

Raven sound analysis demo

1. Open up a sound file in Raven:

Open Raven/RavenLite

Click File → Open Sound Files →

Choose a sound from the example folder that is an animal (non-human) sound.

The sound file should then open into the Raven window. Maximize the window.

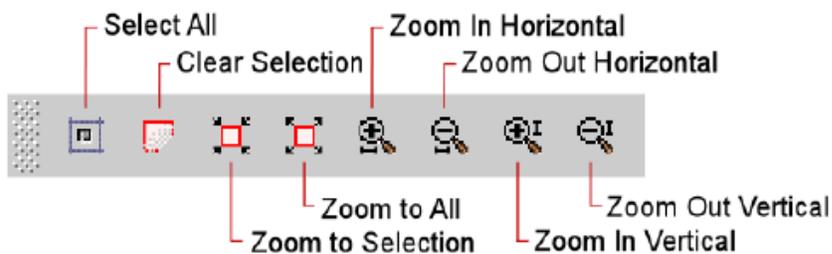
If you only see the waveform view, go to view → new → spectrogram view.

2. Identify what the sound file is showing you:

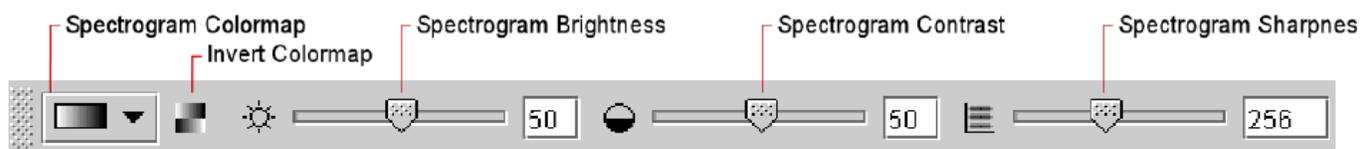
What are the names of the two types of graphs? How do they differ?

3. Adjust the view of the sound:

Use the zoom buttons to zoom in so that you have a good view of the sound:

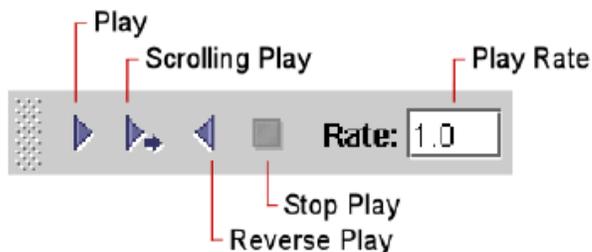


Now adjust the brightness, contrast and sharpness until you can most clearly see the characteristics in the spectrogram (especially the shape of each note):



4. Play the sound:

Press the Play button in the middle of the lowest tool bar.



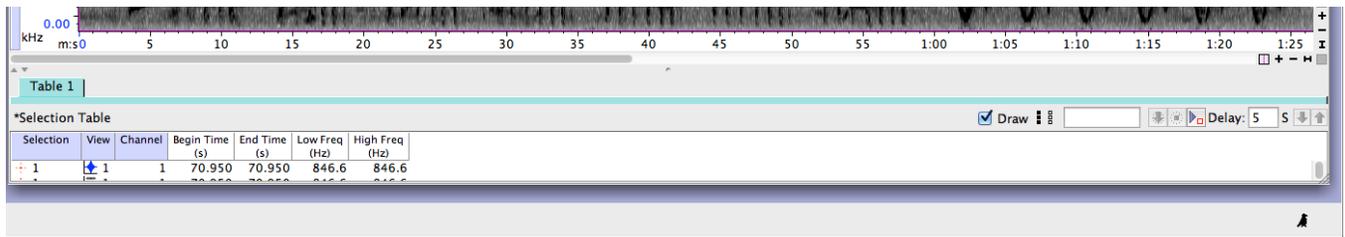
5. Measure the sound:

Click and drag to draw boxes around parts of the sound.

Now hold the cursor below the spectrogram window until the cursor changes to this:



Drag the window up until you can see the selection table:



Now, draw a box around one note, the measurements will show up in this table. Press enter after you've drawn a box to save the data in the selection table.

6. Identify important parts of the song:

Does the sound you're looking at have distinct notes?

How many notes are in the song?

What is the length (in time) of the longest note?

What are the maximum and minimum frequencies in the song?

7. Change the rate at which the song plays:

The speed of the song can be changed by changing the number in the box next to "Rate." The default setting is 1.00, which plays the song at normal speed (1x). Slow down the rate at which the song plays by changing the Rate to 0.25 and press Play.

What happens to the duration?

What happens to the frequency?

Do you hear more or less detail in the song when played at the slower rate?