

ECS614U/ECS749P

Programming MIDI Using the Piano Roll

The purpose of this worksheet is to learn how to edit and create MIDI notes in Logic using the Piano Roll.

- Open a new Logic project and choose to have 1 software instrument track.
- Click on the Media button in the top right corner, and select the Library tab. The library contains all of the synthesised or sampled instruments that can be used with software instruments. Select: **Drums & Percussion** → **Acoustic Drum Kits** → **Studio Tight Kit**.
- In the arrange window, hold **CTRL** and click the mouse button, and select **Create Empty MIDI Region**. You can add MIDI notes to this region in order to play the software instrument. Drag this region to the start of the song if not already there and make it 2 bars in length as in Figure 1.
- Create a new audio track by selecting: **Track** → **New**, in the Arrange Window. Drag the audio file entitled *DrumBeat.wav* onto this track. Your task is to recreate this drum track using the software instrument.
- Double click on the empty MIDI region to open the Piano Roll. In the top right corner of this window you will see an arrow and a pencil as in Figure 2. These are the active controls. The first is activated by a mouse click and the second is activated by **CMD** and mouse click. The arrow is used to move and edit MIDI events and the pencil is used to draw new events. By clicking on the drop down menu you can reassign these controls.
- The drum beat contains 4 different notes:
 - Bass drum: **C1**.
 - Snare drum: **D1**.
 - Hi-hats: **F#1**.
 - Crash cymbal: **C#2**.
- Add the relevant notes to the empty midi track to match the drum beat. You will need to change the velocity (volume) of some of the drum hits. You can switch either the arrow or pencil to the volume control using the drop down menu.
- The Logic project *Writing_MIDI* contains the correct MIDI. If you need a hint before looking at this, open the image *DrumBeat.tiff*.

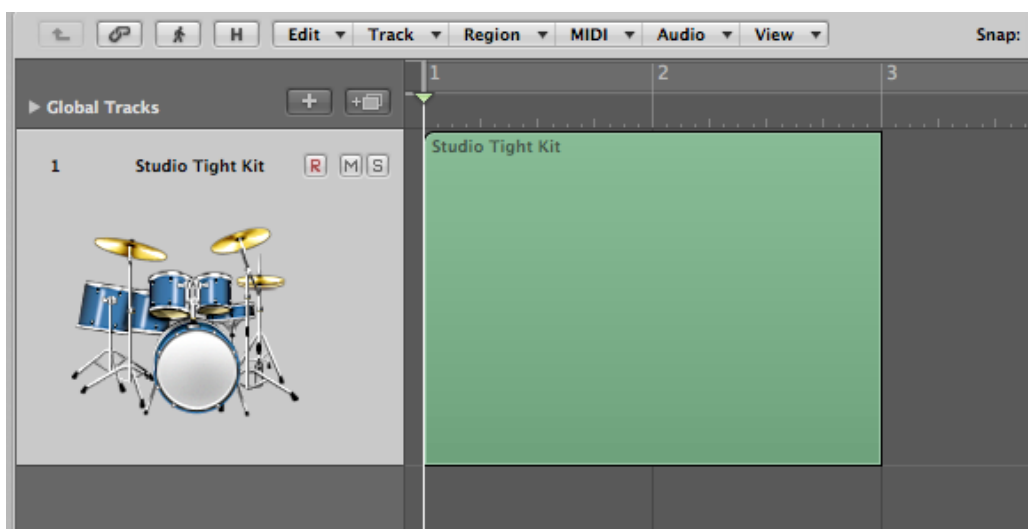


Figure 1: An empty MIDI region

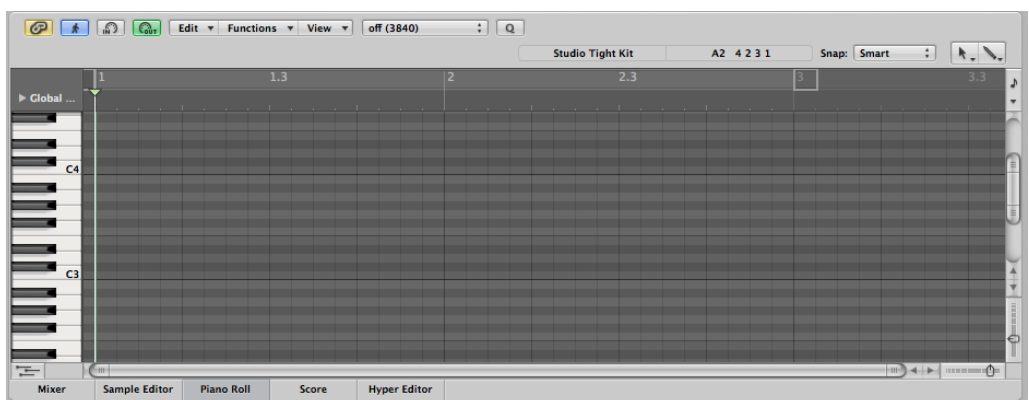


Figure 2: The Piano Roll