**How to source and create sound effects and music for your production**

The idea of this document is to give you the knowledge and skills to source or create your sound effects, music and soundscapes for your performances.

**Sourcing sound**

There are several different ways to source sound for your production as listed below.

**Internet tools**

Websites that have loyalty free sounds and sounds which are licensed for anyone to use including Sound Bible: <http://soundbible.com> and Free Sounds: <https://freesound.org/> and iTunes for paid music tracks and sound effects

University/PCI resources: BBC sound effects library (ask pci technicians for access); Logic Pro sound effects (Apple iMac in AV suite); CD’s – music lending library, friends and family collections.

**Recording your own effects**

The PCI technical store has several audio recorders to lend out to students that can be used to record sounds to make sound effects. There are 2 main makes of audio recorder we have:

Edirol HR09/R05 – these are simple recorders that have an inbuilt stereo mic to record. They have a SD memory card which has 2GB (actually quite a lot of space for audio) and also an inbuilt effect as well. You can record in either .wav (cd audio quality) or .mp3 (we advise that you avoid mp3 for performance as it is a compressed file and may lose quality when played through loud speaker systems like the theatre system).   
Tracks can be downloaded on to a computer via the usb cable

Tascam DR40 – This is a more highly spec’d audio recorder with 2 balanced mic/line inputs as well as the inbuilt stereo mics, making it possible to become a 4 track recorder. The inbuilt mics can be set in two different configurations. If you want to record voices this is a good alternative to using a computer and audio interface. You will need a mic and cable but these can also be borrowed from the technical store. Again when you have recorded your sound you can download them onto a computer via a usb cable.

You can also record sounds if you are out and about on your mobile phone – most phones using either the standard voice memo app or there are many free apps to chose from. You will need to get the sounds out of the app – usually by sharing or via email.

It is also possible to use a video camera and capture the audio only in the video editing programme you have.

**Editing your effects/music**

Choosing an editor – this will depend on

1. What platform you want to work on
2. Whether you are using your own computer or wish to access the school’s equipment.

The school has an AV suite, which has both macs and PC’s for students to use. There is a iMac dedicated to sound which has Pro Tools and Logic Pro on it. There is also a PC that has Adobe Audition on it. If you wish to use any of these please talk to a technician who will give you a little tour of the suite and show you any software you wish to use.

If you are using your own computer then there are several free programmes that can be used to edit audio. The most popular universal audio editing software programme is Audacity

<https://www.audacityteam.org/>

This is very easy to use and quite versatile.

There is also Garageband on the mac which allows you to create music using the virtual instruments and also gives you access to their effects (ie reverb and eq).

**Creating your own music/soundscape**

If you wish to create some music or a soundscape for your production then the easiest way to do this is by using the library of loops that most DAW (digital audio workstations) have. Garageband is a simple version of a DAW but has Apple’s loops and access to some virtual instrument, which means you can create something for an electronic piano or a Saxophone even if you can’t play one of these instruments**.** If you are working on a PC and don’t have access to Garageband there is an online music creation programme called Soundtrap <https://www.soundtrap.com/>   
Of course if you play and instrument and want to create some music you can always use an audio recorder to record and put it into the computer afterwards.

Tip! When recording find the quietest room to record – although it is possible to edit out some noises it is a lot easier if the quality of the recording is the best that it can be!

**Outputing your sound**

There are different types of files that can be created from audio editing programmes and choosing which type of file is dependant on what you are doing with your sound eg are you creating a CD to play in a computer or cd player, using qlab to output your sound in the theatre or another type of cueing programme or are you wanting to play it on a device such as a phone or mp3 player.

For CD quality, choose .wav or.aiff or aac file types – these files will give the best quality when playing through large speakers (PA systems). Qlab will also accept these plus a lot more.

MP3 files are compressed and are useful if you are using a device where you don’t have much data space such as an mp3 player or phone. However they are not so good through large speakers and are best kept to when you intend to play the sound only through computer speakers or headphones.