

025:250 Composition: Electronic Media I

Sept. 14, 2005

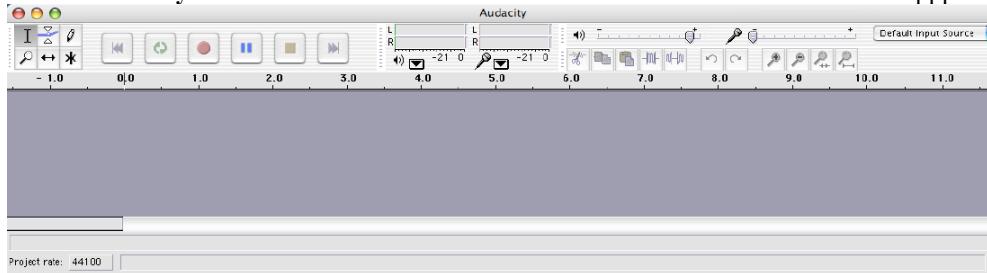
Basic Operations in Audacity

1. Audacity is a free, open source, cross-platform recording and editing program that will replace Peak, in the course **Composition: Electronic Media I**. It can be download for free at <http://audacity.sourceforge.net/>. It will run on Mac OSX, Windows, Linux, and Unix computers. It is being rapidly adopted by sound researchers and over a million copies have been downloaded.

2. Power up the studio, bring up Mackie faders 1, 2, 9, 10, and send these to the desired busses and outputs.

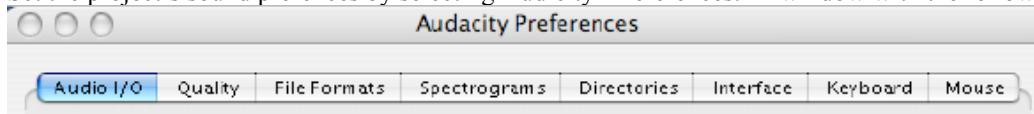
3. To create a project, do the following:

- Launch Audacity from the icon  in the dock. A window like the one below will appear:

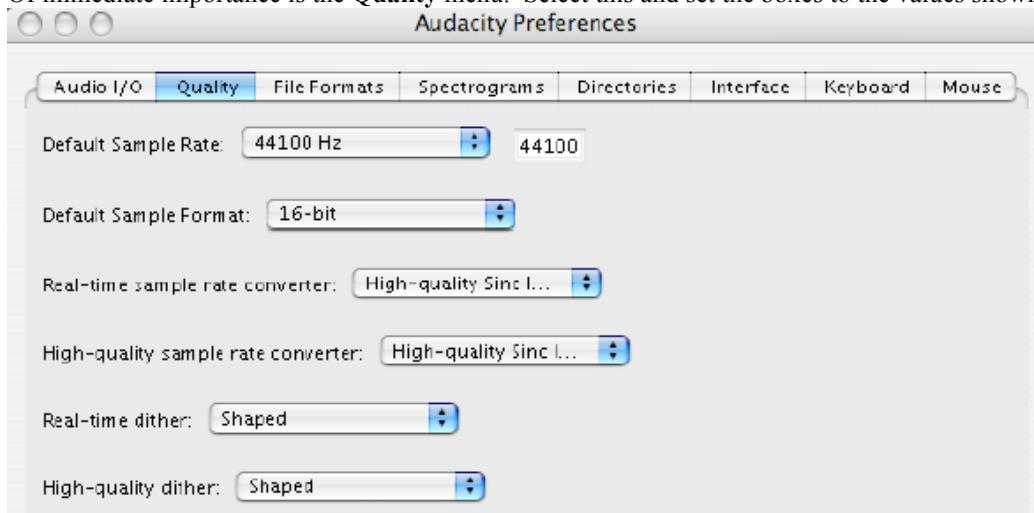


- Re-size the window in any way that you want. Note that the controls at the top of the window change locations when you change the size of the window.

4. Set the project's sound preferences by selecting Audacity>Preferences. A window with the following menus will appear:

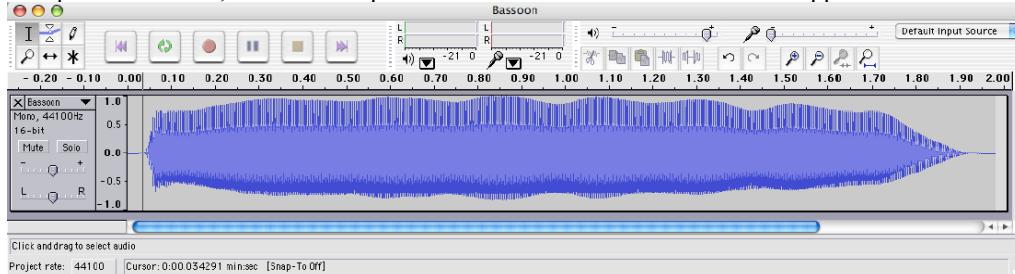


Of immediate importance is the **Quality** menu. Select this and set the boxes to the values shown below:



Note the sample rate, sample format (bit-depth), sample rate converter, and dither settings.

5. To open a soundfile, select File>open. A window like the one below will appear.



Note that the file information on the left indicates that this file is mono, 44.1 kHz, 16-bit.

6. The Track pulldown menu (on the left of the track) has some important options:
 - a) Name: Changes the name of the track.
 - b) Waveform: Usual way of displaying sounds in the sample domain.
 - c) Waveform (dB): Less intuitive than waveform; useful for researchers.
 - d) Spectrum: Displays a spectrogram.
 - e) Pitch(EAC): Highlights the contour of the fundamental frequency using the Enhanced Autocorrelation (EAC) Algorithm. Useful for transcription of sampled sounds to pitch notation.
7. Consider the controls in the upper portion of the window, as shown below:
 - a) Selection Tool: Selects the range of audio for editing or playback.
 - b) Envelope Tool: Modifies the envelope over time.
 - c) Draw Tool: For drawing or modifying individual samples.
 - d) Zoom Tool: For zooming in and out (see bottom of window for instructions).
 - e) Timeshift Tool: For sliding tracks left or right.
 - f) Multitool: Used with key commands to access all tools.
8. The Audio Control Buttons have the usual functions.
9. The meters show volume out and in levels; the speakers and mic sliders adjust out and in levels.
10. Use caution with the other commands in the top portion of the window (copy, cut, paste, zoom, etc.).
11. Consider the following menu items:
 - a) File>New: Opens a blank document.
 - b) File>Open: Opens an existing audio file and converts it to the project format, described above.
 - c) File>Save>Project: Saves all of the work, much like a **Pro Tools Session**.
 - d) File>Export As AIFF: Exports all tracks, bounced down or as selected, into mono or stereo aiff files.
 - e) Edit: Note the usual copy, cut, paste commands.
 - f) View: Zoom, window resizing, and floating toolbar functions.
 - g) Projects: Useful for importing audio or MIDI into tracks.
 - h) Generate: Generates a few basic signals.
 - i) Effect: Highlight a portion of a soundfile, then select an effect to apply. Just follow the instructions. Some to consider in class are:

Change pitch

Equalization

Fade in/out

Noise Removal

Normalize

Reverse