How-To Guide: Beginners Guide on How to Make a Podcast in Reaper

Introduction
Welcome to the How-To tutorial on how to use Reaper. Reaper is a digital audio workstation that is renowned for its full, flexible feature set to create digital audio works anywhere, including your own home. From broadcasts, commercials, sound design, and even for educational purposes, Reaper is an accessible software and perfect for creating digital audio.

Step One: Understanding the Interface

This is the interface of Reaper. It may seem very daunting at first, but be assured that it is not as scary as it seems. Reaper has a simple interface that is great for beginners and more skilled individuals when it comes to creating audio work. Let’s examine each section of reaper in more depth so its interface looks less clustered.
Here we have the left hand corner of the reaper interface. There are 14 icons that can be used to create a basic sound piece.

Going from left to right, the first one is the new project icon and it looks like a piece of paper with a folded corner, with an asterisk above it. This icon allows an individual to create a new project, but just remember to always save your work before you start a new project.

The second icon is the one looks like a disk with a green arrow pointing up and to the right. This is for opening up a current project.

The one following that icon also looks like a disk with a grey arrow pointing down toward it. This is the save project icon.

The fourth icon is called the project settings icon and it looks like another piece of paper with a folded corner, but this one has an “i” in a blue circle. This is a very important icon because it tells all the details about your audio work. It will relay important aspects of sound work that you will need to know of before you start your project. Things such the hertz, bit rate, frame rate, and much more can be located under this icon.

Next up, we have the red arrow with a red “x” which is the undo button, along with the green arrow with green check-mark button, signifying redo placed side by side.

The final icon for that row is the metronome and looks like a white triangle with a green arm tilted to the left, and looks like a metronome.

The next row of icons starts off with the auto-crossfade button and it looks like two tracks blending into each other. This option allows two sound clips to merge together when placed side by side to create one unison piece.

The second icon looks like green boxes with a white chain over them. This is the item group editing. That allows you to edit multiple clips at once.

Ripple editing is the third option in the row of icons and looks like a hand pushing buttons. Over here the ripple option allows you to manipulate the in and out points of the audio clip.
Envelope points (the button with arrows pointing left and right with some symbols in the middle) is the next icon for a user to allow them to be able to control a track’s volume changes smoothly over time.

Grid lines is the icon following that (looks like rows of white dots) and it allows you to see the grid on the audio timeline. These grid lines will allow you to make an accurate cut with time precision.

Snap is the second last icon located on the lower row, which looks like a green horseshoe magnet. This icon allows ones two tracks to snap together instead of accidently making them overlap.

The last icon here is the locking icon, which looks like a lock. This icon allows one to lock a track while mixing another one to make sure that tampering one will not be a problem.

Located at the bottom left corner, there are more icons but these are easier to understand. There are: rewind, fast forward, stop, play and pause buttons. Right beside those buttons we have a red icon which is for recording audio. Lastly for this collection of buttons we have the loop icon. This allows you to loop a certain part of your piece in order for you to edit better, allowing you to fix any clipping that may occur when manipulating the audio clip.

Directly below is the master fader where one can pull the bar up and down to achieve the perfect headroom space to create the most dynamic piece. Headroom space is a term used by many audio professionals. The headroom is the space between the sweet spot, and the distortion ceiling. When the distortion ceiling has exceeded, there will be clipping in the audio. Clipping is another term used and this means that any speaker will not be able to create that level of high frequency. What it will do in return is create a moment of silence for when it does clip or create a static-like noise.

The master fader bar is essential to creating any sort of audio soundtrack because in order to refrain from clipping, you have to move the audio fader bar down. As you may notice, at the top of the bar it says “-inf”. The one located on the right side is the one you will need to watch for to get that sweet spot. The sweet spot in all audio soundtracks is “0.3”. This will give you the most dynamic piece and will not
allow it to clip. Just a reminder, the master fader controls all soundtracks on the open project and not just one. If you are trying to tweak just one soundtrack, use the track number that it was created on.

Step Two: Creating a Podcast

Now here is the true introduction on how to create a podcast on Reaper. Start off by right clicking on the blank space located under the upper left icons. After right clicking, options will appear in a drop-down menu. Click on “insert a new track”. This will allow you to start recording, as explained in the following steps.
After clicking on “inset a new track”, you will see a track displayed on the screen. This track comes with its own fader bar located beside the master fader. This can be used to change the volume of sound clips located in the track as a whole instead of individually adjusting the sound for each clip.

Now that you understand interface, you can start recording. This part is the easiest. Just press the record button and it should pick up your microphone right away (just as long as it is plugged in properly). When you are done recording, just simply press the record button once again to stop it.
After you are content with your recording, play it back and listen carefully to make sure that everything is said the way you want it to. If clips need to be shortened, or adjusted, now would be the time to do so.

After you have finished editing everything, play the whole piece from start to finish but now focusing on the master fader, specifically to see if the audio is clipping. In the image displayed above, we can see that this piece is indeed clipping so by adjusting the master fader to hit 0.3 (the sweet spot), you will ensure that all of the audio will export fine. After adjusting the master fader and reaching 0.03 headroom, you can finally export project (save as an audio file).

Step Three: Rendering and Exporting Your Project

Click **file > render** to start the process. After clicking render, a box will appear with several options.
In the options menu that is pulled down from the render option, you will see several different export options such as the sample rate, channels, bit depth, output format and much more. The only options you need to focus on at this point are the sample rate, bit depth, output format and where the file is being saved.

Click on browse for the directory option. From there you can let Reaper know where to save the project. It is recommended that you have a folder set up on your hard drive specifically for your exported files. Make sure to also change the file name to whatever you would like it to be.

After selecting the save folder, you will need to adjust the sample rate. The safest option is 44100 unless you are aware of a different format that your audio recordings were recorded with.

The next thing to look at is the bit depth. 24 bit PCM is what you will look for. If you are aware of a different bit depth that is needed, then choose that but if not, 24 bit depth is appropriate.

Lastly, look at the output format. This is the type of format you want your work to export into. WAV files are usually the best option because they are quite versatile. Unless otherwise specified, it is best to export your file as WAV.
After figuring out all the logistics of how you want your piece to be rendered, you can safely press **Render**. Another pop-up will appear with the whole piece being rendered in real time. At this point do not press anything until a pop up appears on your screen saying “**REAPER render complete**” (as shown in the image above).

After that, you can close the render pop-up, save the changes to your project file, close the render to file pop-up, and safely close Reaper (if you are finished with your project). You can also check to listen to your file by locating where you have saved it and playing it to make sure that this is indeed what you wanted it to sound like. It is recommended to transfer it to portable media at this point if you have had it stored on a computer in Lyons.

You are now done creating your first podcast on Reaper (which can then be put up online if you wish, or submitted for a class, for example). If you have any other questions, please feel free to ask one of the student employees working at the Lyons New Media Centre help desk or ask about our Media Consultations.