

DESN 275 Digital Sound Unit 1.2

Assignments: Week 2 (Short Week)

- Read pp 24-30 in Mixing Engineer's Hndbk on EQ
- Read pp 39-46 and pp 48-51 in the Mixing Engineer's Handbook on Reverb
- Read Chapter 9 on Monitoring in the Mixing Engineer's Handbook.

For more in-depth information, you may enjoy reading the article on the class web site regarding studio monitor speakers.

Audacity Assignment 1: Create an MP3

You are given the assignment to create a sample sound track for the following sound only scene. Footsteps are heard for a person walking slowly through a large room with hard surfaces such as stone (about 5-7 seconds). Then a door is opened into a wood-paneled hallway. The very faint sound of music is coming from somewhere down the hallway. The door closes behind. The music is muted and indistinct. Footsteps accompany the listener down the hallway for about 7-10 seconds while the music, still muted, gets a little louder. A latch is turned and a door is opened allowing the music to be heard clearly as if the band is playing in this next chamber, along with the sounds of many people partying (5-7 seconds). This final chamber has softer surfaces. You choose your own ending for this scene.

Tips for Assignment 1:

- Calculate for a large room about 100ft. square. Use reverb, delay, possibly EQ.
- As the first door closes, the acoustics change. Recalculate or guesstimate reverb delay and EQ.
- "Muted and indistinct" music would be dramatically limited in frequency range, especially lacking upper frequencies.
- Always consider using fades on sound elements, even if they are very quick.
- A "softer" room would not have nearly as much delay or reverb.
- Don't rush the transitions. It takes time to open and walk through a door.

Audacity Assignment 2: Create an MP3

You are given a music file that annoys listeners because it sounds too "tinny" or "loud." Use equalization to improve it so that it sounds more balanced across the frequency spectrum, even when played over inexpensive computer speakers.

Quiz Next Wednesday: Week 1 study questions, plus EQ, Reverb, and monitors speaker topics.

Monday, January 4, 2010

Study Questions on EQ - Equalizing Sound

What are the six general uses for EQs?

Which frequency range would you try to adjust if the sound was too harsh, too brilliant, too heavy/boomy, or not warm enough?

too harsh 500 Hz *too brilliant* 10K Hz

too heavy/boomy 40 Hz

not warm enough? 200 Hz

Which frequency range usually needs only slight adjustments because the human ear is most sensitive to this range? 1K-3K

What is usually better with EQ, *cutting* or *boosting*, and why?

If you were given a sound file that needed EQ help, be able to sketch an EQ "curve" that would roughly match one that you would use on Audacity's EQ tool to solve the problem, and provide the EQ help.

What EQ would you use to make a sound stand out more?

What EQ to make a sound blend in more?

What does a *spectrum analyzer* tell you?

Questions on Spatial Effects

Describe *delay*, *echo*, and *reverb* (also called *reverberation*).

What do these settings do to the sound?

Delay Reverb Time

Damping Bandwidth

Dry – Wet Hall – Room – Plate

How can delay and reverb help you simulate room size and surface types?

What does reverb do to an instrument or object sound's *placement* in a stereo mix?

Does reverb change the original sound? Explain

Questions on Monitor Speakers

Terms to learn:

near or close-field,

de-coupling the speaker,

frequency balance,

What dB levels do professional engineers recommend listening to your mixes?

What to watch out for when comparing speakers, and why are these issues important to you.