

How to Feed Radio-SkyPipe with SDRuno

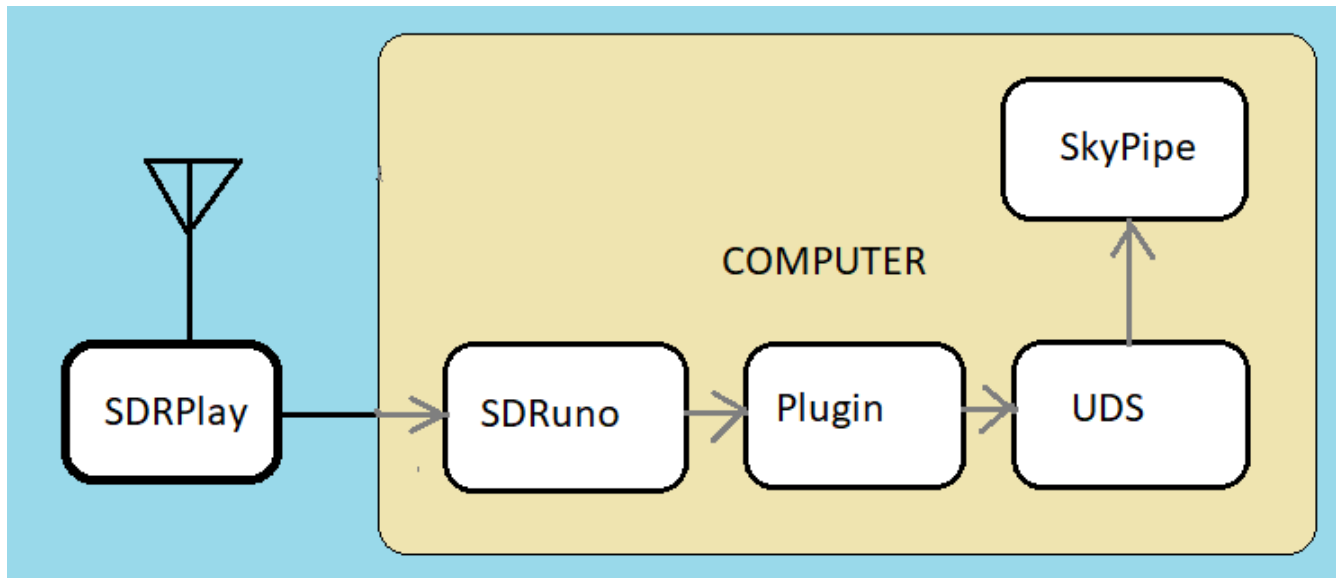


Illustration 1 Data train from antenna to Radio-SkyPipe via SDRuno.

The good accuracy provided by the SDRuno program, provides the observer with a calibrated signal that can be used directly by Radio-SkyPipe. Use the SDRuno *plugin* to send this signal level to Radio-SkyPipe by following the instructions below.

Getting What You Need

1. If you do not have SDRuno go to the SDRPlay.com website and get a copy.
2. Download the plugin from http://radiosky.com/skypipe/SDRunoPlugin_TCPServer.dll
3. Store this dll file in the Documents\CommunityPlugins\ folder.
4. Download the Radio-SkyPipe update from http://radiosky.com/skypipe/RSP11_Update_2_7_43A.exe (more recent is OK too)

Setting Up Radio-SkyPipe

1. Make sure you are running Radio-SkyPipe “As Administrator”.
2. Run Radio-SkyPipe and go to Options / Data Source and click on the UDS Setup button.

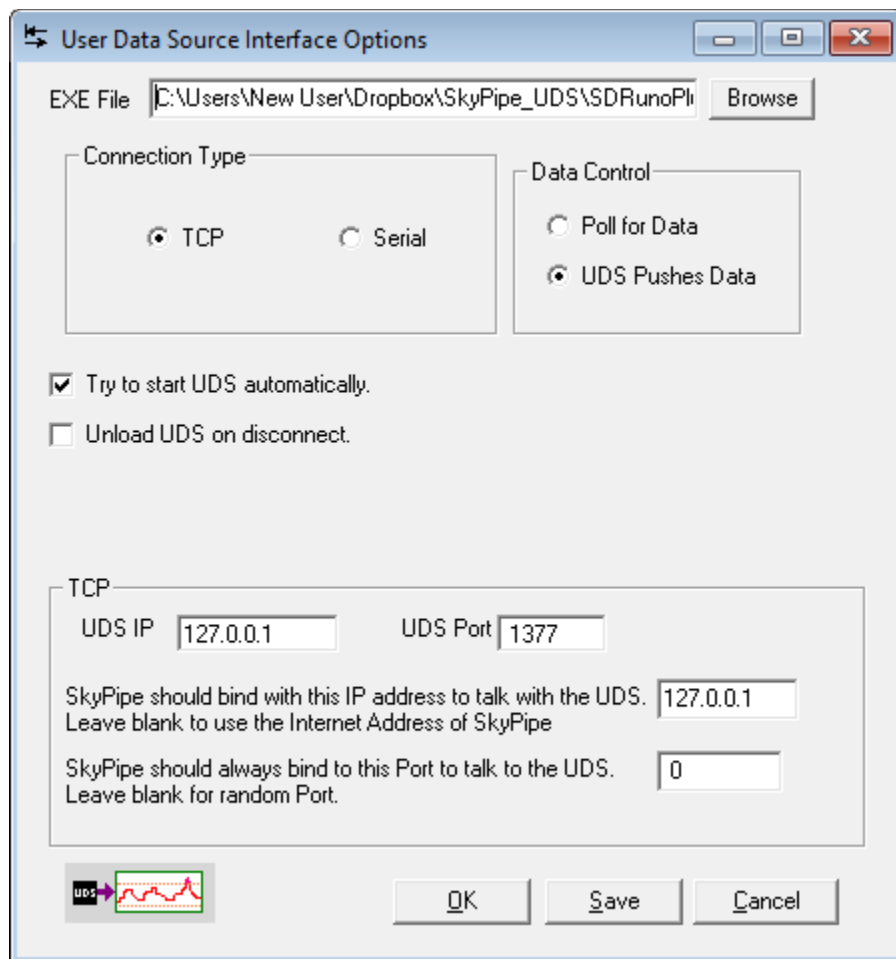


Illustration 2

3. Click the **Browse** button at the top of the **User Data Source Interface Options** panel and navigate to your *Program Files (x86)\Radio-SkyPipe II* folder and select the file **SDRunoPluginUDS.exe** and hit Open. Set the other parameters to look like the panel in Figure 2 and click **Save**.

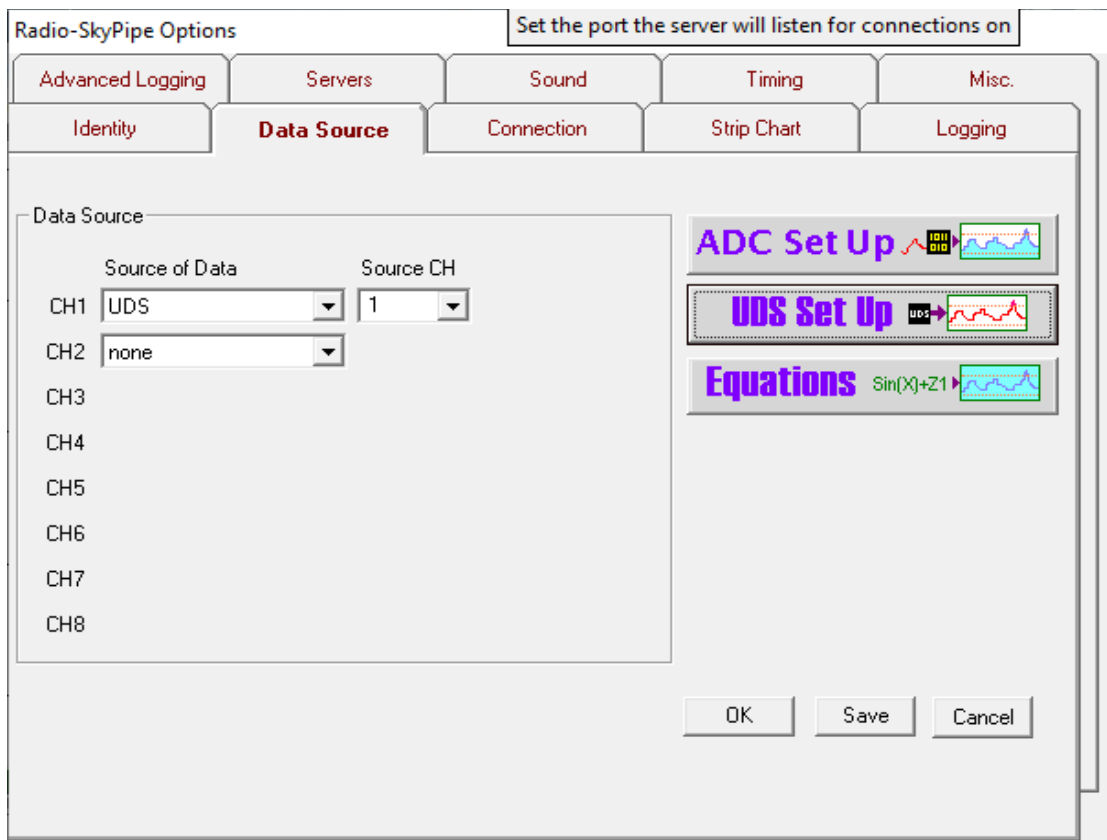


Illustration 3

- On the Data Source options panel, set the data source to UDS and the Source CH to 1.(Fig. 3)

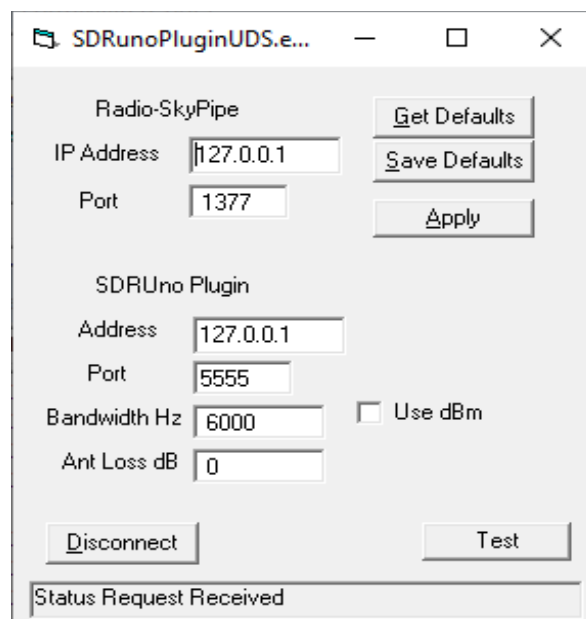


Illustration 4

- Using File Explorer, navigate back to your C:\Program Files (x86)\Radio-SkyPipe II\ folder manually start (double-click) the **SDRUnoPluginUDS.exe** UDS.

6. Somewhere on your screen you should see the UDS window (Fig. 4) Set it as shown. Set the Bandwidth Hz to 75% of the bandwidth you select in SDRuno. For example, the suggested SDRuno BW setting is “8000” would prompt you to use 6000 as the Bandwidth in the UDS. You must include your transmission line losses to your antenna to approximate the equivalent temperature at the antenna terminals. Save the settings with the Save Defaults button of the UDS. Note you may select Use dBm to record the power detected by SDRuno for some experiments but antenna temperature is the standard for Radio JOVE observations.

Running the SDRuno Pluggin

1. Have your SDRPlay radio connected and open SDRuno. Set up the band you want and set the RF gain to about the top (57.5 dB). I used AM and 8 kHz bandwidth on the 15m ham band.



Illustration 5

2. Click the Plugins button at the top of the SDRuno Main panel.(Fig 5) A list of Plugins will appear (Fig 6). Select TCPServer and then *Load Plugins*.



Illustration 6

Text 1: SDRuno Plugins list, consists of plugin dlls stored in Documents\CommunityPlugins. Select the TCPServer plugin.



Illustration 7

Text 2: TCPServer plugin used to communicate with Radio-SkyPipe.



Illustration 8

Text 3: Always set RF gain slider to maximum in SDRuno.

3. Hit the **Play** (Fig.8) button on the SDRuno Main panel and **Start** on the TCP Server Plugin window (Fig 8). Adjust the slider to broadcast every X milliseconds. I ran it at 100 ms.



Illustration 7

4. You may now hit the **Start** button in Radio-SkyPipe. It should connect to the UDS and begin taking samples.

