025:250 COMPOSITION: ELECTRONIC MEDIA I
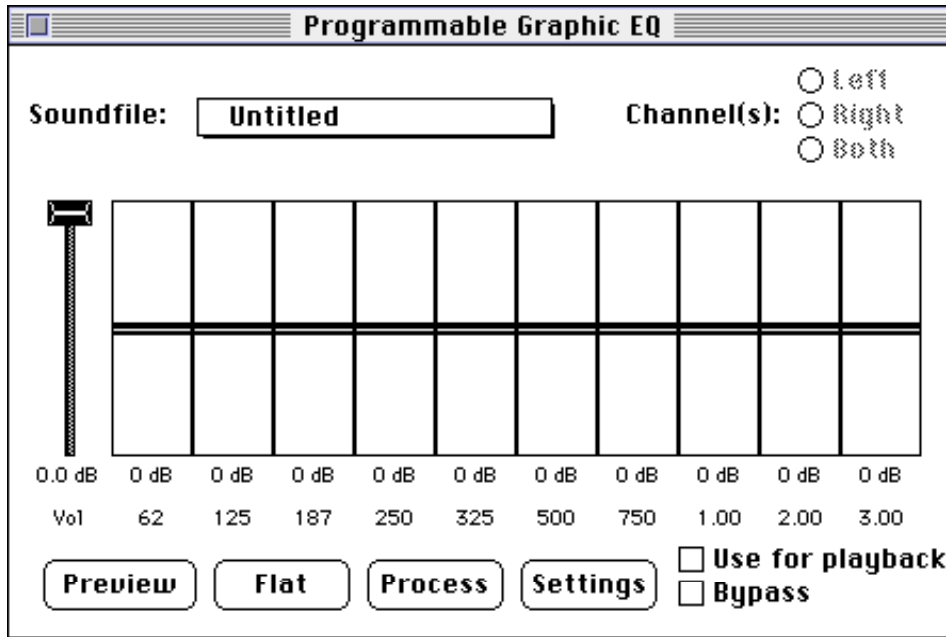**Assignment 5**
Due Sept. 23, 1996

Purpose: To clean up sounds in "YI.Assign.4" using Sound Designer's Graphic EQ and Parametric EQ.

1) Do some housekeeping by:

   a) backing up any personal files on the EMS drive, dragging them to the trash, then emptying the trash.

   b) arranging your Zip disk into folders and subfolders containing your assignments, work copies, and backup copies. Make the Zip window active, pull down the **View** menu, and select **by name**. Your files and folders will now be displayed hierarchically.

2) Highlight your file "YI.Assign.4" and type **cmd d** to make a duplicate. Notice that the duplicate is now named "YI.Assign.4 copy". Rename this file as "YI.Assign.5" and place it in a new folder.

3) Open "YI.Assign.5" and remove any clicks as follows:

   a) highlight a sound that has a click in it

   b) expand the time scale of the screen so that you can see small jagged angles in the waveform that do not conform to the triangle wave at that frequency

   c) highlight exactly on cycle in which the click occurs and **cut** it.

   d) repeat a-c for any other clicks that occur.

4) If Step 3 is not satifactory, go back to the original Sawtooth Pitches folder and repaste the desired sound. Confirm at this moment that a click does or does not occur. If it does not occur, save this file under a backup name. Return to this file if a click appears in this sound in later versions of the file.

5) Possible workaround solutions to the click problem:

   a) copy your sounds to the **Ext** drive and work on there.

   b) remove the Zip disk while your are working on the **Ext** drive (its presence may interrupt the file writing proces).

   c) try working only on the Zip disk and see if clicks occur.

6) When all of the clicks have been removed, make several backup copies and proceed with the assignment.

7) Open "YI.Assign.5" or some copy of it and highlight the first sound and all of the silence which follows it. Pull down the **DSP** menu and select either **Graphic EQ** or **Parametric EQ**.

4) If you select **Graphic EQ**:

a) a graphic EQ window such as the one below will open:

```
┌──────────────────── Programmable Graphic EQ ──────────────────┐
│                                                                │
│                                              ○ Left            │
│   Soundfile:    │ Untitled        │   Channel(s):  ○ Right     │
│                                              ○ Both            │
│                                                                │
│    ▭                                                           │
│    ┃  ┌───┬───┬───┬───┬───┬───┬───┬───┬───┬───┐               │
│    ┃  │   │   │   │   │   │   │   │   │   │   │               │
│    ┃  │   │   │   │   │   │   │   │   │   │   │               │
│    ┃  ├───┼───┼───┼───┼───┼───┼───┼───┼───┼───┤               │
│    ┃  │   │   │   │   │   │   │   │   │   │   │               │
│    ┃  │   │   │   │   │   │   │   │   │   │   │               │
│    ┃  └───┴───┴───┴───┴───┴───┴───┴───┴───┴───┘               │
│                                                                │
│  0.0 dB   0 dB   0 dB  0 dB  0 dB  0 dB  0 dB  0 dB  0 dB  0 dB  0 dB │
│                                                                │
│   Vol    62   125   187   250   325   500   750   1.00  2.00  3.00 │
│                                              ☐ Use for playback│
│  ( Preview )  (  Flat  ) ( Process ) ( Settings ) ☐ Bypass     │
└────────────────────────────────────────────────────────────────┘
```
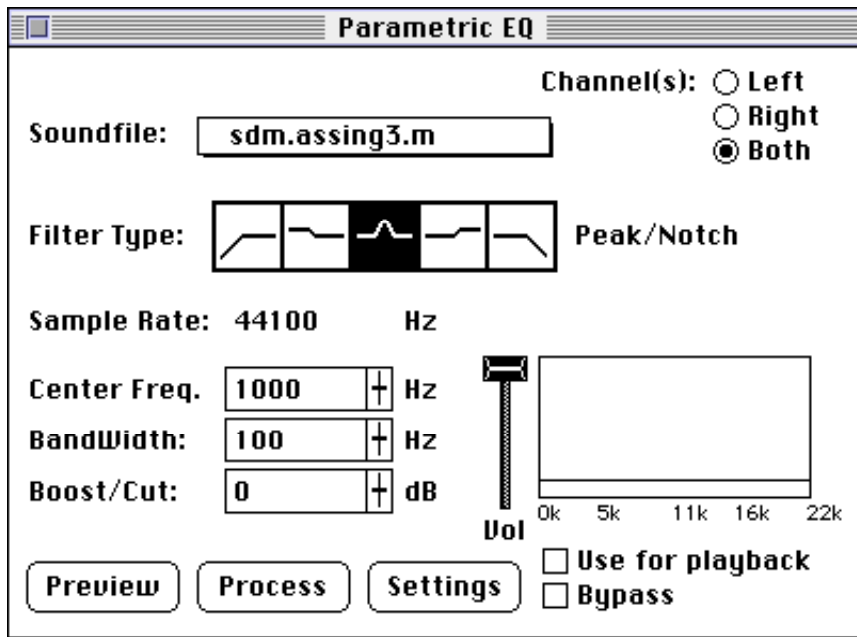
b) click on the **preview** button on the bottom of the screen to hear your sound being looped

c) grab any EQ fader to boost or cut the amplitude of any frequency band. Before you boost any frequency above the 0.0dB level, make sure you pull down the **vol** fader on the left so that you don't clip the sound at that frequency. Do this for as many frequency bands as you like.

d) when you are satisfied with the sound, click on the **process** button on the bottom of the screen to permanently modify the sound. Click **OK** on the dialogue window that asks if you want to change the soundfile.

5) If you select **Parametric EQ**:

a) a parametric EQ window such as the one below will open:

```
┌─────────────────────────────────────────────────────────┐
│ ▣      ═══════════ Parametric EQ ═══════════             │
├─────────────────────────────────────────────────────────┤
│                          Channel(s):  ○ Left             │
│                                       ○ Right            │
│     Soundfile:  ┌──────────────────┐  ◉ Both             │
│                 │  sdm.assing3.m   │                     │
│                 └──────────────────┘                     │
│                 ┌───┬───┬───┬───┬───┐                    │
│     Filter Type:│ ┌─│─┐ │ ∧ │ ┌─│─┐ │   Peak/Notch       │
│                 └───┴───┴───┴───┴───┘                    │
│                                                          │
│     Sample Rate:  44100        Hz                        │
│                                    ┌───────────────────┐ │
│     Center Freq. │1000  │╪│ Hz   ▭ │                   │ │
│                                  │  │                   │ │
│     BandWidth:   │100   │╪│ Hz   │  │                   │ │
│                                  │  │                   │ │
│     Boost/Cut:   │0     │╪│ dB   │  │                   │ │
│                                    └───────────────────┘ │
│                                    0k  5k  11k 16k  22k  │
│                                  Vol                     │
│     ┌────────┐ ┌─────────┐ ┌──────────┐ □ Use for playback│
│     │ Preview│ │ Process │ │ Settings │ □ Bypass         │
│     └────────┘ └─────────┘ └──────────┘                  │
└─────────────────────────────────────────────────────────┘
```

b) click on the **preview** button on the bottom of the screen to hear your sound being looped

c) click on any **filter type** (from left to right: **High Pass**, **Low-shelf**, **Band Pass/Reject** (also called **peak/notch**), **High-shelf**, **Low-pass**).

d) determine amount of **Center Freq.**, **Bandwidth** (if available), and **Boost/Cut** using one of the following methods:

      i) highlight the appropriate box and type in the desired value

      ii) grab the small fader on the right of the box and move it up or down to the desired value

e) before you boost the level of any frequency region, pull down the **Vol** fader on the right to prevent clipping in that region.

f) when you are satisfied with the sound, click on the **process** button on the bottom of the screen to permanently modify the sound. Click **OK** on the dialogue window that asks if you want to change the soundfile.

6) Repeat steps 4-5 for each sound in "YI.Assign.5".

7) Grading criteria: clean, click-free sounds, with no high frequency buzzes or low-frequency rumbles or
    mush.