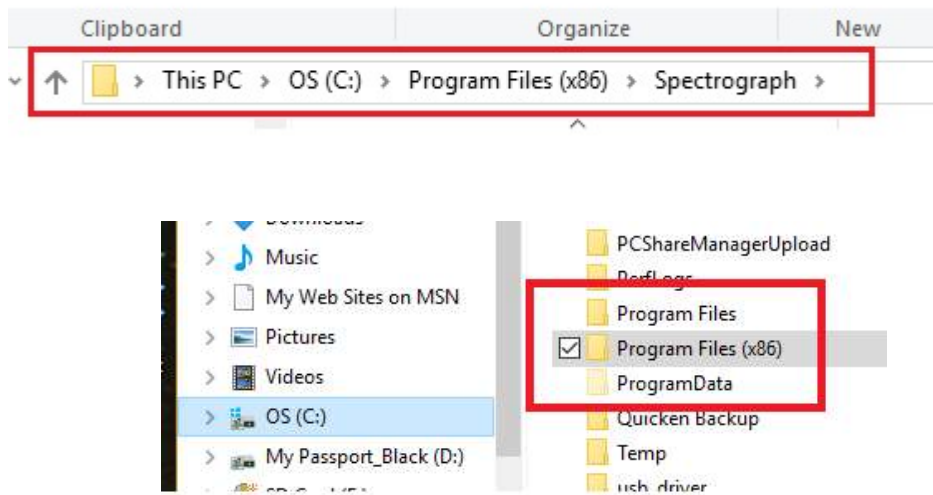


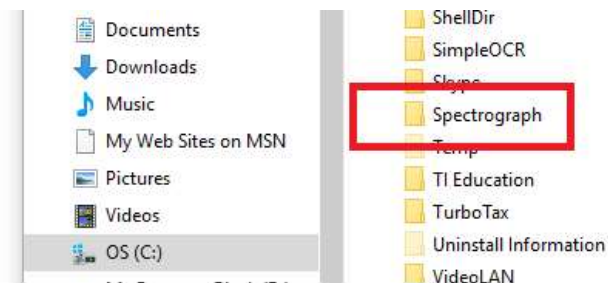
SDRPlay2RSS Instructions

15 March 2017

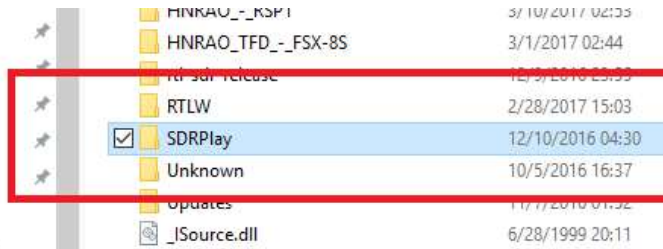
1. Make sure drivers are installed.
 - a. This can be accomplished in several ways. The easiest way is to download and install HDSDR – version 2.76 from the SDRPlay website. <http://www.sdrplay.com/downloads/>
 - b. Once downloaded, run the install and let the program install.
 - i. **Follow the install instructions. Do not have the RSP1 connected to the computer until the install routine tells you to connect it.**
 - c. **YOU DO NOT NEED THIS PROGRAM TO RUN THE SDRPlay2RSS INTERFACE. THE SOLE PURPOSE OF THIS PROCEDURE IS TO GET THE PROPER DRIVERS INSTALLED.**
2. The next step is to do the following:
 - a. Under Program Files (x86)



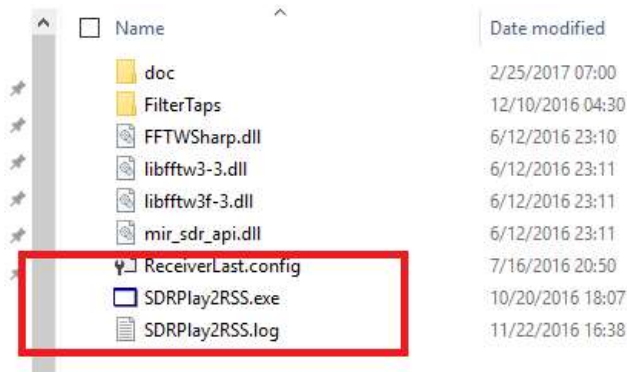
3. Find the Spectrograph folder



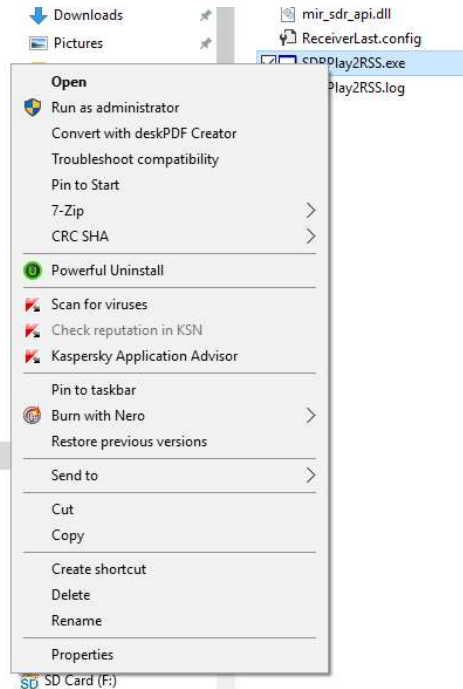
4. Open the Spectrograph folder
 - a. Look for the folder called **SDRPlay**



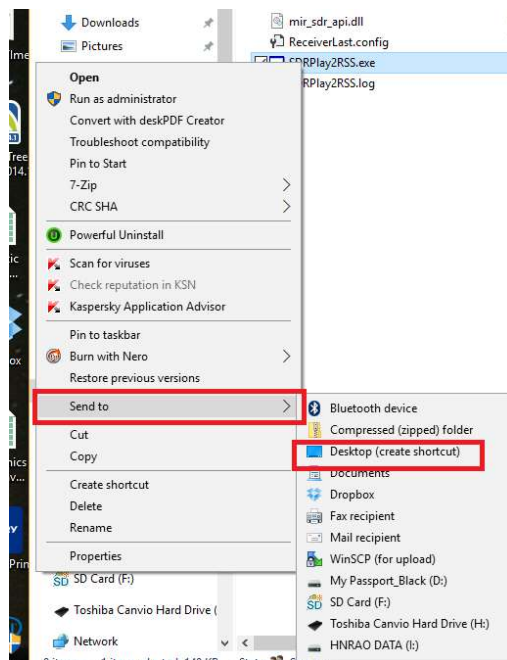
5. Open the SDRPlay folder
 - a. In the folder is a program called SDRPlay2RSS.exe.
 - b. We're going to put that program on the desktop or taskbar so you can get access to it easily in the future.



6. Right click on **SDRPlay2RSS.exe**
 - a. This pop up window will show up.



7. We want to move this to the desktop or the taskbar so it's easier to get to in the future.
 - a. Depending on your operating system, you can do it different ways. To send it to the desktop, select **Send to -> Desktop (create shortcut)**



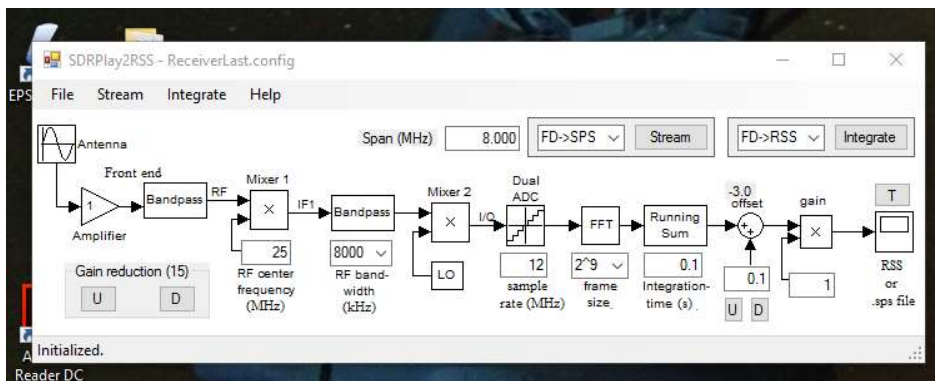
b. Or, you can pin it to your taskbar



8. You'll need this program to run before it will let the RSP1 talk to RSS.

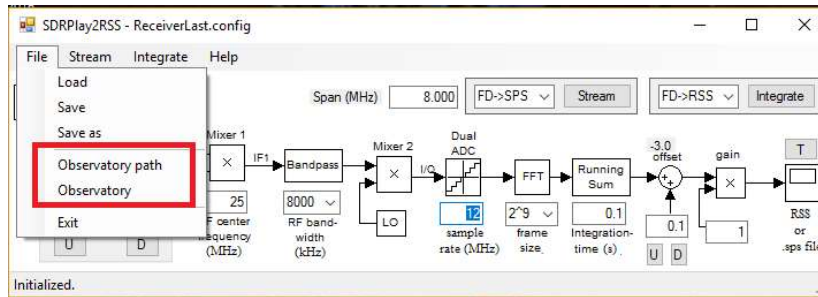
9. Double click **SDRPlay2RSS**

a. Once it's running, this window should open



10. You will need to make a few more changes.

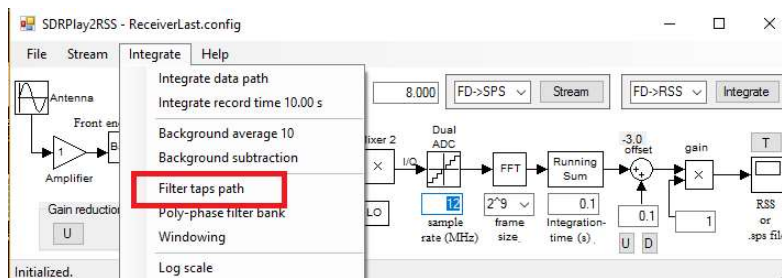
- a. Under FILE, you will need to set the Observatory path, and Observatory.



- b. Observatory path is the Spectrograph folder
- c. Observatory is your observatory information.

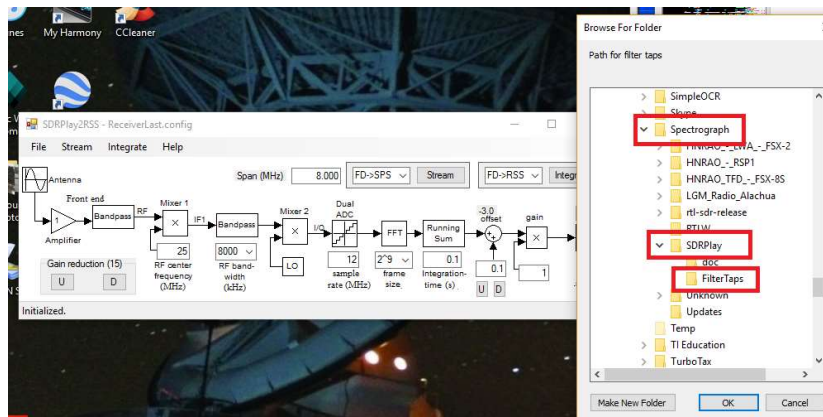
11. Next, to the right of FILE is STREAM. To the right of that is INTEGRATE

- a. Click on INTEGRATE and a pull-down menu will appear

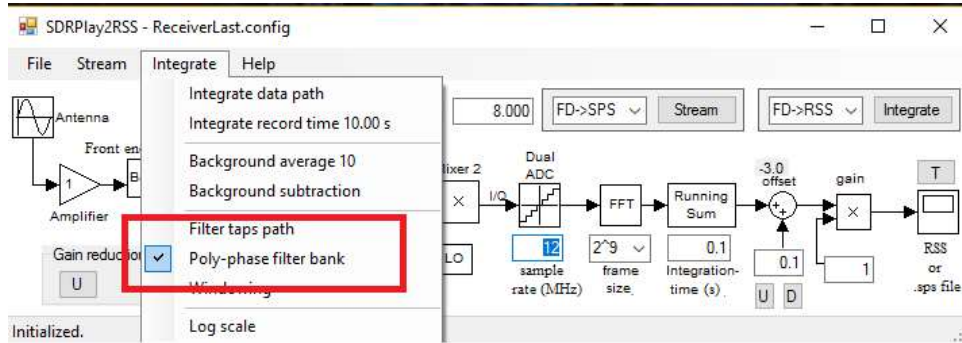


12. Select **Filter taps path**

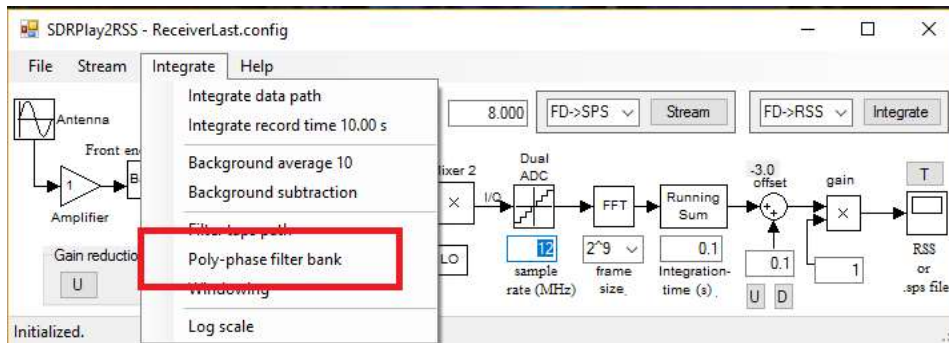
- a. **Navigate back to the Spectrograph folder.**
 - i. **Open the SDRPlay folder**
 - ii. **In that folder is another folder called Filter Taps.**
 - iii. **Select that folder, then click OK**



13. Deselect **Poly-Phase Filter Bank**



- a. If there is a check box in front of this, deselect it.



14. Set up SDRPlay

a. I found the best settings are:

- i. Gain reduction = 0
- ii. Center Frequency (whatever you want)
- iii. RF Bandwidth = 8 MHz
- iv. Sample rate = 12 MHz
- v. FFT = 2^9

1. Different monitors/computers this may be different. This changes the size of the RSS window on your computer. If RSS is displaying to large, change this to 2^8 . If it's too small, change it to 2^{10} . You'll need to adjust this for the best fit for your monitor.

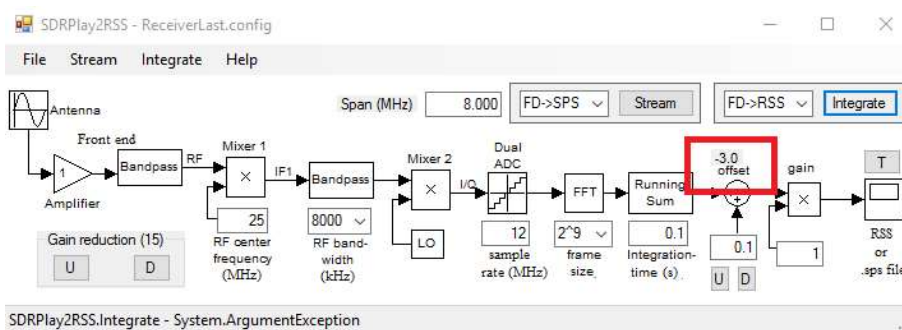
vi. Running Sum = 0.1

1. This is the integration time. The smaller the number, the faster the data will be taken and the display will move across the screen. The larger the number, the longer the integration time. For example, to do high speed S-bursts, you'd set it to something like 0.005 (seconds). If you were trying to record CassA scintillation, you'd set it for something like 10 (seconds). You set that value to whatever integration time you want. A typical value for Jupiter would be 0.1 (s) or 0.15 (s).

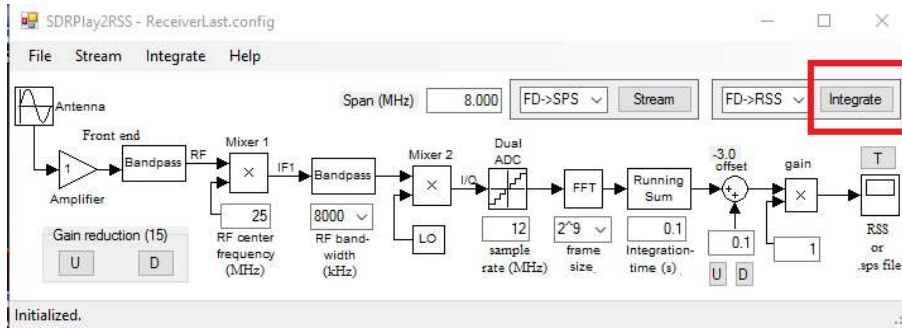
a. Note: for the very fast data rate, a very fast computer will be needed.

vii. Offset = 0.0 (adjust the U and D to make the change). The change will show up above the circle.

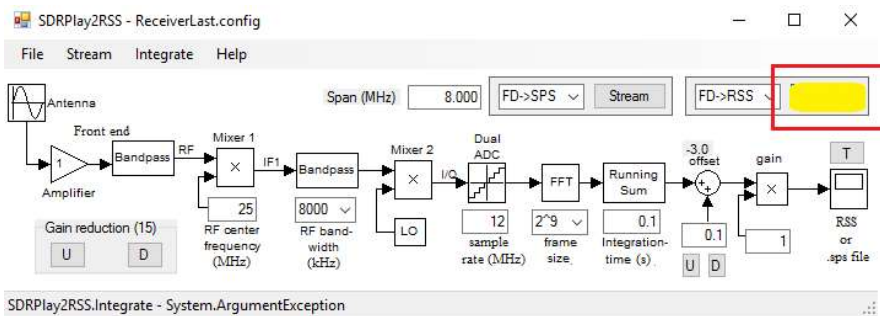
viii. Gain = 1



- b. Next, you'll need to turn on the interface.
- c. **This must be done BEFORE starting RSS.**
- d. Click on the Integrate button.



e. The **integrate** button should turn **yellow**.



15. Once this has turned yellow, it's ready to talk to RSS.

- a. Make sure RSS is ready to take data from the RSP1
 - i. Make sure RSS is set for the SDRPlay unit
 - ii.

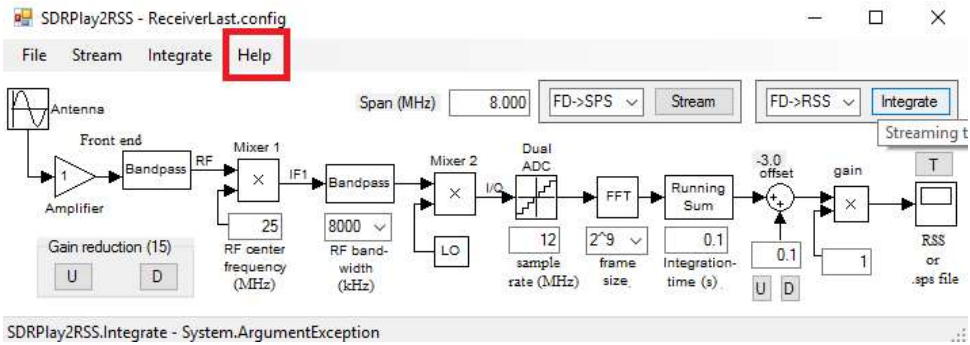


16. If the SDRPlay2RSS Integrate box is yellow and RSS is set for SDRPlay, then everything so work.

17. To make any changes

- a. **you must FIRST stop RSS.**
- b. **Then click the Integrate button to turn it off.**
- c. **Then make the changes you want.**
- d. **Then click the Integrate button to turn it back on**
- e. **Restart RSS.**

18. For detailed instructions on what each setting does, read the instructions on how to use the SDRPlay interface. Go to the HELP menu.



19. Select Online Help

a. Select Online Help F1

b. That will take you to the descriptions

i. <http://myplace.frontier.com/~nathan56/SDRPlay2RSS/doc/SDRPlay2RSS.html>

20. These instructions will tell you what each of the adjustments do.

