Introducing working with sounds in Audacity

A lot of teaching programs makes it possible to add sound to your production. The student can either record her or his own voice and/or add different sound effects to the recordings. The recordings can be used for radio play and other sound productions.

You could also play "guess a sound" - find og recognise sounds – or produce sound sequences for small video productions.

Through times, sound was recorded on different media, like records and tapes. Media with vary lifetime.

Today some schools may still use cassette recorders, but we must get use to new technology, that most students can operate today. MP3 players was the big hit for Christmas presents in 2004 and most of these small devices were also able to record sounds via a build-in microphone.

Today most mobile phones has a build-in MP3 player.

Audacity is a freeware program, which means, free of charge. You can download Audacity here: http://audacity.sourceforge.net/download/. The program is a multi track sound editing program, which means, you can work on more tracks simultaneously. You can have a sound clip from a CD on one track, while you record sound from a microphone on another track. The result is a mix of the two tracks.

Audacity reads many different formats and can save as Wav, MP3 and other formats.

You can download sound clips from the internet. E.g.: http://www.lyde.dk/lydarkiv/.

Audacity has a variety of functions, making it very specialised for audio editing, but are you confident with the below 5 points, you can record, do basic editing and save your audio files.

Windows settings

**Before** you start recording and play sounds, it's important Windows is set up correctly.

Windows has a Volume Control to control the sound volume. Double-click the loudspeaker icon, found in the Windows taskbar, in the lower right corner, next to the clock...

A new window opens, similar to the one below:
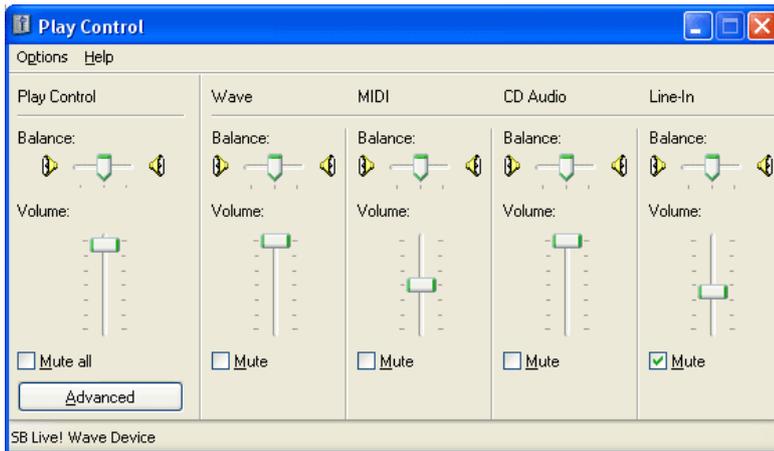
On the sliders, you can adjust the sound level. In this example the volume is turned to max.

Choose **Options** -> **Properties**. Now you can switch between the Playback and Recording channels:
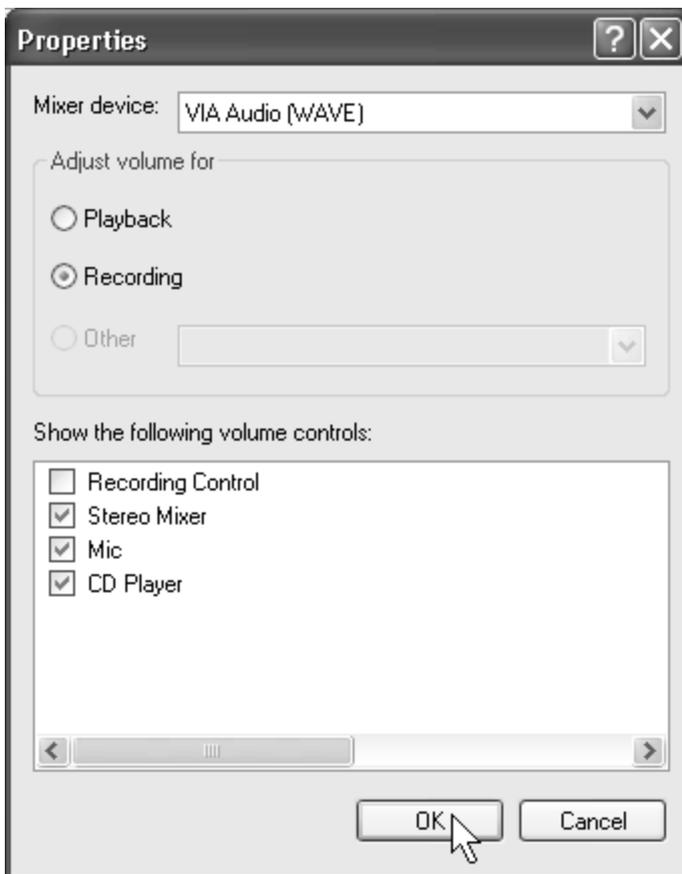
3 check marks have been set, Stereo Mixer, Mic and CD Player. This will allow you to adjust the recording volume for each the checked items. Click **OK** to proceed.
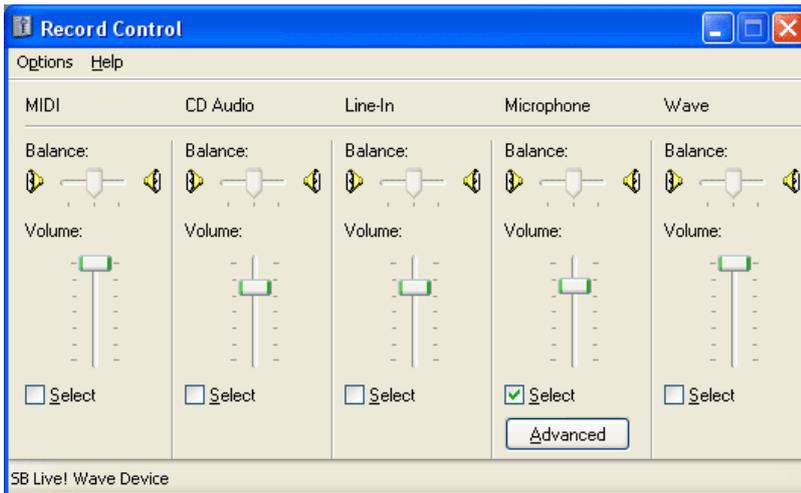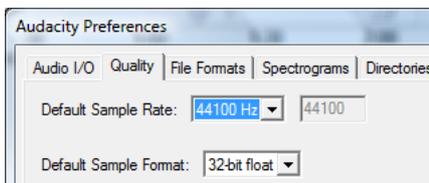
Record audio

You need a microphone connected to the microphone plug on the computer. (There's a mini-jack plug for the microphone with default colour red). Remember the settings as described in the previous section.

There are two important settings in Audacity. Open Audacity and choose **Edit** -> **Preferences**:
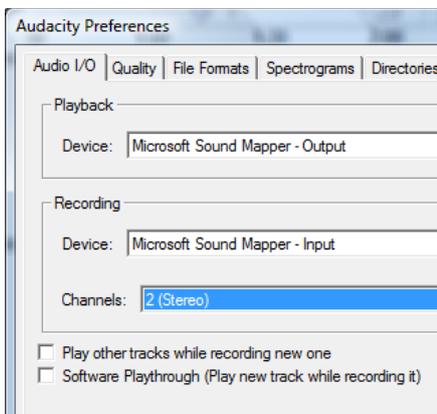

Choose between 2 (Stereo) and 1 (Mono) recording.

Choose recording settings. 44100 Hz is CD quality. Lower the Hz, will cost quality. If you choose 8000 Hz, the sound quality is equal to phone quality. Reducing the Hz, will reduce file size, so consider what you record. Only speech does need 44100 Hz to sound good.

You are now ready to record. Click the **Record** button .

You can follow the recording progress as you record. When you want stop recording, click the **Stop** button , just like an old fashion cassette recorder.
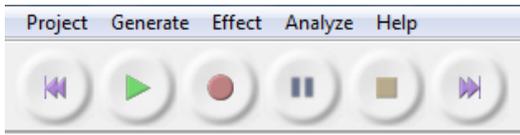
Below you see an example of a stereo recording (2 tracks):

Listen to the clip, by clicking the **Play** button .

If you want to add a new track to your project, just click the Record button again, and follow the procedure, like described before.

For each time you click the **Record** button, a new track will be created.

If you want to add a sound or piece of music to your project, click **Project** -> **Import Audio**. The imported sound or music will have a track of its own.

Cut/crop a clip
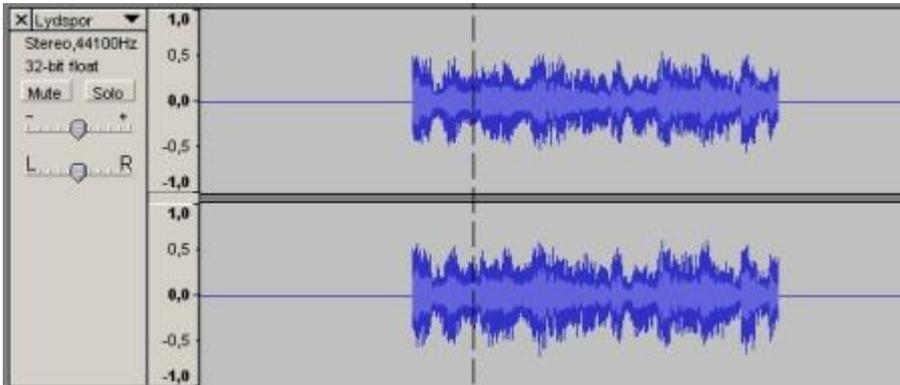
The above sound clip, last about 5½ seconds. First and last 1½ sec. is silence. To cut away the silence gaps, mark the first silence gap by click and hold the left mouse button. Move the mouse from side to side till you are satisfied.

In the above example, the easiest way is to start marking from end of the first silence gap, to the beginning.
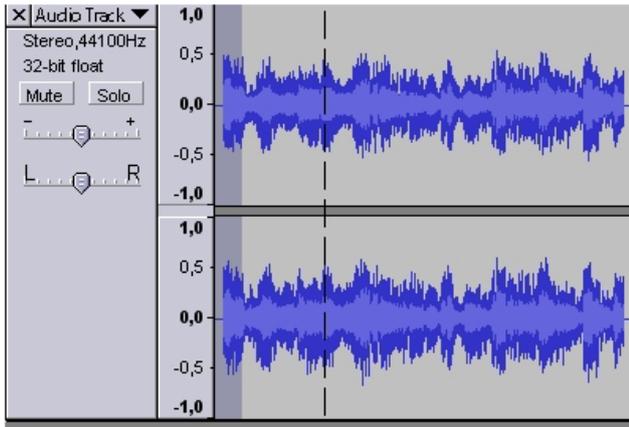
That way, you will make sure to cut the silence gap from the beginning. Cut by clicking or click **Edit** -> **Cut**. Make the same procedure for the last silence gap.
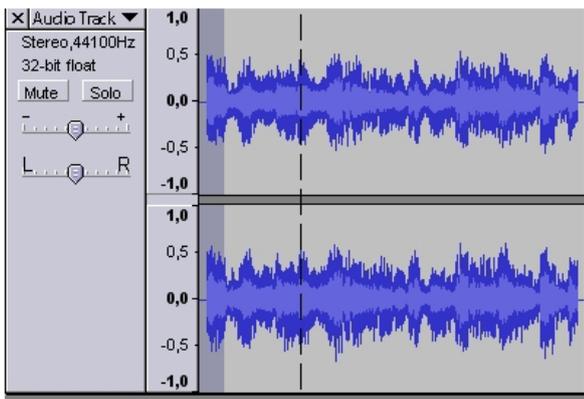
Here's the result:
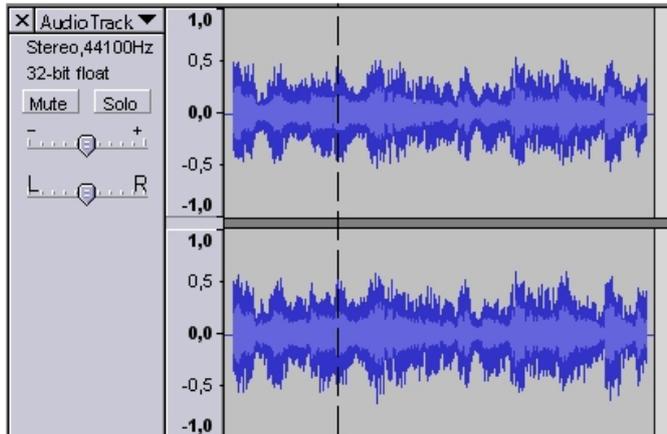
Fade in/out

The clip starts and end very sudden. We can adjust that with Fade in/out. Mark the first quarter of a second:

Choose **Effect** -> **Fade In**.

Mark the last quarter of a second, and choose **Effect** -> **Fade Out**.

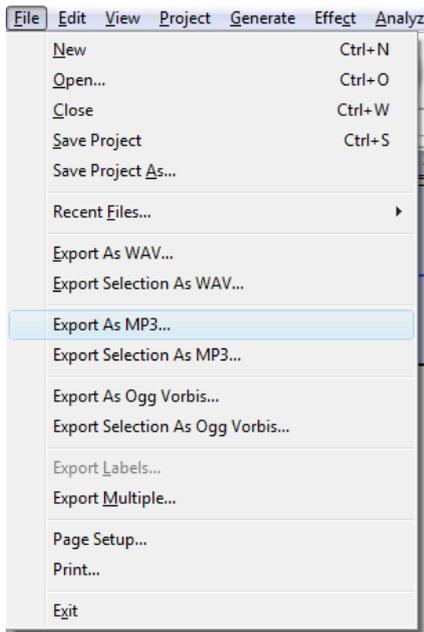Here's the result:

Save project/export audio

A project is "an unfinished clip", you can say. As long as you work on an audio project, you save it as an Audacity project. That way you can still edit each track individually, and of course add or delete tracks. An Audacity project can only be played in Audacity.

When you finish your work, you can export to an audio format that can be played in a media playing program, e.g. Windows Media Player. You can also burn the clip to a CD with a burning program, and then play it in your CD player.

To save a project, click **File -> Save project**. Audacity project is the only option format.

When you finish your project, export to an audio format, e.g. WAV or MP3.

Click **File** -> **Export As MP3**.

File Edit View Project Generate Effect Analyz

New	Ctrl+N
Open...	Ctrl+O
Close	Ctrl+W
Save Project	Ctrl+S
Save Project As...	
Recent Files...	▶
Export As WAV...	
Export Selection As WAV...	
Export As MP3...	
Export Selection As MP3...	
Export As Ogg Vorbis...	
Export Selection As Ogg Vorbis...	
Export Labels...	
Export Multiple...	
Page Setup...	
Print...	
Exit	

WAV is a standard audio format. All media player programs will be able to play this format. WAV is a lossless format, which means the sound quality will not be compromised, when you export to WAV.

MP3 format is a compressed format. This is at the expense of the sound quality. The pros is a small file size, and only a minor loss in quality. A music track from a CD in WAV format, is about 50 MB compared to about 4 MB for a MP3.

MP3 format is ideal for music players with limited space, like the so called MP3 players.

Most players support MP3.