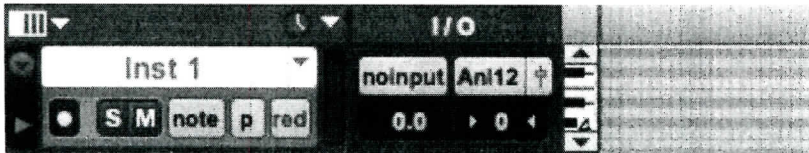


**Composition: Electronic Media II**  
**MUS 4251:0001**  
**Spring 2016**

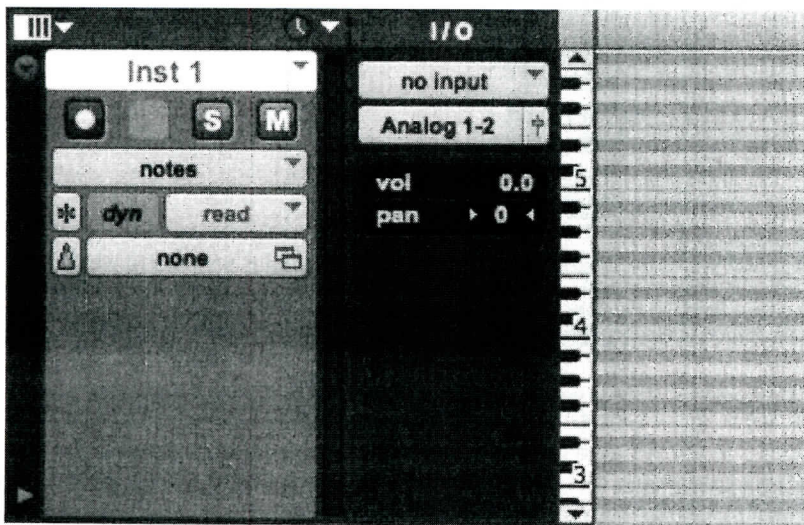
1. The purpose of this handout is to demonstrate how to create and edit an instrument track in Pro Tools.
2. How to create an instrument track:
  - i. Under the Track Menu, select “new”.
  - ii. A new window pops up. Leave the first drop down menu set to “mono”.
  - iii. In the second drop down menu, select “Instrument Track”.



- iv. Click on the “Create” button, and your new instrument track will appear in the edit window.
3. Instrument tracks arrange pitch and rhythm as a piano roll. Notice the vertical piano keyboard located on the left side of the edit window near the track information.



- i. Every C key on the keyboard is labeled with an appropriate number (0-9) indicating where on the piano the key is located. The higher the number, the higher the pitch will be. If you want to see a different range of the piano keyboard, use the scroll buttons located on the bottom and top of the piano keyboard. If you want to see more of the piano roll, you can increase the track height under the Track options menu.



- ii. To change the size of the keyboard (and the height of the notes in the track) click on the MIDI zoom out and MIDI zoom in buttons located on the far right side of the instrument track.

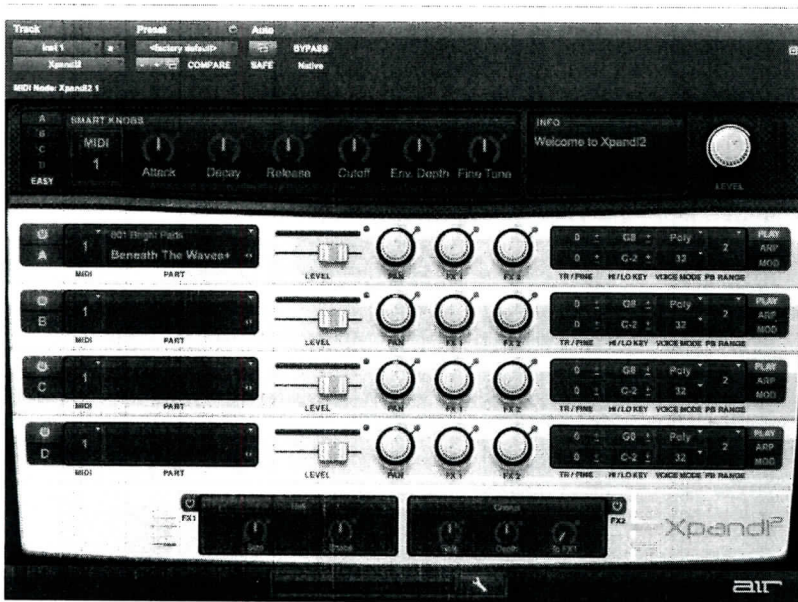


4. How to create an insert:

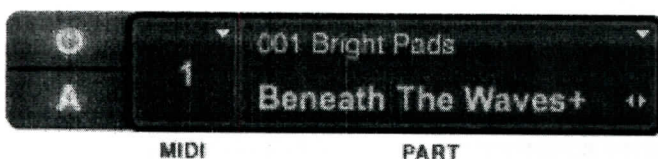
- i. In order for your instrument track to make sound during playback, you need to create an insert and select an appropriate plugin device that will read and interpret the information you compose in the instrument track.
- ii. Under the Edit Window View selector, select “Inserts A-E”. This will add five empty slots for inserts as shown below.



- iii. Click on the top insert and navigate to plugin→Instrument→Xpand!2.
- iv. The Xpand!2 plugin window should appear as shown below.



- v. As a default setting, the instrument automatically selected is called “Beneath The Waves+”.





- vi. Clicking on the arrow pointing down on the far right corner above “Beneath The Waves+” will allow you to choose a new instrument. A drop down menu will appear giving you a variety of categories of instruments all of which have subcategories to choose from. For the purposes of this demo, select the “Brass + Woodwind” category and then the “Clarinet” subcategory, as shown below.



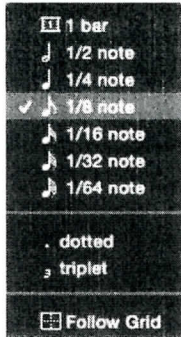
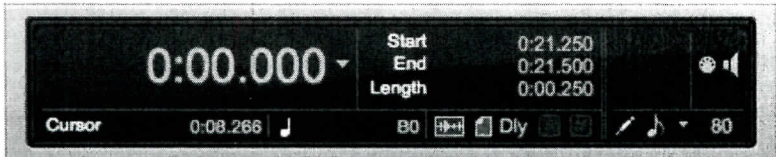
- vii. Once your instrument is selected you can close the Xpand!2 window.

5. How to input notes:

- i. Notes can be added to the track by using the pencil tool. The pencil tool can be easily selected by typing cmd + 6.

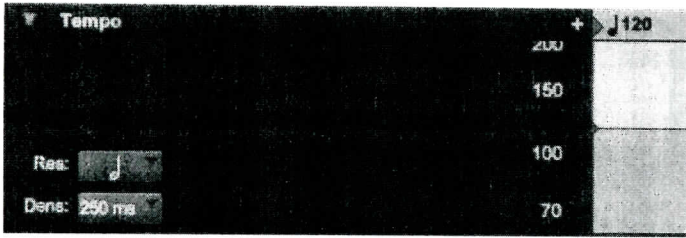


- ii. With the pencil tool selected, hover over the instrument track and notice that the mouse arrow turns into a pencil. Click on the track to add a new note. The pitch of the note depends on the height of the pencil in relation to the piano keyboard on the left.
- iii. You can change the note duration in the small drop down menu shown in the bottom right of the image below. Notice the picture of a pencil with a rhythmic note value next to it. Click on the down arrow to choose a different rhythmic value.



- iv. Notes in the edit window look like thin bars. The length of the bar reflects the duration of the note and the height of the bar reflects the pitch of the note.
- v. Once a note has been entered, you can move it by hovering over the note until the mouse cursor turns into a pointing finger. Then, click on the note to drag it to a new location.
- vi. **If you would like your notes to “snap” to the nearest beat, division, or subdivision of the beat, you can change the edit window to GRID mode instead of SLIP. This will be very useful if you want to import your instrument track into notation software such as Finale or Sibelius (explained below).**
- vii. If you would like to highlight a longer passage of notes, simply enter into the smart tool (cmd + 7). Notice when you hover over the instrument track the mouse cursor turns into a cross. Click and drag to highlight the notes you would like to select. Once the notes are selected you can click and drag one of the notes but the entire passage will follow. This is an easy way to transpose a passage.
- viii. This is also an easy way to copy and paste multiple notes. Highlight the passage you want, copy it, then click the mouse in another area of the edit window and then paste.

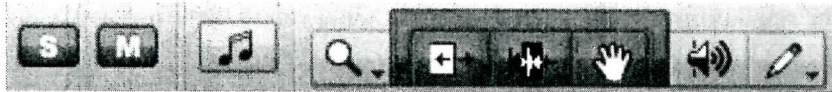
6. The tempo at which the music is played back can be changed. Click on the Tempo Ruler drop down menu located above the track name. By clicking and dragging on the small red triangle, you can change the starting tempo. Notice in the example below that the tempo is set to quarter note equals 120 bpm. This is the default setting.



7. If you would like to add a tempo change to the music, simply use the pencil tool (cmd + 6) and add edit points to the tempo automation line.
8. If you would like to see the notes you have written in traditional musical notation:
- In the bottom left corner of the edit window, click on the arrow pointing up.



- A new window appears, similar to the piano roll configuration of the instrument track.
- Click on the Notation display enable tool. It looks like two sixteenth notes beamed together. This will change the piano roll to look like a musical score.



- You can click on any of the musical notes and edit them here. However, this would be much easier using more advanced notation software such as Sibelius or Finale. To do this, you need to export your instrument track as a MIDI file.
9. The notes entered on the instrument track can be exported so you can edit them in notation software such as Sibelius or Finale. For the purposes of this demo, we will use Sibelius.
- In Pro Tools, go to File→Export→MIDI.
  - Click “OK” and then name your MIDI file and choose the location of where you want to save it.
  - In the Finder, locate your MIDI file, right click (or control + click) on the file, and select “Open with”→Sibelius.
  - Sibelius will open a new score with the music from your instrument track.
10. To import your music from Sibelius back into Pro Tools:
- In Sibelius, go to File→Export→MIDI.
  - Click on the “Export” square at the bottom of the window.
  - Name your MIDI file and choose where you want to save it.
  - Next, find your saved MIDI file and drag it onto your instrument track in your Pro Tools session. Much like an audio file, the MIDI information is added to your instrument track.