025:251 COMPOSITION: ELECTRONIC MEDIA II
Assignment 2
Due Wed. Feb. 17

Purpose: To import digital audio into MIDI sequences.

1) Patch Studio as follows:

AM III Out 1	-->	Mackie In 1
AM III Out 2	-->	Mackie In 1
Mac Out 1	-->	Mackie In 3
Mac Out 2	-->	Mackie In 4

   a) Digital audio soundfiles will play from the Audiomedia card.

   b) CyberSynth will play from the Mac outs.

   c) To create stable mixes, select one permanent setting for faders (and trim) and write it down.

2) Create a workspace on the Macintosh Scratch Disk as follows:

   a) On Moog.Scratch, create a new folder entitled "YI.ScratchMaster".

   b) Copy into this folder any MIDI sequences and digital audio files you will use.

   c) While using **Vision**: NEVER open any files from any other folder or disk:
   NEVER save any files to any other folder or disk.

   d) You have been warned.

3) Launch **Vision** and open "YI.Assign.1" from "YI.ScratchMaster".

4) Set up **Vision** for Digital Audio as follows:

   a) Select **Audio>Hardware Setup>Audiomedia III.**

   b) Select **Audio>Audio System>DAE.**

   c) Select **Audio>Waveform Height>Automatic.**

   d) Select **Audio>Waveform Display>Fast.**

   e) Check **Audio>Show Audio Events Names.**

   f) Check **Audio>Mix Audio on Capture.**

5) Create a new track in "YI.Assign.1" as follows:

   a) In the uppermost empty track of the **Tracks Window**, click on the empty "Track" column.

b) Change the name of this track to "Audio Track 1".

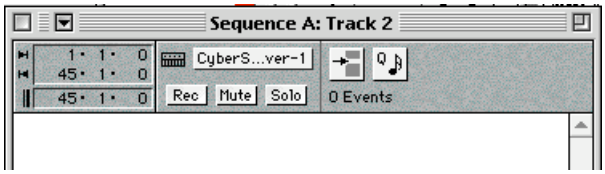
c) Do not change the "Instrument" or "Patch" settings yet.

6) Open "Audio Track 1" in the **List Window** as follows:

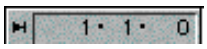
a) In the **Tracks Window**, select "Audio Track 1".

b) In the lower right corner of the **Control Panel**, click on the **List Window** icon  .

c) A window like the one below will appear:



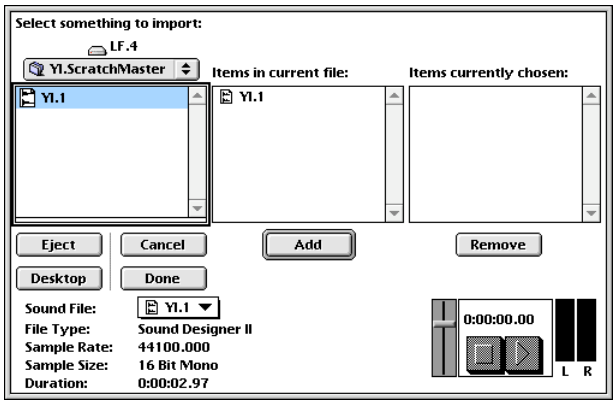
7) Import a digital audio file "YI.1" into the **List Window** as follows:

a) Set the edit point in the upper left hand corner to  or any point you wish.

b) Click and hold on the **Events** icon  in the upper right corner to access the **Events** pop-up menu.

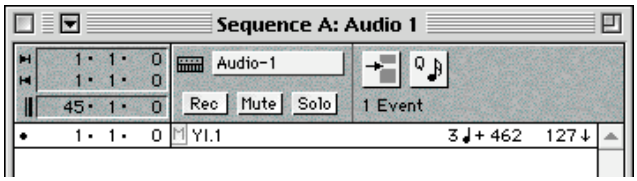
c) From the **Events** pop-up menu, select "Digital Audio".

d) An **import** dialog box like the one below will appear:



e) Import "YI.1" as follows:
1) Select "YI.1"
2) Click on **Add**
3) Click on **Done**.

f) The **List Window** will appear like the one below:



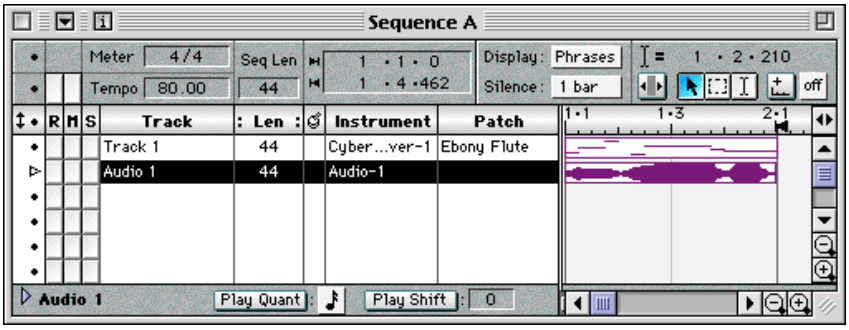
7) The **List Window** now shows the following information:

a) The **Instrument** is now displayed as "Audio-1".
b) "YI.1" starts at 1-1-0.
c) "YI.1" has a duration of 3 quarter notes + 462 units (as determined by the tempo of "YI.Assign.1).
d) "YI.1" has an overall volume level of 127, shown as a **velocity** value.
e) The above data may be edited.

8) To create more Audio Tracks, follow steps 5-7, setting each new audio track to Audio-2, Audio-3, etc.

There is a limit of simultaneous audio tracks that can play. Stuttering occurs when this limit is reached.

9) The **Tracks Window** now appears like the one below:



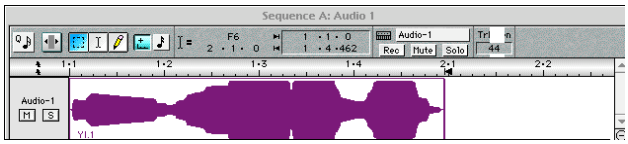
a) The **Track Overview** display shows the MIDI data in Track 1 and the Audio data in Audio Track 1.

b) Both types of data can be moved, copy, cut, and pasted in this window.

c) Both types of data can be muted or soloed.

10)To view audio and notation files at the same time, do the following:

a) In the **Tracks Window** select "Audio Track 1".
b) Click on the **Graphic Window** icon in the lower right corner of the **control panel**.
c) A **Graphic Window** like the one below will appear:



d) Use the scroll and zoom controls so that window displays only the waveform.

e) The waveform data can be edited and the audio processed with commands in the **DSP** menu.

f) Return to the **Tracks Window** and select "Track 1" or any other MIDI tracks.

g) Open "Track 1" in the **Notation Window.**

h) Move the "Audio Track 1" **Graphic Window** and the "Track 1" **Notation Window** so that the audio is positioned above the notation.

i) Use scroll and zoom controls in both windows so that data is synchronized.

11) To control the continuous **volume** of audio data, do the following:

a) In the Audio Track 1 **Graphic Window**, turn off the **cursor quantize** toggle 

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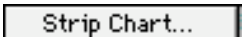
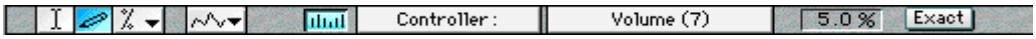
b) Open the **Strip Chart** by clicking on the strip chart icon 

on the bottom of the window and select **volume (7)** from the pop-up menu.

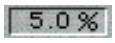
c) The following info will appear on the bottom of the window:



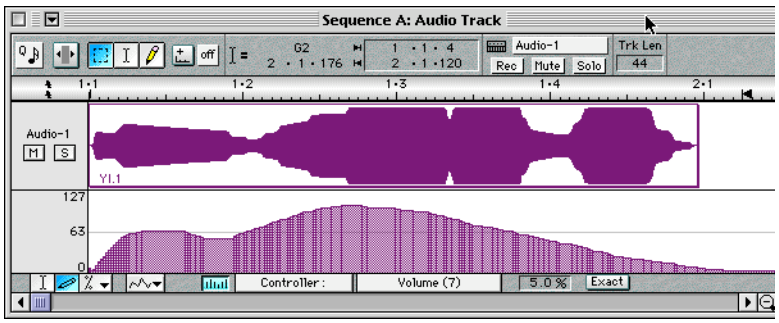
Make sure that you select the following:

Pencil icon 

Free icon 

Enter 5% in display 

d) With the pencil, draw the volume change you wish to create, as shown below:



12) To control the continuous **pan** of audio data, follow Step 11 above, selecting **pan (10)** from the strip chart pop-up menu.

13) Consult the **Vision** MIDI Reference Manual for more info on sequencing and editing MIDI data. Consult the **Vision** Audio Reference Manual for more info on editing, mixing, and processing audio data. For the present, just concentrate on import, synchronization, volume control and pan control of audio data.

14) Create a ca. 15" compositional fragment using **CyberSynth** and digital audio (in mono for now). Place "YI.ScratchMaster" in an Assignment 2 folder on the scratch disk before class on Wednesday, Feb. 17.