A Quick Guide to Using Audacity for Making Podcasts

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Table of Contents

Introduction

What is a podcast?

Basically, a podcast is a digital media file, or series of files, that contains a script, (a bit of computer coding), that may be distributed via the Internet, downloaded and played on devices such as a computer or portable devices such as the iPod or other media players. The prefix "pod" comes from Apple's iPod, since the first podcasting scripts were developed for that device. The suffix "cast" is obviously taken from the word broadcast. Despite the name, iPods are not necessary to create or use podcasts. A podcast is distinguished from other digital media formats by its **ability to be syndicated, subscribed to, and downloaded automatically**, using an aggregator (or feed reader) capable of reading feed formats such as RSS (Really Simple Syndication). When a media file is a podcast to which you may subscribe, you will usually see the icon to the left indicating an RSS feed is available. RSS does the work of checking for updates regularly and, when found, downloading them automatically to your iTunes, iPod, WinAmp or other MP3 player. If you were to load individual lectures to your course web site WITHOUT an RSS script they would *technically* not be podcasts, but rather downloadable, or streaming, media files.

Why Audacity?

Audacity is easy to learn and to use, it has many advanced features, (most of which you may never need), it is reliable and best of all… it is FREE! Audacity is a free-ware, open-source, software that is a powerful recording and editing tool. It is available for absolutely free via download at: **http://audacity.sourceforge.net/**. After choosing your platform and downloading the appropriate Audacity for your system (MAC, Windows, or Linux/Unix), remember to also **download** the appropriate **LAME MP3 Encoder**. This will allow Audacity to export the finished files as MP3s that can be easily posted online. Audacity also exports a format known as Ogg Vorbis. Ogg Vorbis files are somewhat equivalent to MP3s. They are compressed and therefore take up much less disk space, but, like MP3s, they lose some audio quality. Ogg Vorbis files tend to be slightly smaller than MP3s and deliver a similar sound quality, and Ogg Vorbis is free from patents and licensing restrictions; however, Ogg Vorbis files are not as widespread or popular as MP3s. Audacity can also export audio files as uncompressed wav files.

What's in This Guide?

This guide is divided into two parts. The first part is meant as a quick guide to getting started with Audacity. This section covers only the tools needed to begin recording and editing immediately; however, it is full of tips and techniques. The second part is a more detailed overview of the program's tools and menus. The second part also serves as a reference guide for those who wish to learn as they go.

This guide deals specifically with installing, configuring and using Audacity in Windows.
For faculty at UCLA wishing to podcast class lectures, contact Daniel Bustos and the Bruincast Team at 310-794-9146, or bruincast@oid.ucla.edu and under most conditions they can podcast your lectures without any extra effort on your part.


Installation

Installing Audacity in Windows is very simple. After clicking on the Windows download link on the Audacity site you will see a download dialog box like this:
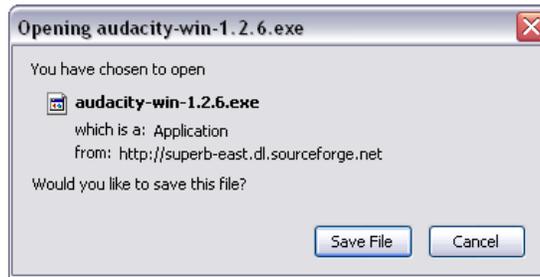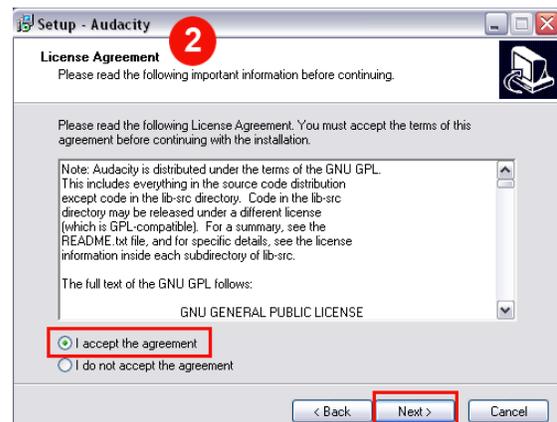

Click "Save File" and save the file to your computer desktop. Once you have done this you will see this icon on the desktop:
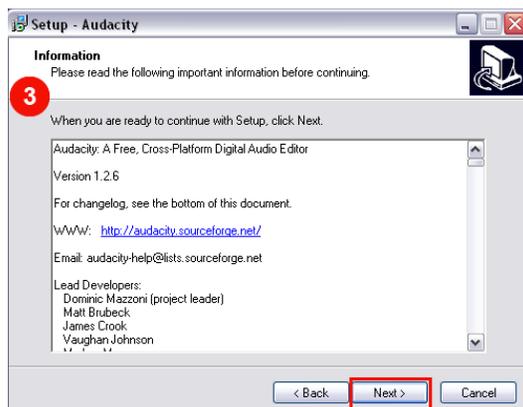

To begin the installation process click on the icon to launch the Audacity Installation Wizard, which will walk you through the rest of the set up process.
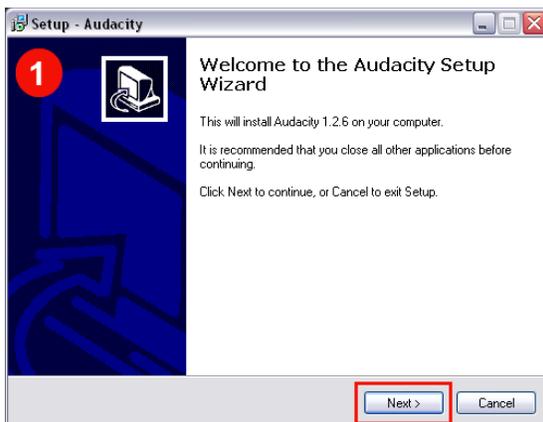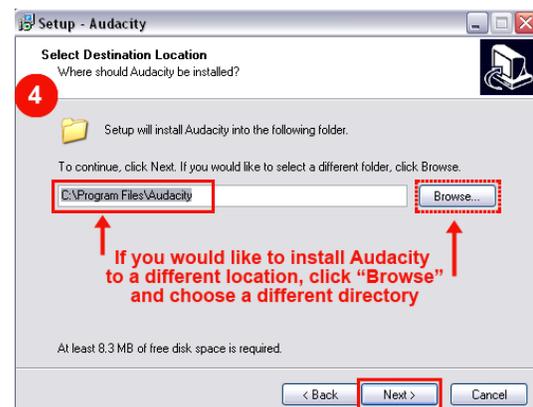

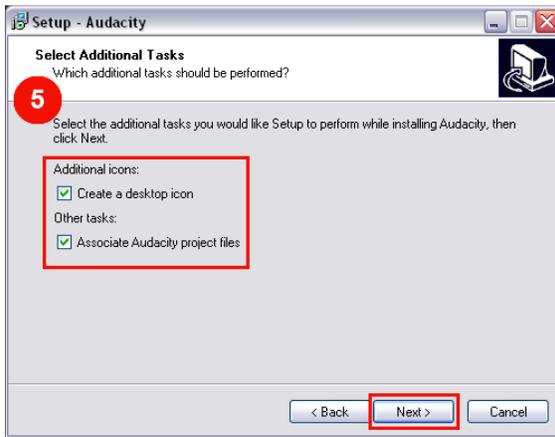Welcome to the wizard: On the first screen Click "Next"

Then, you must check the "I accept the agreement" button and click "Next"

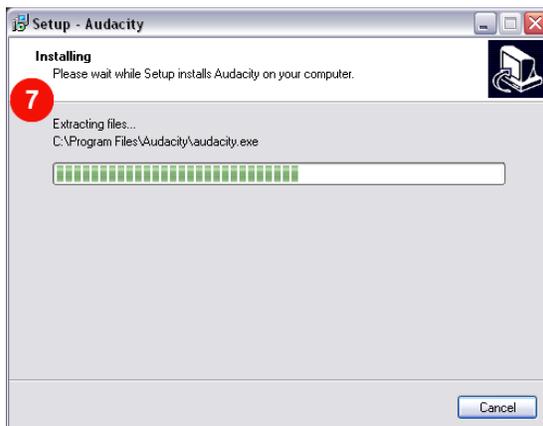If you wish, read this information then click "Next"

By default Audacity will set up a folder in Program Files on your computer. Click "Next"

Select Additional Tasks – Click "create a desktop icon" and "Associate Audacity Project Files" then click "Next"


Ready to Install – Click "Install"

Installing – This page displays the progress of the install. It may only flash on your screen for a second then proceed to the last window.


Completing the Audacity Setup Wizard - If you want Audacity to launch immediately, select the box beside "Launch Audacity"

Installing the LAME MP3 Encoder

Now that Audacity has been installed on your computer, you may now install the LAME encoder. After downloading the LAME encoder you will find this Icon on your desktop:
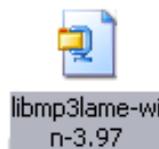
The LAME file is contained in a Zip archive file, so you will need Winzip to open it. (To get a trial version of Winzip please visit: http://www.winzip.com/downwz.htm). Click the icon and Winzip opens up. In the Winzip startup window choose "Use Evaluation Version" and Winzip will display the files that are archived in the zip file. To get started, click the "Extract" button. (See image below).
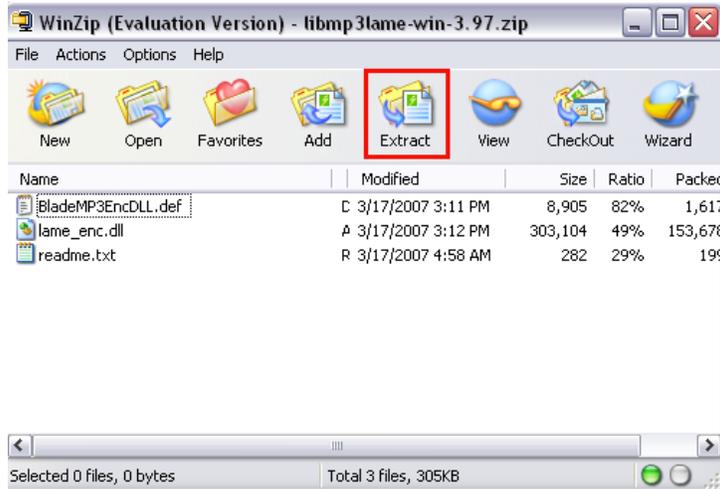
When you click "Extract" you are then asked to where you wish to extract the files. We will want to install these files in the same folder as Audacity. Therefore, go to your [C:] Drive and expand it by clicking on the plus sign to the left of the drive icon. If you installed Audacity in a different directory, locate that directory then proceed. See image below:
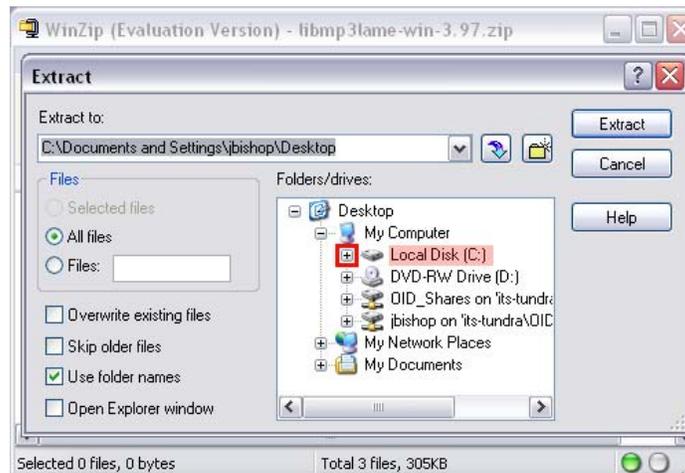
After expanding the [C:] Drive, drop down until you find the folder "Program Files." Expand this folder by clicking the plus sign to the left of the folder icon:
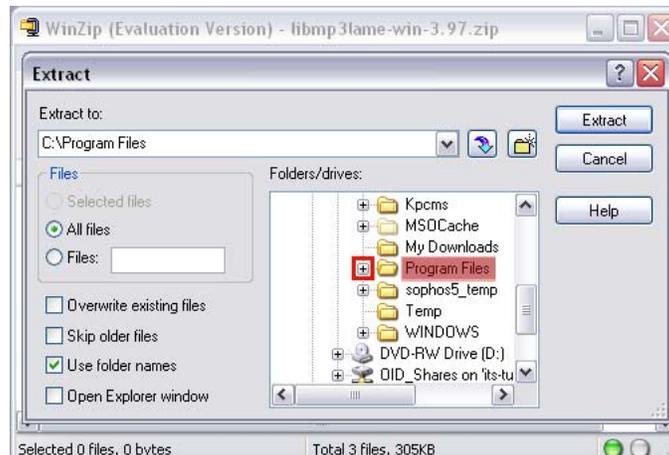
Once the "Program Files" folder is expanded, drop down to the "Audacity" folder. Click on the folder (not the plus sign) and the image of the folder will change from closed to open (1). Once it is open, click the "Extract" button (2) and the files will be placed in the "Audacity" folder.

The LAME MP3 exporter will be automatically "plugged-in" to your Audacity recorder and will be available the next time you start Audacity. Now that Audacity and the Lame Encoder have been installed on your computer, you are ready to go!

Getting Started

The first thing you will want to do is plug your headset or microphone into your computer. If you are not certain which headset or microphone to use, I suggest the "Snowball" made by highly respected microphone craftsmen Baltic Latvian Universal Electronics, or B.L.U.E. for short. B.L.U.E. is well-known for their higher than high end recording studio microphones like the Blue Bottle, the Cactus and the Kiwi. The "Snowball" was engineered especially with podcasting in mind and comes with a USB cable and a sturdy tripod table stand for under one hundred dollars.

If you prefer to use a headset to record then I suggest the Plantronics DSP-400 with its digitally enhanced noise-canceling microphone. The headset is equipped with a USB plug that is compatible with both MAC and Windows. The

B.L.U.E. Snowball

Plantronics DSP-400

Plantronics DSP runs between forty-five and seventy dollars. Both the "Snowball" and the DSP-400 are so easy to use that all you need do is take them out of the box, plug them in to your computer and they are ready to record.

Although you may still use older style microphones that use a mini-plug to connect to your computer, remember that the sound cards that come with computers are prone to introducing noise into the file. USB delivers a far cleaner recording.

Once you connect your microphone, launch Audacity. When you open Audacity in Windows you will see the following screen:
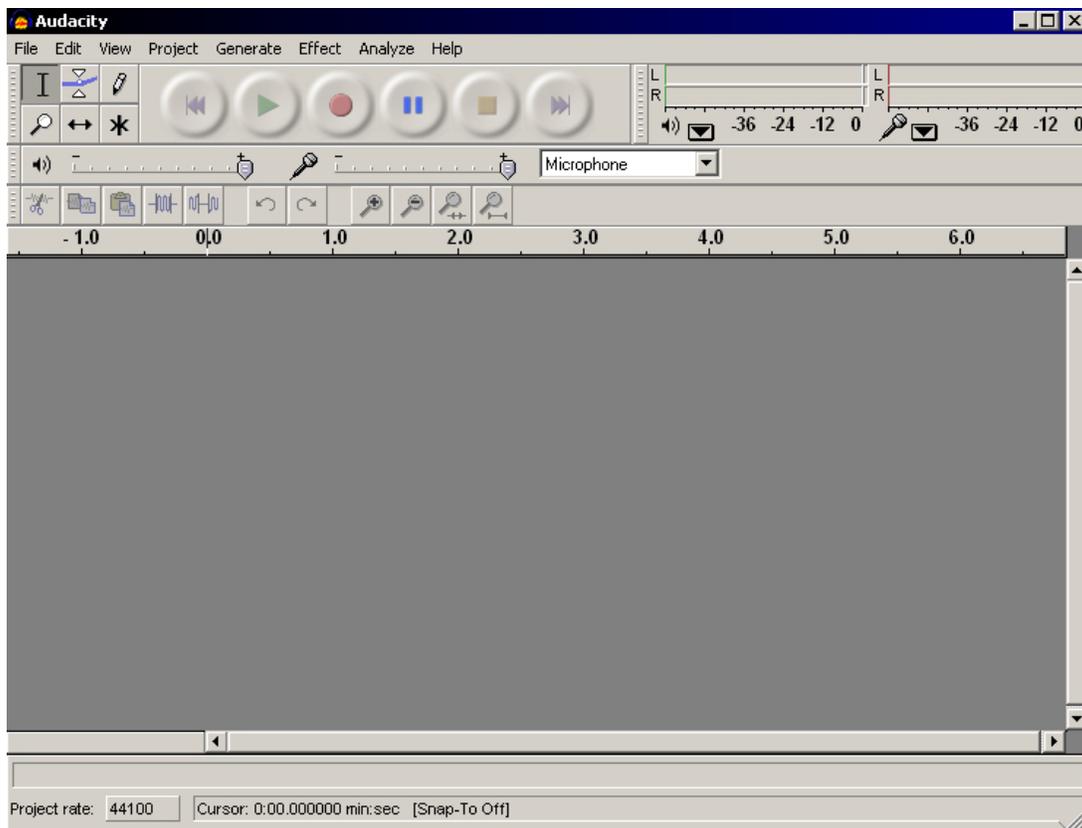

The Audacity Interface, or Work Area in Windows

Performing a Test Recording

Although Audacity automatically detects a microphone connected to your computer; you can select "Microphone" from the drop-down menu of input source options. Please see (1) in the image below. To perform a test recording, press the record button (2) and speak into the mic. A wav file will be generated on your screen where it is at number three (3) in the image below. Click the mouse at the beginning of the file and press "Play" or hit the space bar on your keyboard to replay the sound.
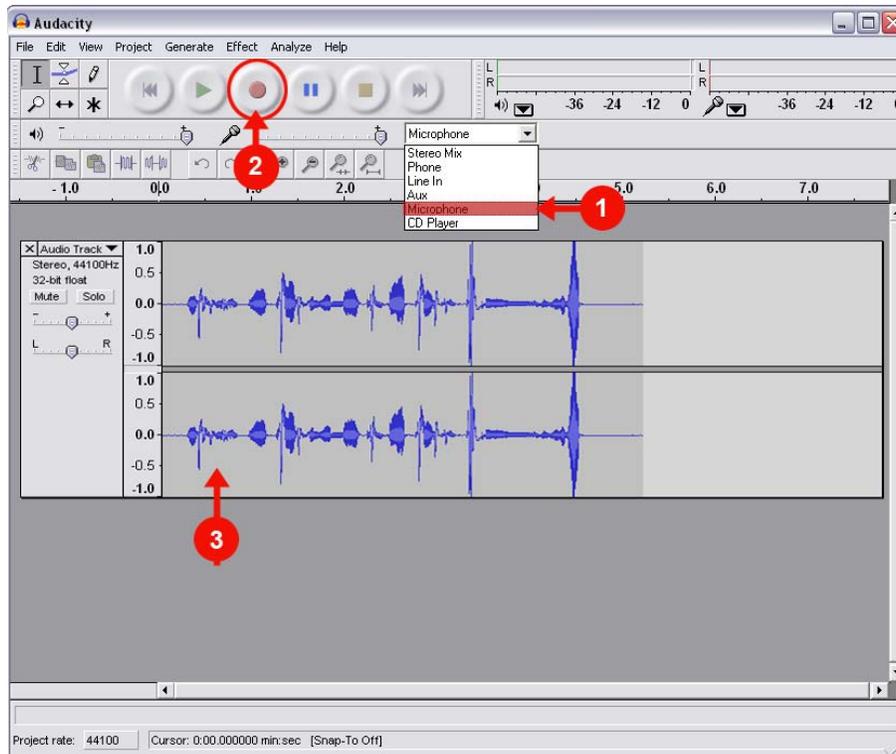

While making your test, be sure to watch the microphone levels on the meter at the far top right of the control panel. Make sure they do not exceed -12 on a regular basis. This will assure a distortion-free recording. If you need more volume you can add it later.
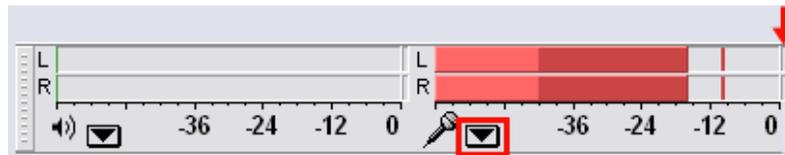
The sound meter provides several pieces of information: The bright red part of the bar represents the average levels of the input (what most of the recording sounds like), the darker part of the bar represents peak levels where the sound for one reason or another became much louder than the average for a second or two, the red lines to the right of the bar indicates the highest peak reached during the past three seconds, and finally, if the small windows (see red arrow) light up that indicates that the sound has been clipped and will sound distorted. You may control this by decreasing the input volume control. If you select the pull-down menu (indicated by the red box) you are presented with a variety of options for viewing the meter. (See image on right).

8
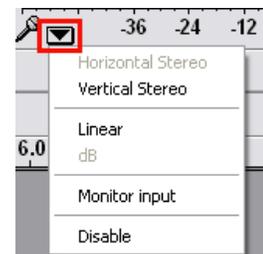
Below, is the main control panel containing the most important tools used for recording audio tracks. Take a few minutes and get familiar with where everything is and what everything does in your Audacity.
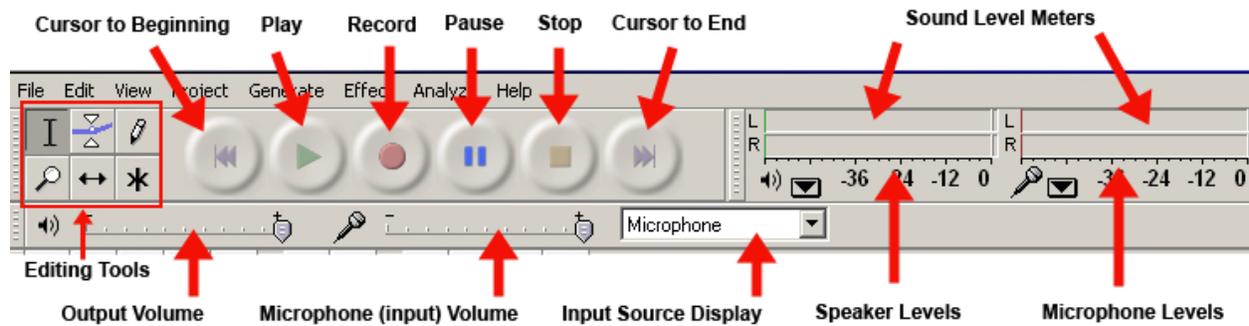

Recording a "Podcast"

Now that your system is set up and receiving input from your microphone and you have tested the levels, you are ready to make a recording.

TIPS for creating optimum recordings:

(1) create and rehearse a "script" that conveys your message (if applicable)

(2) sit back and get comfortable,

(3) relax (take several slow, deep breaths),

(4) maintain about 12-15 inches between your mouth and the front of the microphone,

(5) before recording, take a normal breath, hold it, click the record button and then begin,

(6) speak in a clear, normal voice as though you were talking to your students or a friend,

(7) avoid watching the wav files generate in Audacity (in fact, ignore Audacity once you begin)

Begin Recording

When you are ready, press the Record button and speak into the microphone. After you have completed your recording press the "Stop" button. You should see a wav file in the work space of Audacity similar to the example below. Usually the recordings need a little editing before they are ready to publish.


9
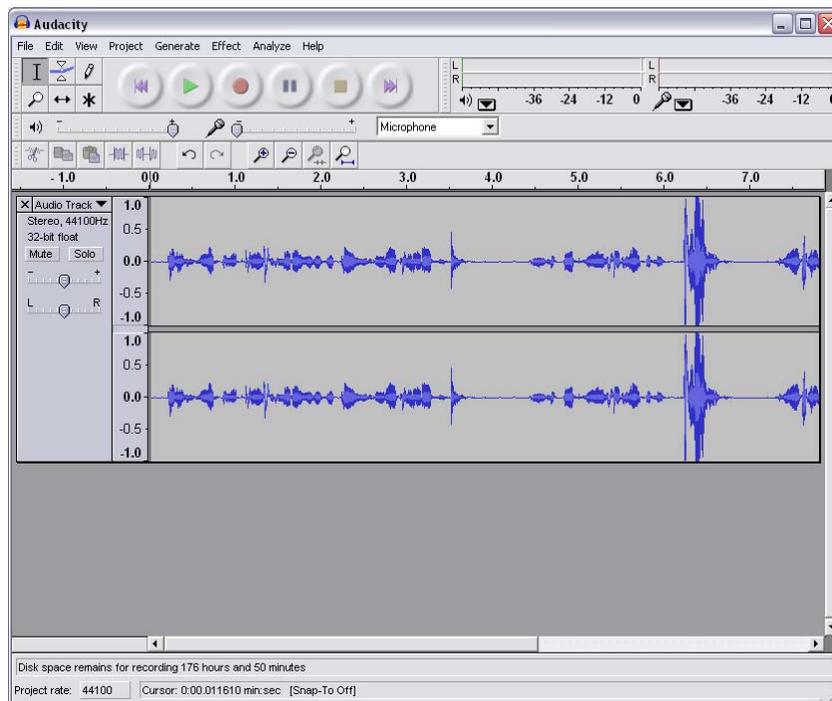
Basic Editing Techniques

In this example there are a couple of changes, or edits, that are needed: (1) the overall volume is too low, (2) a book fell over on the desk, and (3) the wind made an office door slam shut. We need to correct these problems before we export the project. The best procedure is to delete any unwanted sounds from the wav file, then move on to volume adjustments, etc.
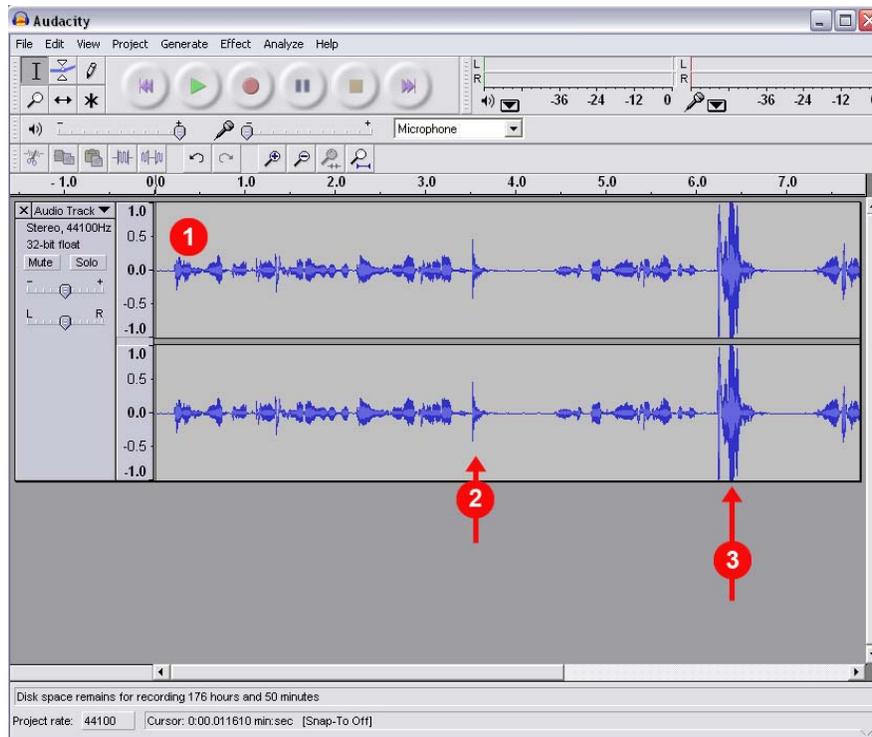

To accomplish our goals we will need to use the "Selection" tool (1). Click the mouse to the right or left of the sound that is to be deleted, hold down on the mouse and drag it to select the sound (2). Then,
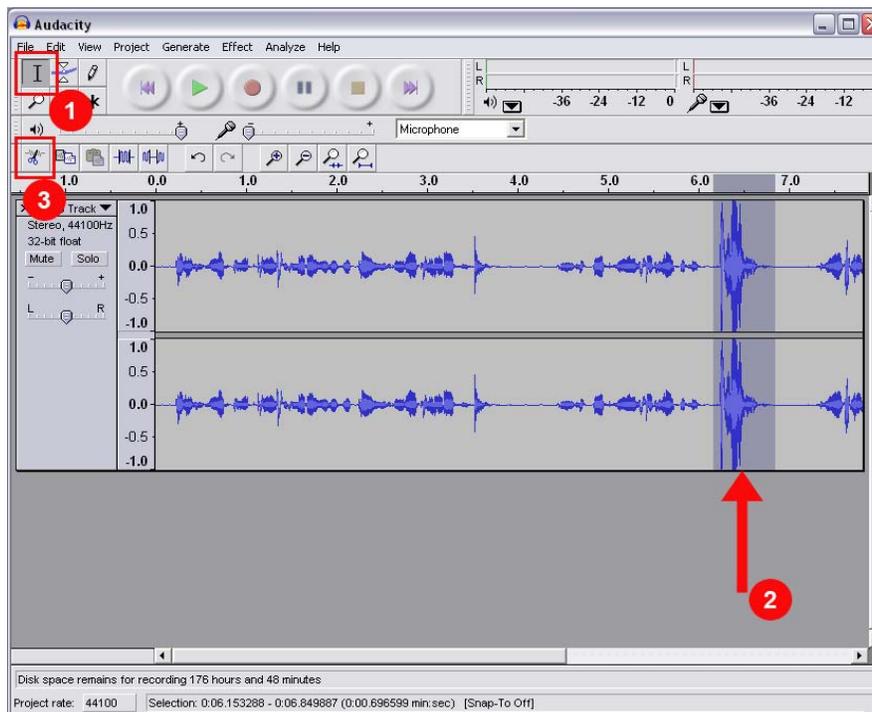
either click on the on the cut button (3), or hit the delete key on the keyboard. The area selected is deleted from the project. Please see the image below. Repeat this process on all noises you wish to remove. Once all the noises have been edited out, it is time to increase the volume.
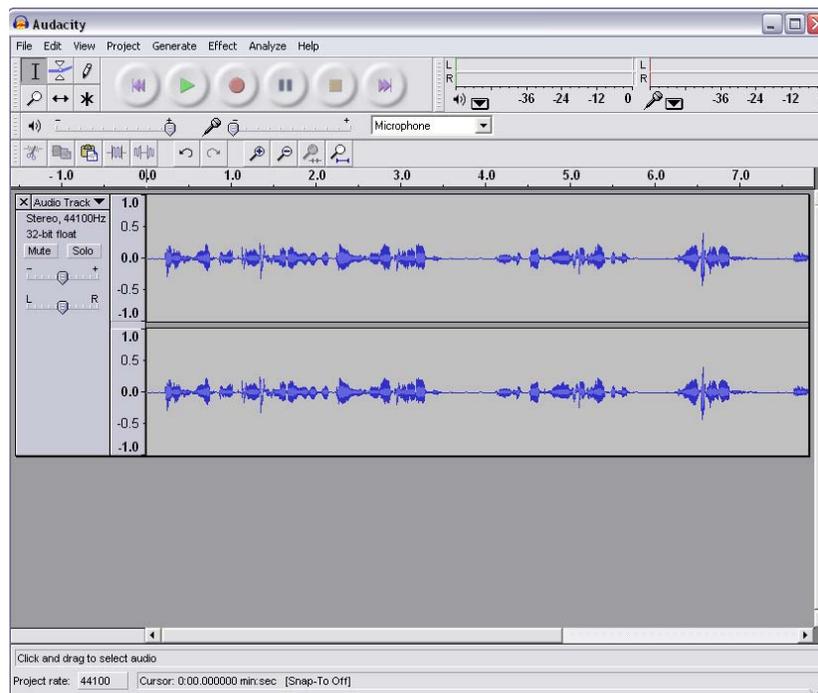
Increasing the final volume in audacity can be accomplished in two different ways: The first and easiest method is to increase the volume on the track controls. Below you will find an overview of the track control panel (for more information on the track control panel see page ---). By sliding the volume marker to the right you can increase the volume of the track.
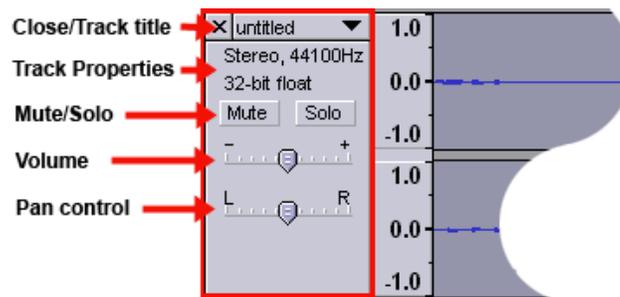
The second way to increase the volume is to use the "Amplify" tool located under the "Effect" menu. To use this tool you must first select the area to be amplified using the selection tool. Then go to "Effect" and choose Amplify. When you do you are presented with a dialog box that allows you to specify the number of decibels you wish raise the track. This method is far more cumbersome than using the volume slider on the track control panel.

Once all the edits are complete and the track is satisfactory, it is time to save your project.

Saving the Project
Saving the Project is different from saving the individual tracks in the project. Saving the Project saves everything in the window into an Audacity-specific format so that you can save and quickly continue your work later. An Audacity project consists of a project file, ending in ".aup", and a project data folder,

11

ending in "_data". For example, if you name your project "Composition", then Audacity will create a file called "Composition.aup" and a folder called Composition_data. Audacity project files are not meant to be shared with other programs and must be re-opened in Audacity. To save the project go to the "File" menu and choose "Save Project."

Exporting the File
To save files that are useable in other applications, you must "Export the File." When exporting files from Audacity there are three format choices: WAV, MP3 and OGG VORBIS.

Export as WAV... - exports all of the audio in your project as a WAV file, an industry-standard format for uncompressed audio. You can change the standard file format used for exporting from Audacity by opening the File Format Preferences. Note that exporting will automatically mix and resample if you have more than one track, or varying sample rates.

Export as MP3… - exports all of the audio as an MP3 file. MP3 files are compressed and therefore take up much less disk space, but they lose some audio quality. You can set the quality of MP3 compression in the File Format Preferences.

Export as Ogg Vorbis...- exports all of the audio as an Ogg Vorbis file. Ogg Vorbis files are compressed and therefore take up much less disk space, but they lose some audio quality. Ogg Vorbis files tend to take up a little less disk space than MP3 for similar compression quality, and Ogg Vorbis is free from patents and licensing restrictions, but Ogg Vorbis files are not as widespread. You can set the quality of Ogg compression in the File Format Preferences.