**025:250 COMPOSITION: ELECTRONIC MEDIA I**
**Fall 2009**
Plug-ins in Pro Tools

1. Purpose and history of electronic processing and plug-ins.
   a. Make promising, but problematic sounds seem less offensive and more expressive.
   b. Early electronic pioneers, such as Pierre Schaffer, used filters, echo chambers reverb plates, variable tape speed to enrich their sonic language.
   c. Tape editing remained the most effective ways of transforming sounds.
   d. Plug-ins also use in video production software such as Final Cut and After Effects.
   e. Where to find plug-ins.

2. The most frequently used types of plug-ins for electronic music are discussed below.
   a. Graphic Equalizer
   b. Pitch Shifter
   c. Time Stretcher
   d. Reverb
   e. Normalize

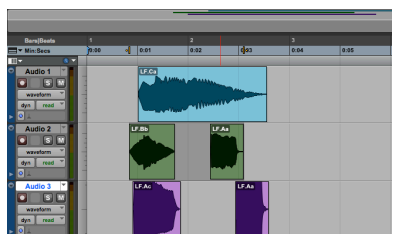3. Below are 6 ways of choosing a sound(s) to be processed.
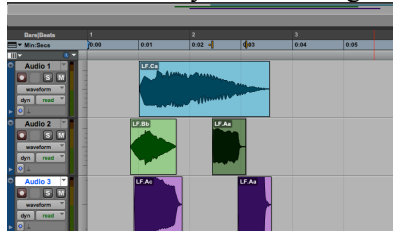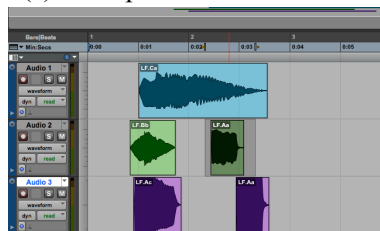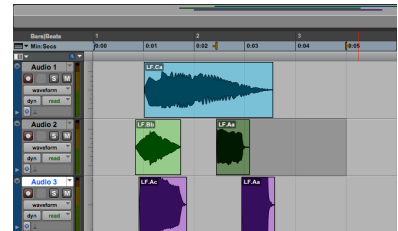
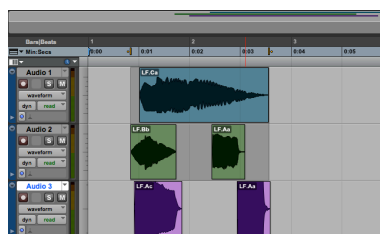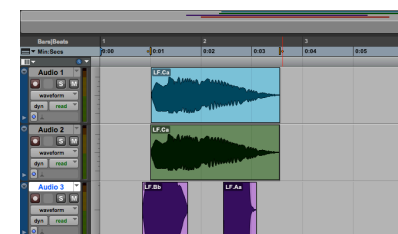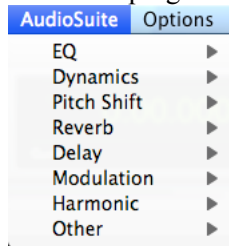Ex. a   Ex. b   Ex. C

Ex. d   Ex. e   Ex. f

   a. The region is highlighted with the grabber. This is the most common method, since it automatically highlights the beginning and ending of the region.
   b. The region is highlighted by click-dragging with the I-beam cursor. This is more imprecise than the method above. A region that is selected this way will produce a processed file that begins earlier in time than the original region.
   c. The region is first selected with the grabber, then with the I-beam cursor shift-drag-release extra silence is added to the end. This method should be used when processing with reverb.
   d. Two regions are selected. The first region is selected with the grabber. Then holding down the shift key, the second region is added. Both files can be processed at the same time, as discussed later.
   e. A group of regions is selected by either shift-clicking with the grabber or click-dragging with the I-beam cursor. All the regions will be processed together.
   f. The region is copied and pasted in the track below. The copied region is processed, leaving the original untouched. This allows the dry and wet regions to be mixed and panned independently. (Dry and wet are terms that will be discussed in class.)

3. The EMS plug-ins are found by pulling down the AudioSuite menu, as shown below.

AudioSuite	Options	
EQ		▶
Dynamics		▶
Pitch Shift		▶
Reverb		▶
Delay		▶
Modulation		▶
Harmonic		▶
Other		▶

2. To prepare to bounce tracks to a mono or stereo soundfile, do the following.
    a. Set the automated volume to desired levels (what you hear is what you get).
    b. Mute, unmute, solo, and unsolo tracks as desired (what you hear is what you get)
    c. Make sure you understand where the output of each track is going (as dicussed later in class)
    d. With the I-beam cursor, click anywhere in the edit window or timeline above at the time of which the bounce should end. Hold the mouse down.
    e. Still holding the mouse, drap it to the left until you reach either the beginning of the edit window or the starting point of the bounce. The edit window should look like the one below:
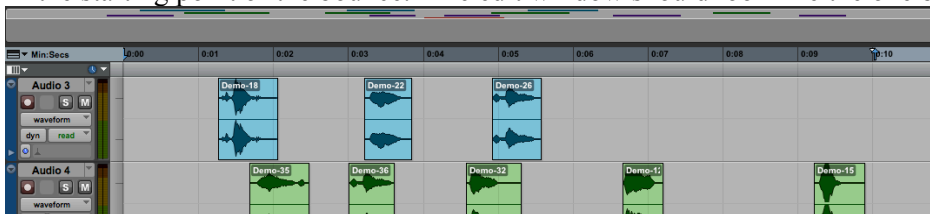
    f. Notice that the time ruler is darkened between the beginning and ending of the bounce area.
    g. Consider that dragging from right to left is often better than dragging from left to right. This is because it is easier to drag from the right up to zero at the beginning than to find the zero beginning point and drag to the right.
    h. Release the mouse. A window like the one shown below in Step 3 will appear.

3. To bounce the tracks, do the following.
    a. Select File>Bounce to>Disk. NOTE: opt cmd B is the key command. But do not confuse it with cmd shift B

which clears the regions.

b. After File>Bounce to>Disk, a window like the one below will appear:
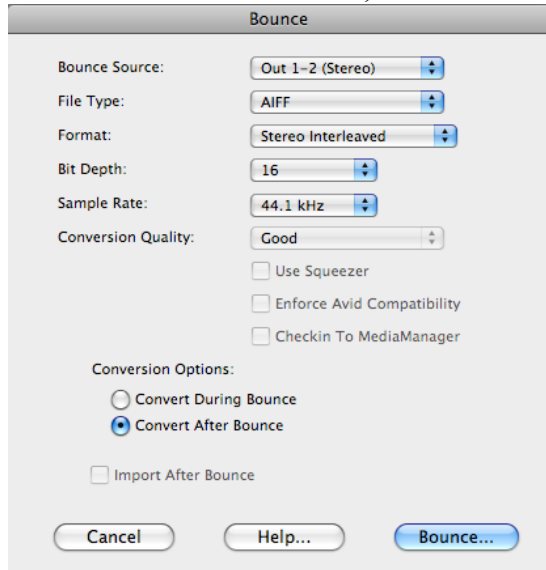
c. Discussion of bounce options.
   i. Bounce Source
   ii. File Type
   iii. Bit Depth
   iv. Sample Rate
   v. Conversion Quality
   vi. Conversion Options