

## Recording + Audacity Week 4 Assignment

Using recordings that you make, and the inspiration of Ben Burtt's clever work in *Starwars*, edit and combine your recordings to create any four of the Foley-type sounds listed below. It is suggested you try the following effects in Audacity: change pitch, speed and tempo, reverse, echo. You can also use Audacity to generate one constituent sound in each category.

1. An explosion in a tunnel - exactly 5 seconds
2. An air driven elevator starting & traveling & coming to a stop - exactly 10 seconds
3. A car engine that is misfiring - exactly 10 sec.
4. A high-speed train leaving the tracks and landing in water - exactly 10 seconds
5. A three-legged walking machine with loose parts - exactly 10 seconds
6. An underwater vacuum cleaner accidentally sucking up some large rocks - exactly 10 seconds
7. An early version of the impulse engine, as used by the starship Enterprise, that didn't work out so well. Your sound should include it not working out so well. - exactly 10 seconds

*Time permitting, there will be extra credit points awarded for those sounds that meet the criteria below and are also voted class favorites in each of the seven categories.*

### Criteria for all four of your Foley sounds:

- No clipping - but all sounds at about 60% amplitude
- Each Foley sound must include at least one sound that you have recorded.
- Each sound must be made up of at least two separate sound samples, one of which can be a tone or noise sample.
- The constituent sound used in each Foley sound should be edited so that it is no longer recognizable.
- Each Foley sound should have smooth starts/ends and transitions.
- Save each sound as an MP3
- Name the file, substituting your name and the sound number from the list of 6, as the elevator sound in this example: *w4foley2jbraukmann.mp3*

**Also turn in a one-page written document** with a short clear explanation of what is in each of your four Foley sounds. Use an illustration of the sound envelope with your secrets explained. This can be done neatly with pen or pencil.

---

## Reading Assignment From Your Text

### ***Ch4 Meet the Mixer***

Almost all digital editing software uses a mixer metaphor, or at least terminology related to analog mixers. So this chapter is at the heart of digital audio editing. An analog mixer is also the heart of any live PA system. A "desk" is a large mixer, the type you see in pictures of recording studios.

What are the three types of mixer inputs? (answer: Mic Line/Instrument Hi-Z)

What is a *trim* control? (Note that this is often called a *gain* control.)

What is a *channel strip*? What do we usually find in it?

What is meant by *input* and by *output*?

Here are some more terms used in this part of the book: • *Prefader* means the signal is taken before the fader control gets it. So that signal is always full strength, even if the fader is turned down. • *Dry* means no effects (like reverb for instance) have been applied. • A *kick drum* is the large drum on the floor in a typical drum kit. It is not really kicked, but it is in a position where it could be kicked by the drummer!

• A *bus* is simply a name for a point where a sound signal can be sent to, or picked up at. In the old analog days, it would be a heavy wire that ran below (and across) all of the channels. Each channel could be switched to it or not.

### ***Ch6 Understanding Microphones***

Although it is not specifically covered in this chapter, it is important that you can interpret a microphone's frequency response graph. This is simply a graph that shows how a microphone's signal output goes up or down as the frequency of the sound hitting the microphone changes. In other words, if a low-pitched sound or a high-pitched sound hits the microphone at the same energy level, is the electrical output of the microphone the same voltage each time? It is the main factor in microphones sounding different from each other.

What is the basic technology (construction type) and sound characteristics of each of the following microphone types:

*Condenser*

*Boundary*

*Dynamic*

*Ribbon*

What is phantom power and which mic type needs it?

Compare the useful characteristics of large and small diaphragm condenser mics.

What is meant by the following polarity patterns?

*Omnidirectional*

*Cardioid*

*Figure-8*

Be able to explain a microphone *polar graph*.

When would a *proximity effect* be bad? When might it be useful?

What *dynamic* mic is most recommended?

Shure SM57

Why might you use a *compressor* when recording?

What is a *pop filter*?