Audio Techniques

Transferring your recording from a tape recorder into your computer

(a basic how-to guide)

Audio Techniques

Assumptions

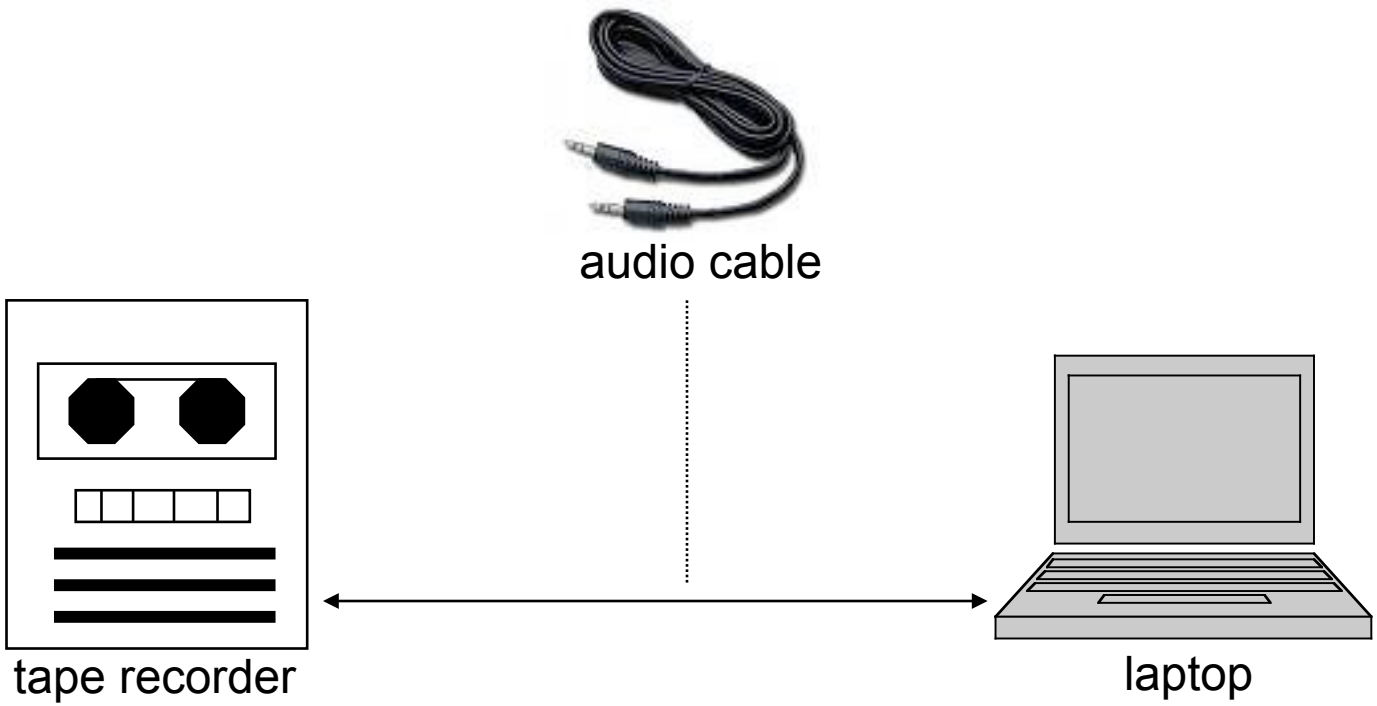
- You have a tape recorder with a headphone jack
- You have a computer with a microphone input
- You have the necessary cable to connect the two
- You have recording software
  - Your computer may already have this
  - Audacity is a good, free download
    - http://audacity.sourceforge.net

Making the Connection

- The process of converting a analog tape recording into a digital audio file is not difficult, and begins with connecting your tape recorder to your computer.

- Follow these steps

Making the Connection



Connect one end of the audio cable to the headphone jack on the tape recorder, and the other end to the microphone input on the computer.

Making the Connection

- For most equipment you will need a standard computer audio cable, which has a 1/8” mini-plug connector at either end

- For micro-cassette recorders you may need a “sub-mini” connector at one end

- For older tape recorders you may need a 1/4” connector at one end

  - Cables available at RadioShack, BestBuy, etc.

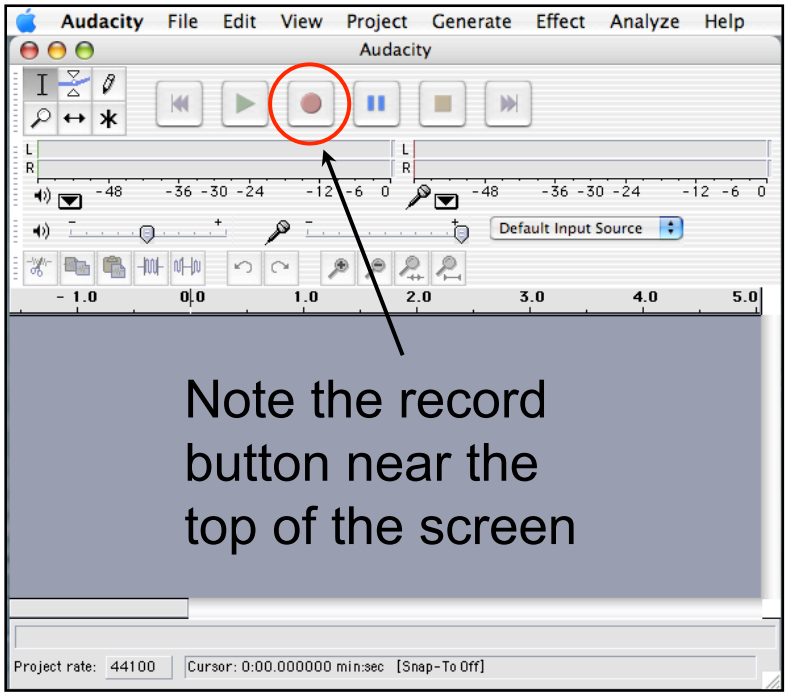
Prepare to Record

- Launch your audio recording software

- We'll use Audacity

Prepare to Record

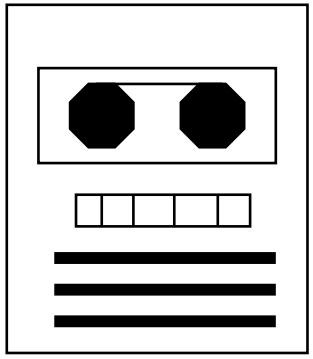
Here's the Audacity interface



Prepare to Record

On your tape recorder

- Set your headphone volume knob to about 50%
- Press play

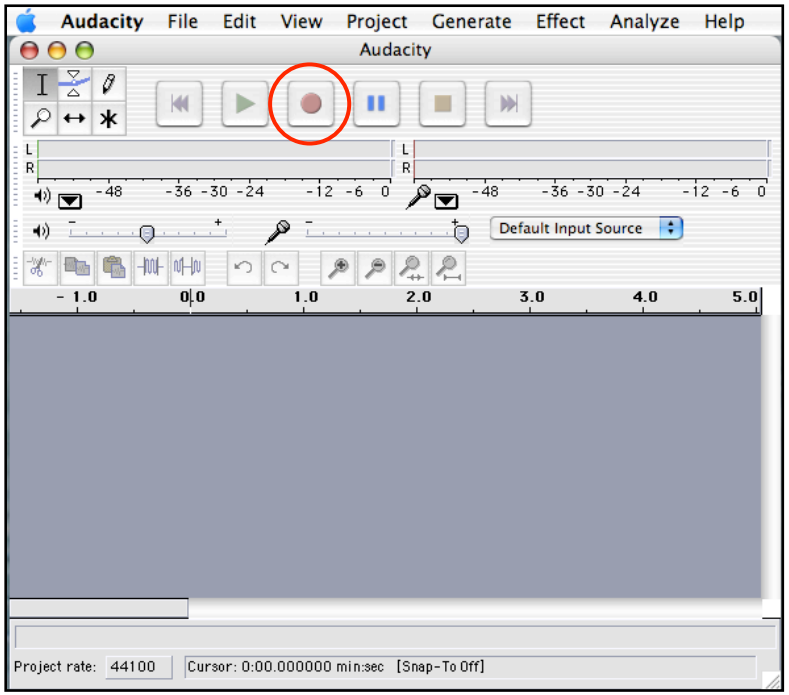


tape recorder

Prepare to Record

In Audacity

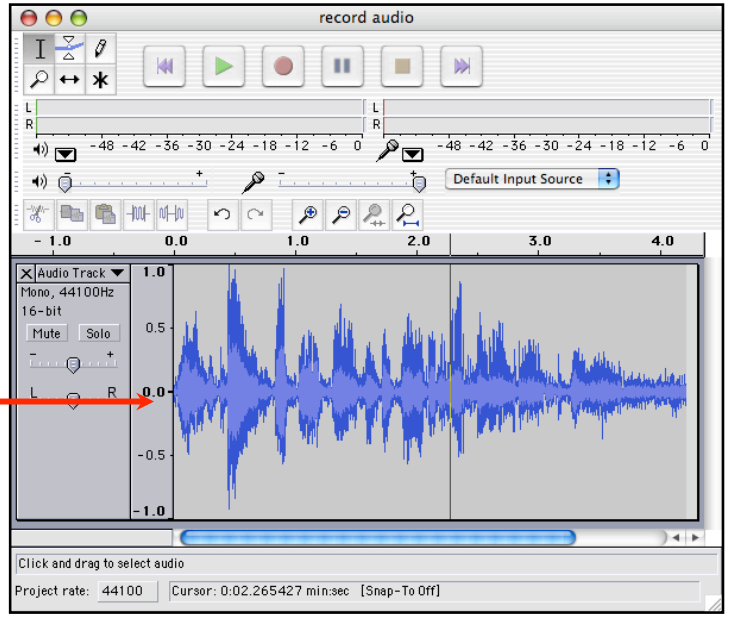
- Press record



Prepare to Record

While recording, adjust the volume knob on the tape

note waveform



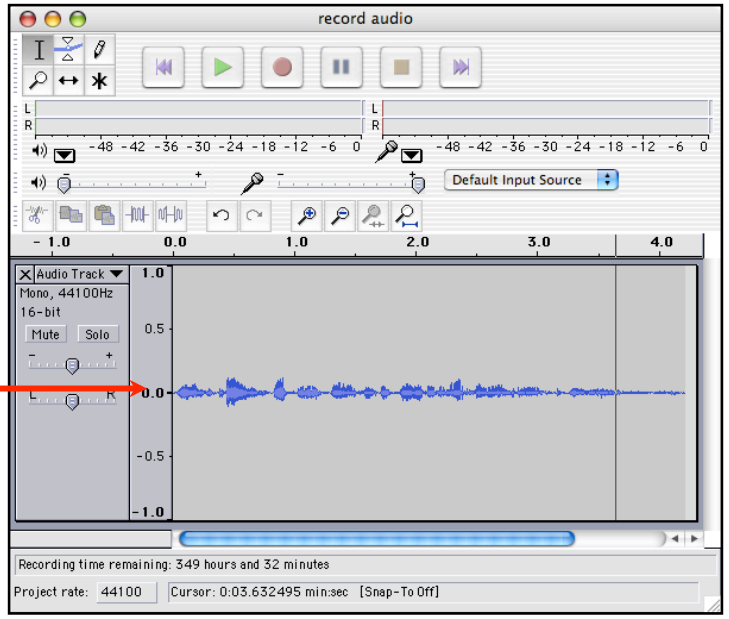
You will see a waveform in the Audacity window, indicating that you're recording

Prepare to Record

Waveform is small = audio signal is too weak

(sound too weak to hear)

note waveform



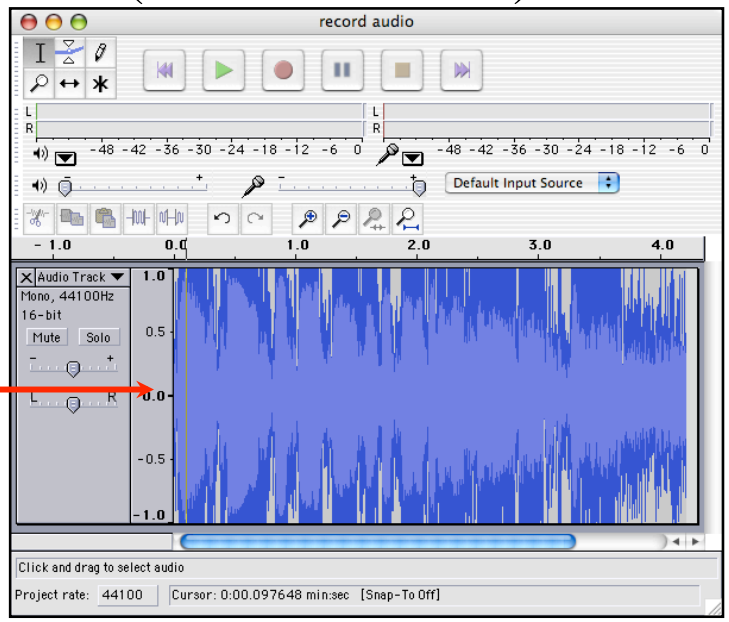
Turn the volume knob up on the tape recorder

Prepare to Record

Waveform is big = audio signal is too strong

(sound will distort)

note waveform

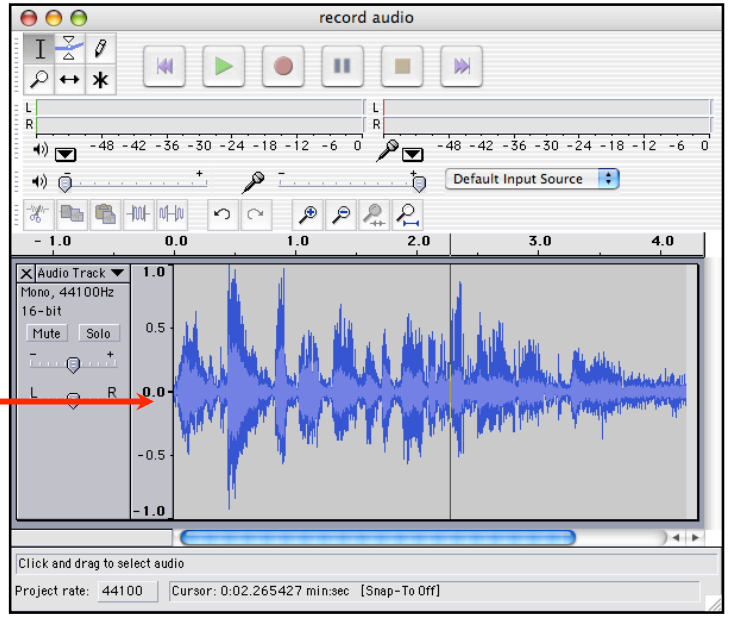


Turn the volume knob down on the tape recorder

Prepare to Record

Here’a good audio level for recording

note waveform

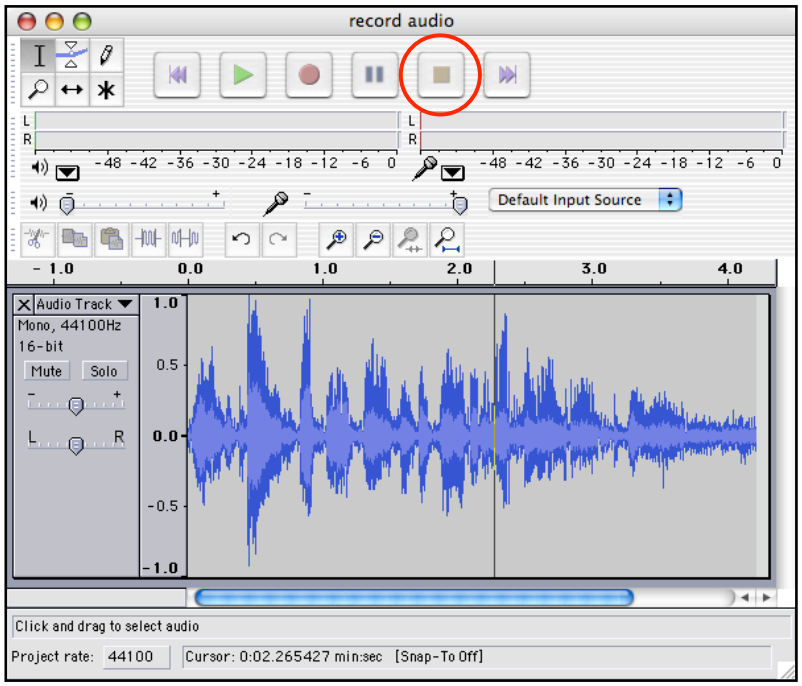


You want a strong signal, but not too strong

Prepare to Record

Once you've determined the correct audio level

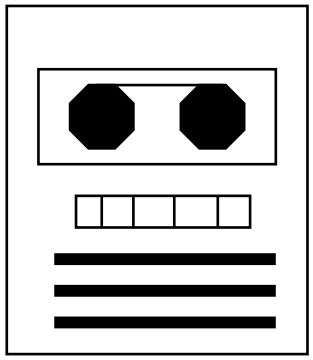
- Press stop



Prepare to Record

On your tape recorder

- Stop and rewind your tape to the starting point
- Leave the volume knob at the correct level

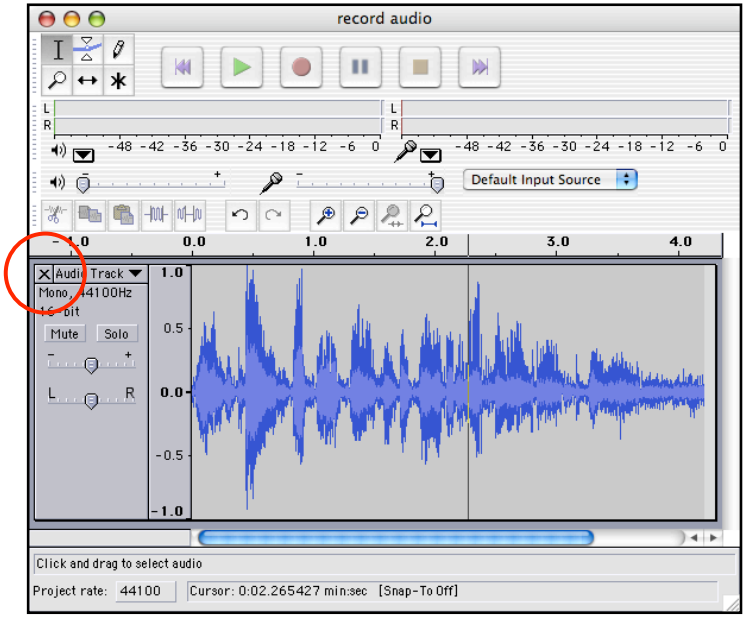


tape recorder

Prepare to Record

Once the level is set you can discard the test recording by clicking on the “close” button for the test audio file

close button



This will discard the test audio file--that’s ok

Do not close Audacity itself

Recording

- You've set your level
- You've rewound your tape
- You're now ready to record your audio file

Recording

- Press the “record” button in Audacity
- Press the play button on the tape recorder
- Confirm that a new audio file and waveform are being created

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Once the recording has been transferred

- Press the “stop” button in Audacity

Congratulations

You've just created an Audacity audio file

Yes

You've just created an Audacity audio file

but

You must save that file

and

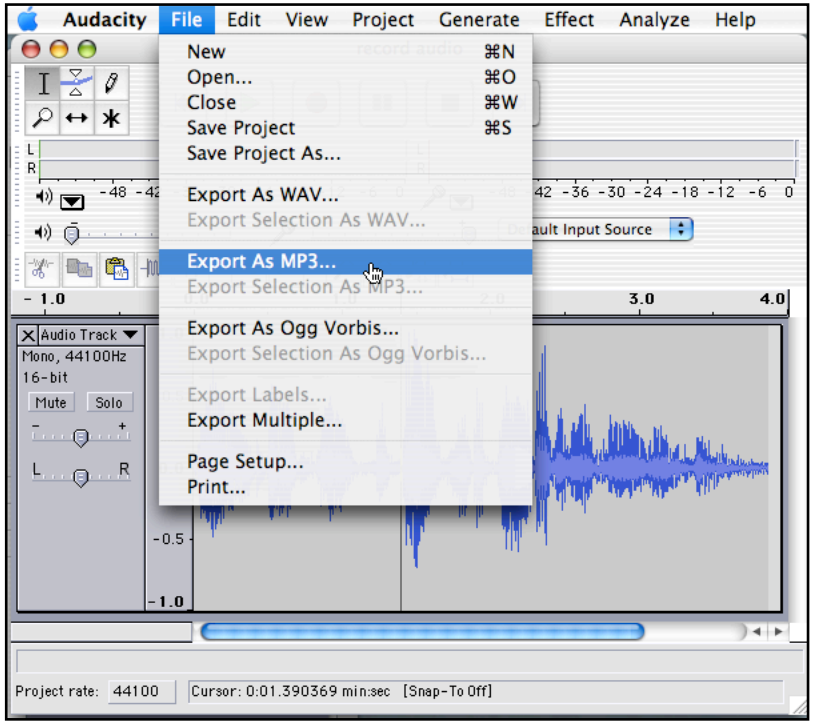
Export the file to mp3 or .wav format

LAME mp3 encoder

To create an mp3 you'll need the LAME mp3 encoder. This encoder is available from the Audacity web site as a separate download.

Download the encoder and store it some place on your computer. Note that location, because you'll need to know it the first time you export an mp3. It should be automatic after the first time.

Exporting



Note that the file menu allows you to:

- save your project
- export to .wav
- export to mp3

Sharing

- The .wav and mp3 formats are almost universal, and can be played on almost every computer
- This means they're easy to share and easy to duplicate
- mp3 formatting is more heavily compressed and so result in much smaller file sizes