, we will need to create another input.

As you can see, I have created (using the "+" key in the lower left) a device called "digimodes." You can call it anything you want, of course.

Once the device is created, you must add the applications you want it to work with. This is easily accomplished using the "+" button in the right hand pane. A Finder window opens, allowing you to navigate to and select your digital apps.

After you've added the apps, make sure "Mute Captured Apps" and "Mixed Stereo" are <u>both</u> checked.

System Audio Preferences

In your OS X System Preferences menu, under "Audio", select "Sound Siphon Out" as your Output device, and "Digimodes" (or whatever you named your input) as the Input device. In the Sound Effects tab, please ensure you are using a local device (e.g., Line Out or Internal Speakers) and NOT Sound Siphon. We don't need your system sounds on the air.
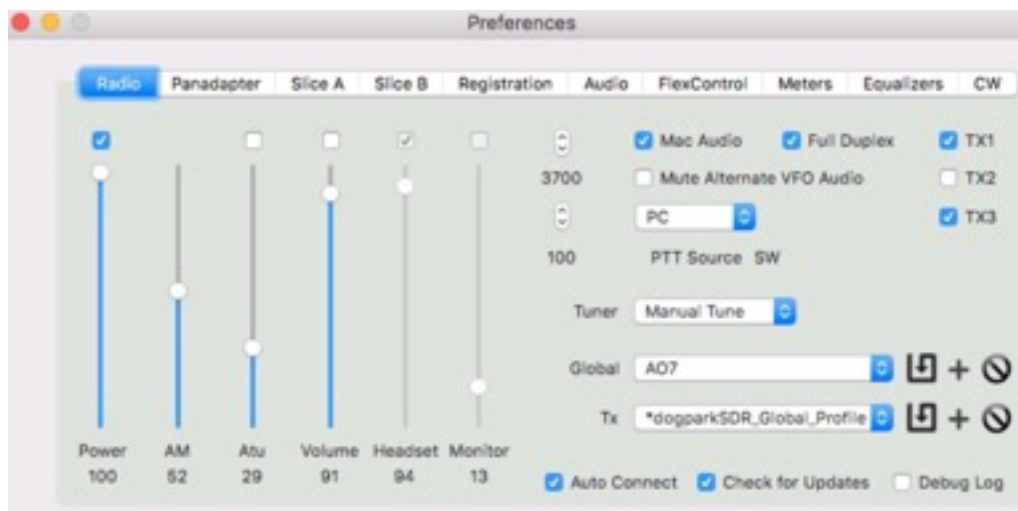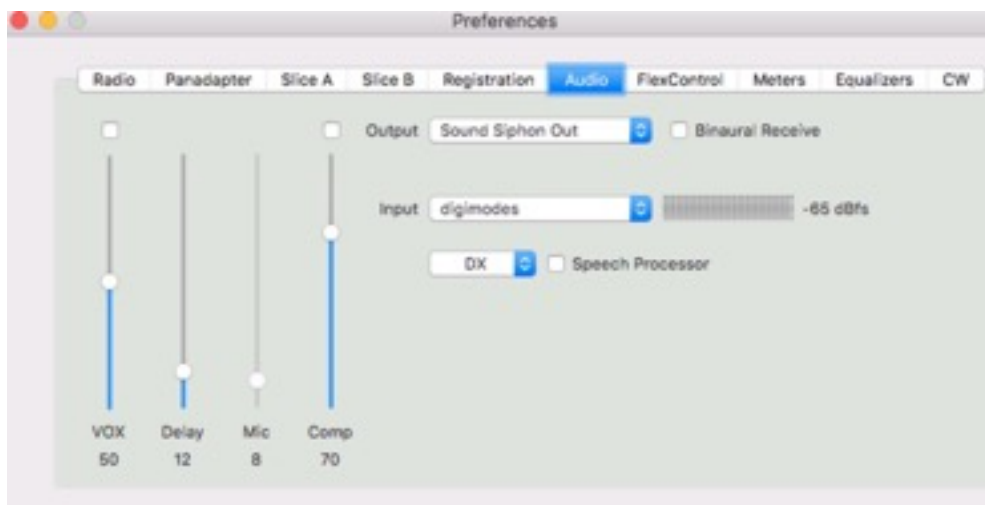
DogPark SDR

Launch DogPark SDR, ensuring your Flex 6000 is on-line and ready to go. For protection against accidental transmissions, you may wish to switch to a dummy load until we're done setting up.

Open the Preference pane in DPSDR. In the Radio tab, select "Mac Audio", and observe the source pulldown changes to "PC." If it doesn't, you may need to change it. The levels and other settings shown here are not necessary to change. Your installation and style will differ.

In the Audio tab, The "Input" and "Output" pulldowns are now active. Set them to use your two channels of Sound Siphon. Again, the various levels are not critical at this point.
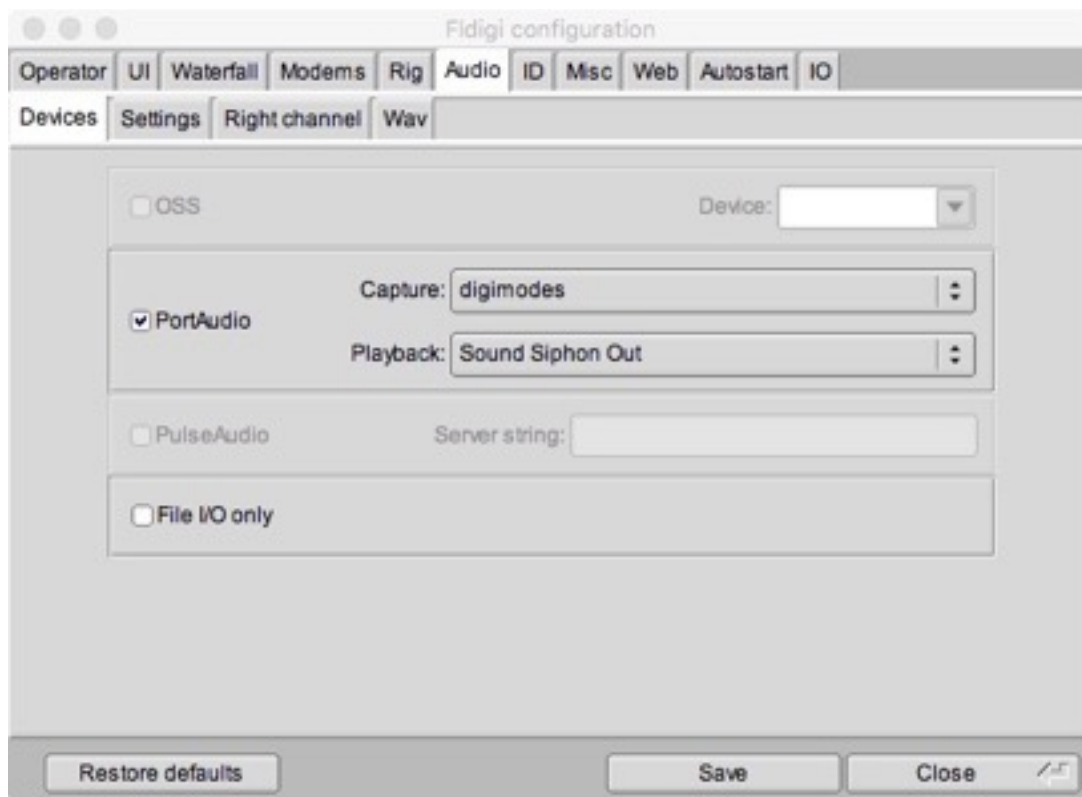

This completes the integration of Sound Siphon and DogPark SDR. You're almost done! Remember that you will need to select "Mac Audio" when operating digital modes and de-select it for voice.

Configuring FLDIGI

Launch FLDIGI and navigate to the "Configure" menu, then select "Sound Card." Change the input and output options to your Sound Siphon channels. No other changes are required.
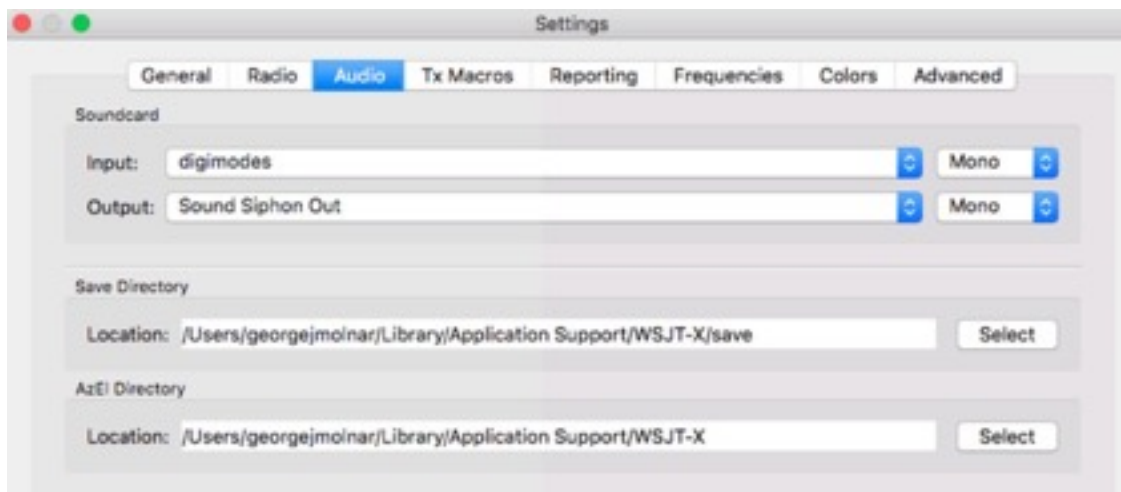

Adjust "Vol" and "Agc-T" levels in the DPSDR "Slice" tab appropriate to your operation.

Note that since FLDIGI doesn't interface with the Flex 6000 series directly, you will need to select VOX operation in DogPark SDR to enable transmission.

WSJT-X Setup

WSJT-X is likewise simple to configure. After launching the application, select the "WSJT-X" menu, then "Preferences." Then open the "Audio" tab.
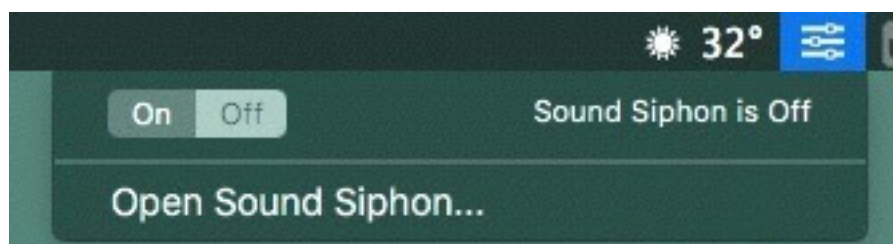

You may use VOX for transmission here as well, but I recommend JT-Bridge (jt-bridge.eller.nu) as a helper app for DogPark's excellent MacLoggerDX. This will enable frequency control and PTT via CAT.

Restart WSJT-X any time you change sound card settings.

Important

Go ahead and reboot after all these changes. It's not a bad habit to get into.

Once you do, select Sound Siphon from the desktop Status Menu (upper right corner of your screen). Then turn it off. This does not deactivate the virtual devices; rather it allows for your system sounds to be passed without interruption.
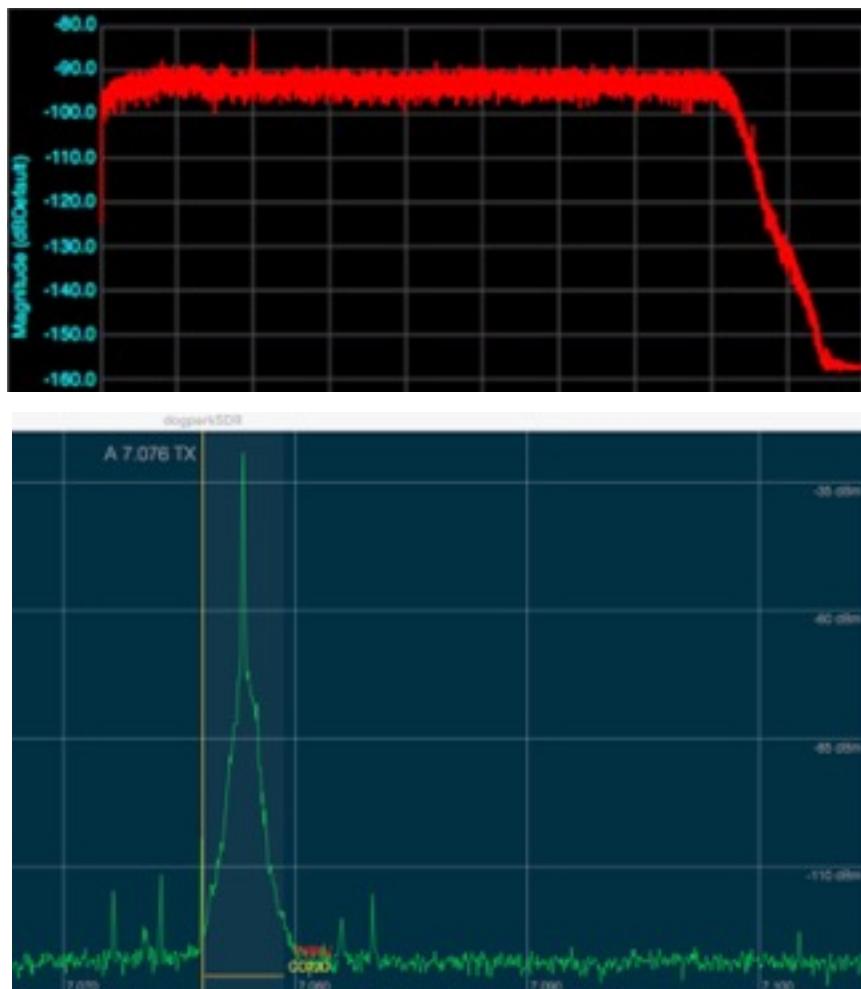

If you want to make changes (say, add another app) you will need to turn Sound Siphon back "on."

Results

Here are a couple of shots showing how clean the Flex 6000, Sound Siphon, DPSDR, and WSJT-X are working together. The red trace is a receiver slice set for 100 to 5000 Hz on a quiet band. The DPSDR window is a shot of WSJT-X in "Tune" mode with the Flex at 100 watts.

Good Luck!

I hope this helps folks out. It took me a little while to get things square, so writing it all down sure helped. Many thanks to Don Agro from DogPark Software, for his support.

Feel free to drop me a line with questions or suggestions for improvement. KF2T@ARRL.NET

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