Audio:
Recording the spoken word

The small print

Prerequisites

Time in the workshop is precious – it is an opportunity for you to interact with the workshop leader and other participants through questions and discussions and to share your experiences and concerns. To make the most of this time we sometimes ask you to carry out learning activities ahead of the workshop so that everyone comes into the class with the same basic knowledge. We keep this prior learning to a minimum and often make use of online videos. Online videos provided through LinkedIn Learning can be accessed free of charge by University members anytime, anywhere, through a browser or app.

Your course booking will tell you if any prior learning activity is required. If you don't have an environment where you can do this learning, you can come along to one of our LinkedIn Learning sessions. These are a quiet space where you can work through videos or other workshop resources.

If you arrive for a workshop without having done the prior learning, the workshop leader may suggest that you come back on another session.

Copyright

About the workshop designer

Kieran Suchet has more than twenty years' experience teaching across the UK and Europe. His effective use of communicating ideas through text and digital media has benefitted clients ranging from university students to top level government officials and industrialists. In tandem with his work in bespoke tutoring, Kieran works as an actor and writer and has just launched his own production company Fruit Bat Films.

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1.8	February 2024	Kieran Suchet	Course book updated
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1.3	December 2019	Kieran Suchet	Created

About this workshop

This class will give you an insight into some of the techniques that Audacity facilitates in creating spoken word recordings for uses such as podcasting. It will introduce a workflow of recording, editing, processing, mixing and exporting that will be useful across all your media work.

Audacity is a free, easy-to-use, open-course, multi-track audio editor and recorder for Windows, Mac OS X and other operating systems. You can use Audacity to:

Record live audio.

Trim and edit your recordings.

Cut, copy or mix sounds together.

And more!

Audacity is free software, developed by a group of volunteers and distributed under the [GNU General Public License (GPL)](#).

What you will learn

How to source, record, save, edit, process and export spoken word audio for a wide variety of purposes.

What you need to know

If you need to review these activities, LinkedIn Learning is a great place to get guidance. There is an activity with relevant videos in the IT Learning Portfolio: visit [IT Learning Portfolio | IT Learning Centre (ox.ac.uk)](#) and search for "Audacity".

The resources you need

Exercise instruction will be available in class or you can create and use your own Audacity project to try the techniques taught. The given exercises are excellent and have a step by step approach that many will find useful.

Learning objectives

This workshop has the following learning objectives.

Learning objective One – Recording Audio
Learning objective Two – Editing audio
Learning objective Three –Processing audio
Learning objective Four – Multitrack audio
Learning objective Five – Shifting & manipulating audio
Learning objective Six – Labelling audio
Learning objective Seven – Saving and archiving audio

Our teaching resources if relevant for this course will help you in achieving class goals. They can all be downloaded from the ITLC Portfolio at: IT Learning Portfolio | IT Learning Centre (ox.ac.uk)
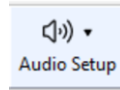
Creative Commons License music can be found at http://www.jamendo.com

Creative Commons License sound effects can be found at http://www.zapsplat.com
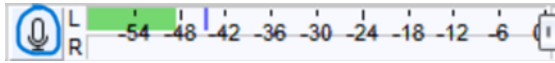
Learning objective One – Recording Audio

To record:

Make sure your USB headset is plugged in and check that it is selected as your Recording and Playback device here

Click the microphone icon in the Record Meter to start monitoring audio levels as in the following image:

Press the red Record button to record.

Audacity will record until you stop the recording using the Stop button.

Learning objective Two – Editing audio

When you edit material you first have to select it. Click and drag your mouse over the audio material in a track to select it. The audio will appear with a lighter background.

Trimming

Deleting silence at the beginning of the file. Click and drag to select the beginning section of the track where there is no wanted audio and then click backspace to delete it. You can select and delete material from anywhere in the track by doing this including the end.

Cut, Copy and Paste

You can cut or copy material and paste to other tracks or other parts of the same track: To select the part you wish to cut, copy or paste to, use the selection tool.

Press and hold the left mouse button while you drag the mouse to mark an area. This area is now lighter than the surrounding area of the clip. You can press the space bar to listen to the audio in the marked area to audition it to make sure you are happy with the selection.

You can extend or contract your selection by holding down the SHIFT button and clicking on the area you wish your selection to extend or contract to.

Cut Copy Paste

Cut the selection by selecting "Cut" from the Edit menu ... or press CTRL+X. To undo this operation, select Undo in the Edit menu or press CTRL+Z. Copy (CTRL+C) will copy the selection to the clipboard. You can then paste that data back in to a new track (or at the end of an existing track) by selecting Paste in the Edit menu, or press CTRL+V (replace CTRL with CMD for a mac).

Learning objective Three – processing audio

Compression

Simply put, Compression reduces the difference/dynamic range between the quiet parts and loudest parts of a wave form – ie. It changes the volume over time in varying amounts

Select the whole track and choose Effects menu, Compression. Compress the whole signal on the lowest ratio as shown in class.

Normalising a weak audio track

Click in the track detail pane to select the entire track. Choose Effects, Normalize. Normalising changes the overall volume by a fixed amount to a target level.

This will increase the volume of the entire audio file proportionately, so that the signal peaks at – 3db (or the default setting). This leaves a little headroom for further processing. This is a quick and efficient way of boosting a weak audio recording's signal to a useable level. One downside to using this tool is that it will of course boost any background noise as well.

Background Noise Reduction

This tool will help to reduce consistent background noise (Hums/fans/traffic/whines). Collect the noise profile of the unwanted sound. Highlight the whole track. Use the NR, Sensitivity, Freq smoothing sliders to find the right audio balance and Preview the new audio landscape. Press OK to apply the changes.
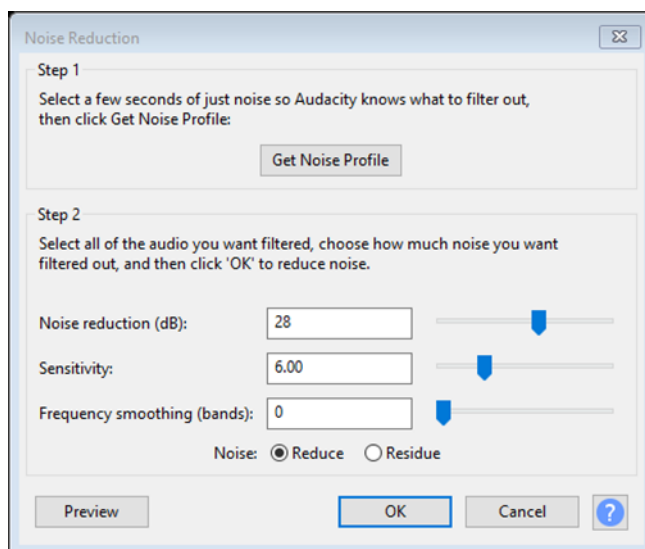
Learning objective Four – Multitrack Audio

Multitrack audio recording and editing is available in Audacity. Your edit window will look a little similar to the image below:

Create a free account at [Jamendo Music | Free music downloads](). Download a free tune and drag and drop it into Audacity. It will open as a new track.

Use the Gain function on the left to adjust the volume level of the track. Select a short segment from the beginning of the music track and then choose Effect, Fade In. This is very useful to avoid a surprisingly loud signal from the start. It allows the listener time to adjust to what they will be hearing. Do the same at the end of the music track (after your VO has finished) but this time choose Effect, Fade Out.

Create a free account at [Zapsplat.com](). Download a free sound effect and drag and drop it into Audacity. It will open as a new track.

Use the Gain function on the left to adjust the volume level of the sound effect.

Audio clips can be moved both horizontally and vertically. Hover the mouse over the top of the clip until the cursor becomes a hand. Hold left click and drag clip to desired location and release.
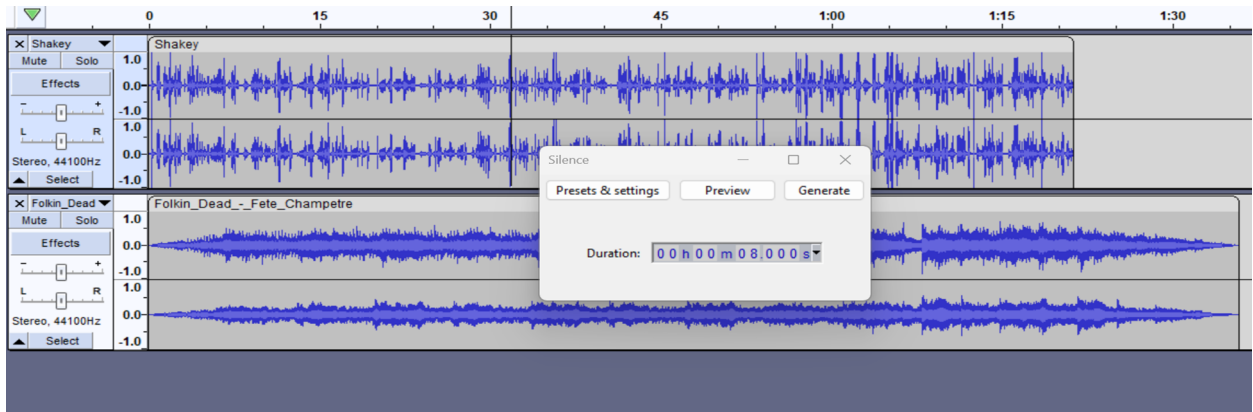
Both soundtrack and sound effect can be trimmed to the required duration.
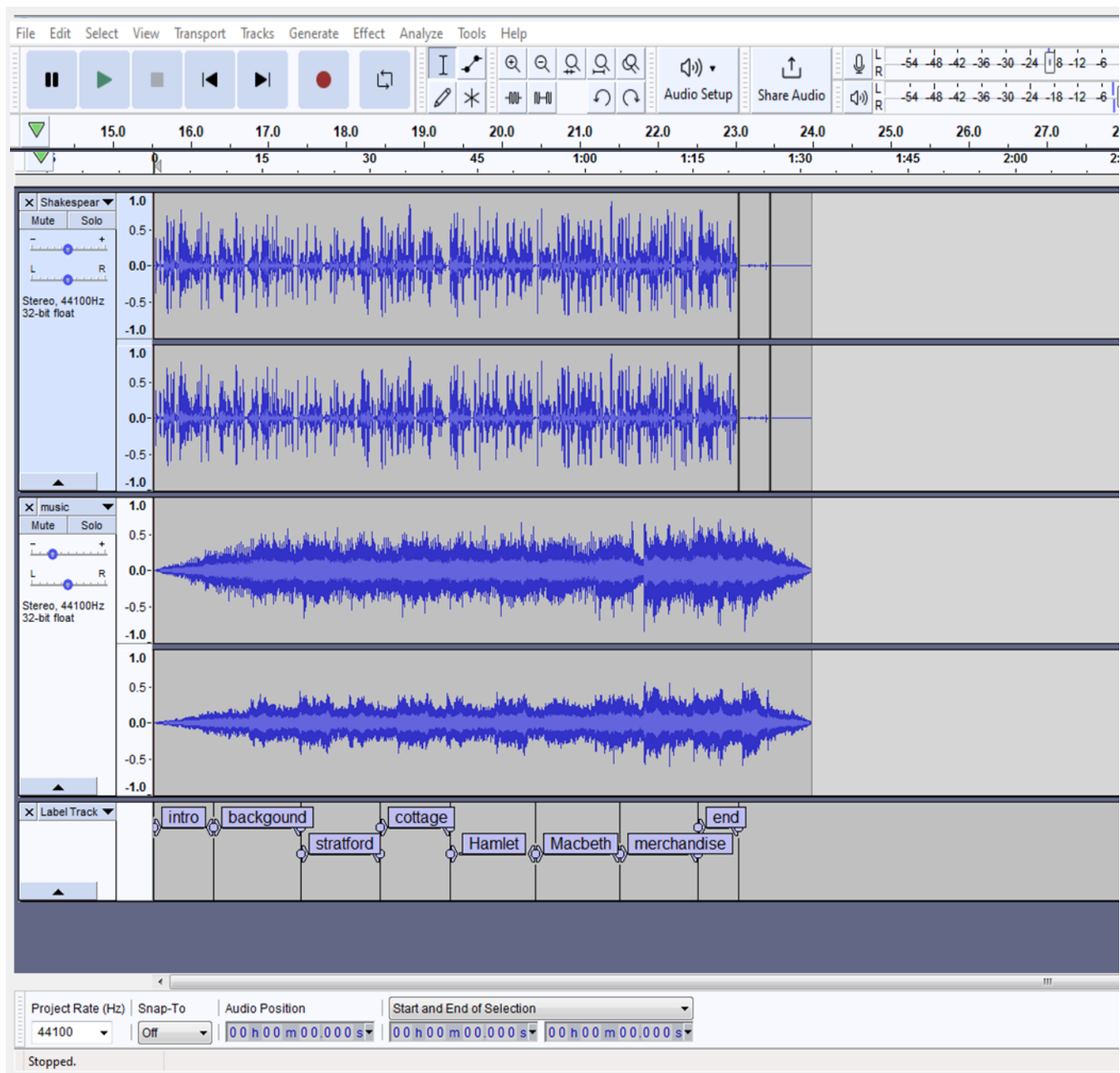
## Learning objective Five – Shifting and manipulating audio.

Place the play head where you want to create a silence.

From the menu choose Generate – Silence

In the timer dropdown choose seconds and the desired time (approx. 10secs)

If you need to alter the volume of a clip in specific places (keyframing), use the envelope tool to do so. Choose the Envelope tool and make 4 points on the music track. Drag the second and third points (Key frames) to adjust the volume in that area.
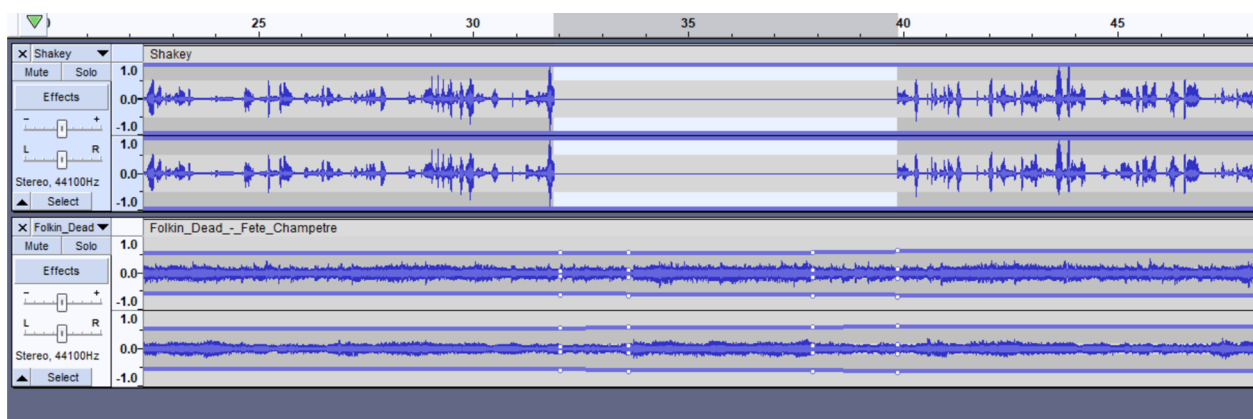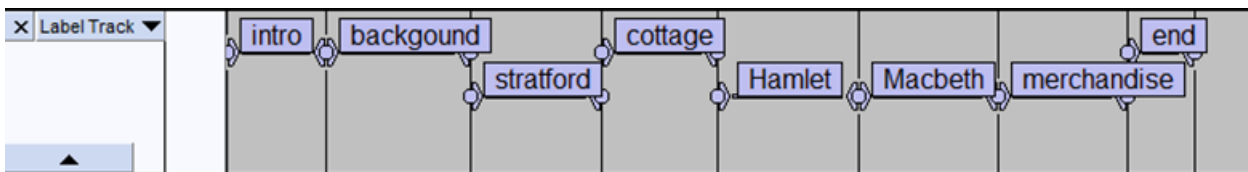
Learning objective Six – Labelling audio

Mark out different narrative parts (chapters) of your recording by creating labels.

Hold CTRL + B to create a new label track.

Stretch, move and annotate each label so navigating through your recording is made easier.

Learning objective Seven – Saving and archiving audio

You can save your work as an Audacity project (*.aup file) that can re-opened and edited as many times as you wish, or you can export the audio to file as a wav, mp3 or ogg file. The most common export for podcasting will be to mp3 which is a compressed file format that keeps quality acceptable whilst reducing the file size so it can be accessed easily from the web.

Choose file menu, Export As, wav (best quality), mp3 or .ogg

Wav files take up a lot of space but are not compressed. They retain the original projects quality and are the best choice for archiving material for re-deployment in the future. The Mp3 file is a good compromise. The compression rate can be set from very low (64 kbps) to good quality (320 kbps). .Ogg is another compressed audio file format.

If you Export As an Mp3, you will have the option of adding tags (metadata) which will then appear in some Mp3 players displays. It is always worth filling these details in even though they are couched in musical terms. You can add useful information here that documents the file's properties. Change the Genre to alternative or other. Don't forget CC attribution... Tip: **TASL**, which stands for **T**itle, **A**uthor, **S**ource, **L**icense

Further information

Getting extra help

Course Clinics

The IT Learning Centre offers bookable clinics where you can get pre- or post-course advice.

Study Videos from LinkedIn Learning

On our website, you will find our collection of self-service courses and resources. This includes providing LinkedIn Learning video-based courses free to all members of the University. Visit skills.it.ox.ac.uk/linkedin-learning and sign in with your Single Sign-On (SSO) credentials.

Some courses recommend pre- and/or post-course activities to support your learning. You can watch the online videos anywhere, anytime, and even download them onto a tablet or smartphone for off-line viewing.

About the IT Learning Portfolio online

Many of the resources used in the IT Learning Centre courses and workshops are made available as Open Educational Resources (OER) via our Portfolio website at IT Learning Portfolio | IT Learning Centre (ox.ac.uk)

Find the pre-course activity for this course in the IT Learning Portfolio: visit skills.it.ox.ac.uk/it-learning-portfolio and search for "Audacity activity".

About the IT Learning Centre

The IT Learning Centre delivers over 100 IT-related teacher-led courses, which are provided in our teaching rooms and online, and we give you access to thousands of on-line self-service courses through LinkedIn Learning.

Our team of teachers have backgrounds in academia, research, business and education and are supported by other experts from around the University and beyond.

Our courses are open to all members of the University at a small charge. Where resources allow, we can deliver closed courses to departments and colleges, which can be more cost-effective than signing up individually. We can also customize courses to suit your needs.

Our fully-equipped suite of seven teaching and training rooms are available for hire for your own events and courses.

For more information, contact us at courses@it.ox.ac.uk

About IT Customer Services

The IT Learning Centre is part of the Customer Services Group. The group provides the main user support services for the department, assisting all staff and students within the University as well as retired staff and other users of University IT services. It supports all the services offered by IT Services plus general IT support queries from any user, working in collaboration with local IT support units.

The Customer Services Group also offers a data back-up service; an online shop; and a PC maintenance scheme. Customer Services is further responsible for desktop computing services – for staff and in public/shared areas – throughout UAS and the Bodleian Libraries.

Audacity Keyboard Shortcuts

(For Mac OS: use CMD for CTRL)

File Commands	
CTRL+N	New Project
CTRL+O	Open Project
CTRL+W	Close Project
CTRL+S	Save Project
CTRL+P	Preferences

Editing Tools	
F1	Selection Tool
F2	Envelope Tool
F3	Editing Tool
F4	Zoom Tool
F5	Timeshift Tool
F6	Multi Tool
D	cycle tool forward
A	cycle tool backward

Edit Commands	
CTRL+Z	Undo
CTRL+Y	Redo (Windows)
CTRL+SHFT+Z	Redo (Mac/Unix)
CTRL+X	Cut
CTRL+C	Copy
CTRL+V	Paste
CTRL+K or DELETE	Delete
CTRL+L	Silence

CTRL+D	Duplicate
CTRL+A	Select All
Z	Find Zero Crossings

Navigation, Playback & Recording

SPACE	Play/Stop
SHFT+SPACE or L	Loop
P	Pause
R	Record
1	Preview 1 second
B	Play From Cursor To Selection
CTRL+1	Zoom In
CTRL+2	Zoom Normal
CTRL+3	Zoom Out
CTRL+F	Fit In Window
CTRL+SHFT+F	Fit Vertically

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1

Resources for your learning

Activities for you to practice today
 In the coursebook
 Work at your own pace!
 Be selective

Videos with today's topics   **Linked** in Learning

Follow-up work
 Continue with exercises after the session
 Bookable Course Clinics later

2

Your safety and comfort are important

Where is the fire exit?

Please tell us if anything doesn't work

The welcome area has vending machines and a water cooler

The toilets are along the corridor outside the teaching rooms

3

This session will cover …

Recording live audio
Trimming & editing audio
Cutting, copying & processing audio
Mixing & labelling audio
Exporting audio
Having fun!

4

Equipment

£10+

£20+

£100+

£120+

Traditional Remote | Riverside.fm

Record on separate devices locally | Local recording high-quality

Upload files to sync in post production | No hassle, much more central
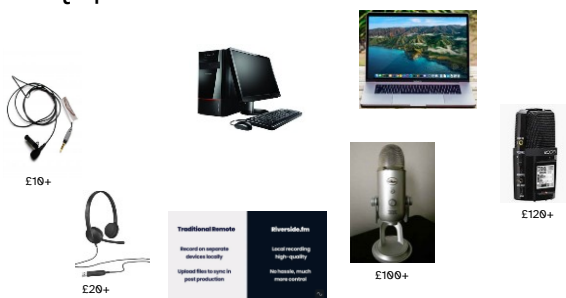
5
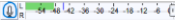
It's time to record!

Attach headset
Open Audacity – select [Audio Setup] to check input/output is set to your USB headset
Select the mic in the record meter to start monitoring sound
Hit RECORD button to start
SPEAK :– be yourself ☺
Hit STOP button to pause or finish
Save Project As: EXAMPLE.aup

6

Time to playback & edit!

Press SPACEBAR or ⏸ ▶ ⏹ ⏮ ⏭ to playback
Zoom in/out to your Playhead 🔍 🔍 🔍 🔍
Trim/delete 'silences' at beginning & end and any other 'muffles' by…
…highlighting (press & hold left mouse button & drag) these areas & pressing DELETE
Goto: Edit-Undo to go back a step…or click ↺
NB To highlight the whole track click here ➔

7

Cutting, copying & pasting

Highlight section you wish to move

Select 'cut' from the Edit menu (CTRL+X)

Or select 'copy' (CTRL+C)

Click where you want place the chosen audio

Select 'paste' from the edit menu (CTRL+V)

8

Compressing and Normalising

Click in the left (track info) bar – this will highlight the whole track.

Select Compressor from the Effects menu

Press Ok

Select Normalize from the Effects menu

Press Ok

9

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Background Noise Reduction

If a consistent background noise is audible (air-con, chatter, traffic)

Drag to highlight a sample of the background noise only

Click Effect – Noise reduction – Get Noise Profile

Highlight whole/affected recording

Click Effect – Noise reduction - OK

10

Working with Multi-tracks

Download an MP3 music file to the desktop from Jamendo.com (*you'll need to create a free account*)

Import the MP3 into your project –it will create a new track

Adjust the master volumes so that the music does not drown out the VO

Trim the track so it is approx. 10 secs longer than the vocal track

Add a Fade In of approx. 5 secs

Add a Fade out of approx. 10m secs after vocals have finished

11

Working with Multi-tracks

Download an MP3 sound effect(s) from Zapsplat.com (*you'll need to create a free account)*

Drag and drop the MP3 into your project –it will create a new track

Remember to obey the CC license types.

Put attribution in your Credits or Metadata.

12

Working with Multi-tracks:
time shifting/volume control/generating silence

- Hover mouse over top of clips until the cursor becomes a hand – now move the location of the audio tracks by dragging them.

- Find a place in your recording to generate a silence...

- Select the Envelope tool and adjust the volume of different parts of the tracks.

13

Adding labels to the project

Play through vocal track

Note any thematic/topical change and mark or highlight area

Click CTRL + B and type in data/name/title

Place cursor over arrow to stretch label to correspond to topic length

Click and hold on middle of label to move it

Click ✕ Label Track ▼ dropdown to change font

14

Saving/Importing/Exporting

Save your finished audio to the desktop:

1) Save Project As: EXAMPLE.aup
2) THEN...
3) Export as MP3: File >Export>Export as MP3
4) Complete/check your Metadata

15

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Find the resources for this workshop
in our IT Learning Portfolio
Download the files
(and more) from the
IT Learning Portfolio at

skills.it.ox.ac.uk/it-learning-portfolio

16

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17

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