

# **Music 15**

## Lecture 3

Wednesday, Jan 29, 2020

# Lecture Outline

1. Announcements
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# Announcements

- **Assignment 2**: DUE by 11:59 pm this Friday, Jan 31.
- **Extended deadline for Assignment 1**: You have until 11:59 pm tonight (Wednesday Jan 29) to turn in the assignment with no late penalty. Note: This policy applies to Assignment 1 and Wednesday sections only.
- **Assignment 3 and the Quiz**: both will refer to some reading from the course textbook. Please be sure you have access to the textbook (cited below):
  - *Writing Interactive Music for Video Games: A Composer's Guide* by Michael Sweet

# Late Policy (all sections)

- All future submissions (except the final project) will be docked 1 point for each day the submission is turned in late. For example, an Assignment 2 submission (with no errors in its content) that is turned in on Saturday will earn a score of 9/10, on Sunday it will drop to 8/10, and **on Monday it will earn no points (0/10)**.

# Section Information

- When contacting Professor Dubnov by email, please CC me in on the email so I can follow up with him.
- I plan to provide feedback on Assignment 1 next Wednesday. Your submissions will be graded sometime before then.
- As a reminder: if you need to access the computer lab in CPMC 204, please fill out this form then pay a \$10 cash deposit to the Music Department:
  - <http://music.ucsd.edu/keys>

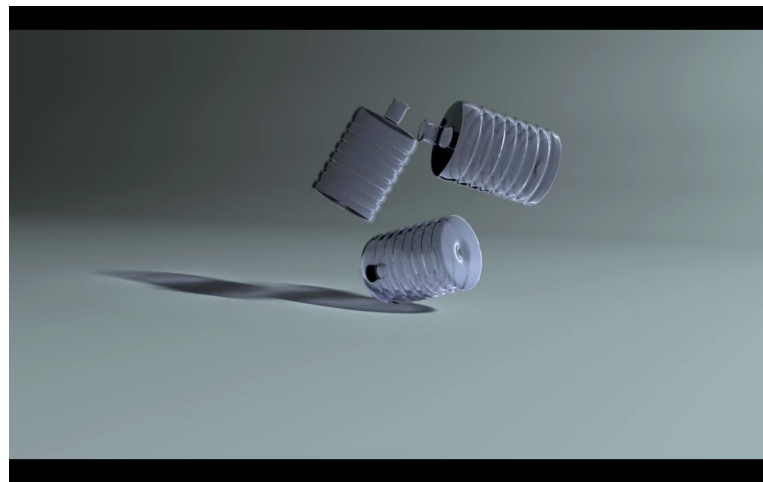
# Thoughts on this course...

- Those with strong music backgrounds: How do you get more out of this course?
  - Reach out to Professor Dubnov or other music faculty for ideas on how to take your music to the next level.
  - Challenge yourself on Assignment 2 by writing your own pieces rather than using pre-composed MIDI tracks.
  - Study the textbook by Michael Sweet and implement some of his techniques.
- To those who may be struggling with the music concepts: How do you get help?
  - Reach out to me. I will first try to clear up any confusion by email. However, if that doesn't help you or I sense that a number of you are struggling with particular concepts, I will try to hold special office hours to go over the concepts in a one-on-one or smaller group setting.
- To everyone: What gets you excited about this course?
  - As we discussed in the first lecture, this is an opportunity for you to explore art from multiple angles, including music (obviously), visual art and animation, creative writing and storytelling, acoustics/audio DSP, and computer programming. What attracts you most? Find your niche.

# Thoughts on this course...

What new video game audio technology is on the horizon? Here's an example of research that uses physics-based sound synthesis in computer animation instead of foley (i.e. recorded audio).

[Harmonic Shells: A Practical Nonlinear Sound Model for Near-Rigid Thin Shells](#)



# Terminology from Main Lecture

Melodic contour

Musical tension

Chord progressions  
(e.g. I-V-I, I-V-vi-IV)

Tempo

Notation software

Harmony

Frequency spectrum

Computer memory



# Assignment 2 Overview: A few thoughts...

- This composition does not need to base itself on (i.e. use the same musical style and techniques from) Assignment 1.
- For example, you could have a "happy" character placed in a "sad" scene, perhaps to create irony or contrast. The key is to have a justification for why you chose a specific mood for a particular scene or character in your game or narrative.
- The final project brings together all of the previous assignments into a complete package, so be sure to think about how the different compositions work together.

# Assignment 2 Overview: Download SoundFont

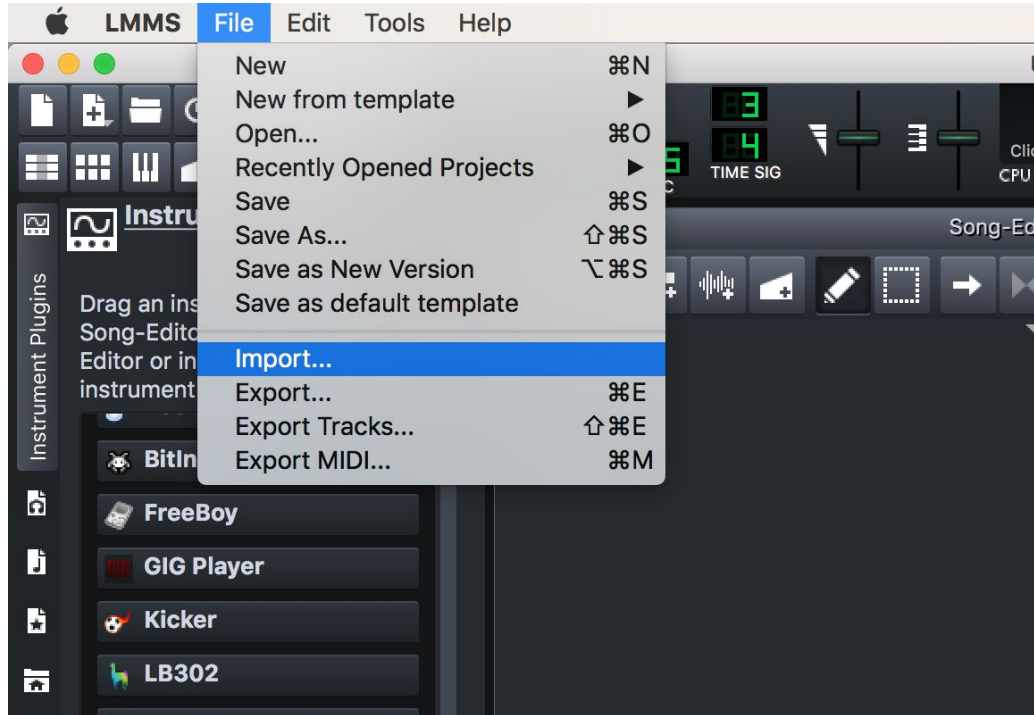
Instructions from Canvas (reposted here):

1. Download SoundFont [here](#).
2. Open LMMS and navigate to “Preferences”.
3. Click on the large folder icon on the left and then the “open file” icon in the “Default Soundfont File” box.
4. Find the file you just downloaded, select it, and save your settings.

# Assignment 2 Overview: Download MIDI files

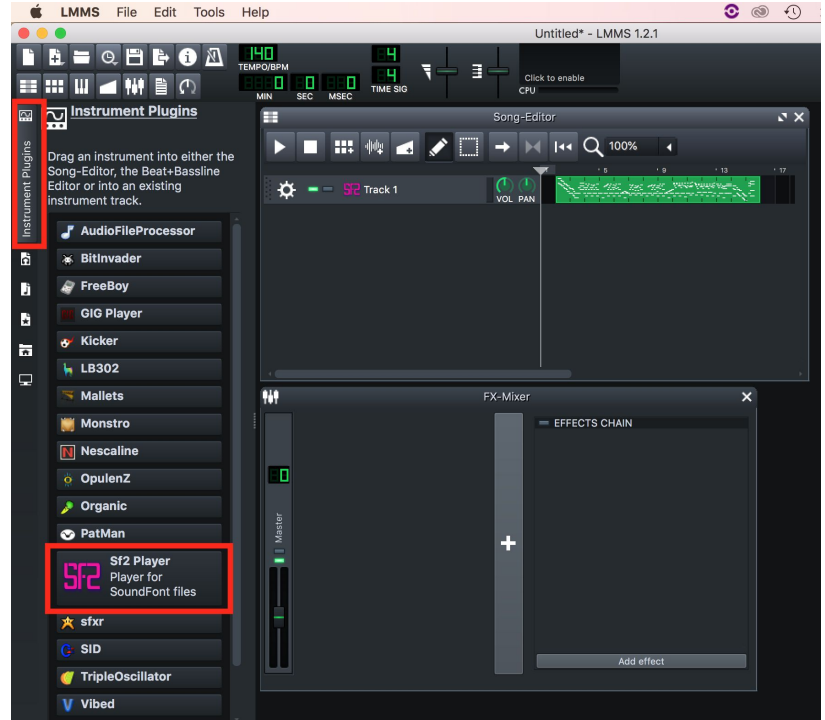
- Go here: <https://ichigos.com/>
- Download two compositions, one for each of your characters
- Import each MIDI file into LMMS (do the hero and boss separately)
- Copy the low notes into a new SoundFont track and delete them from the previous track. The goal is to have a track for the low notes and a track for the high notes (see the next few slides for more guidance).
- Change the orchestration of the MIDI file (i.e. pick a unique SoundFont instrument for each track). We would like you to explore the possibilities rather than just use the default instrument in the MIDI file.

# Assignment 2 Overview: How to import MIDI files



# Assignment 2 Overview: Creating your tracks

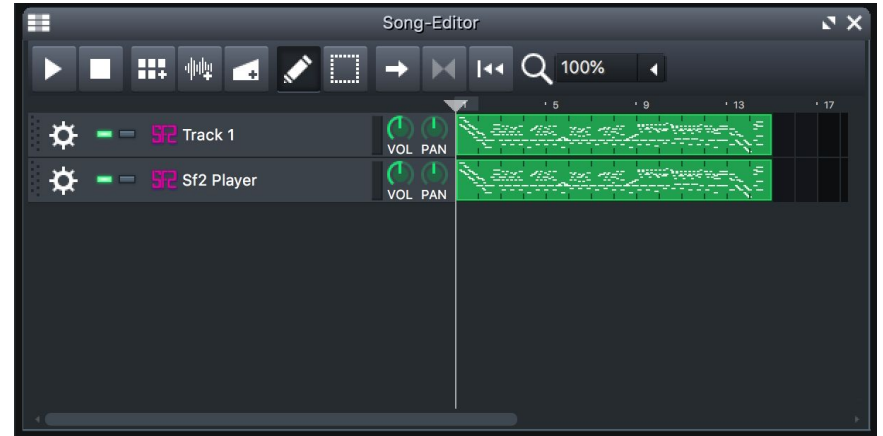
1. After importing your MIDI file, locate the Sf2 Player plugin. You can access this plugin by clicking on the "Instrument Plugins" tab in the far left bar of LMMS.



# Assignment 2 Overview: Creating your tracks

3. Drag the Sf2 Player plugin into your song editor.

4. Press cmd + click on the green box containing your MIDI notes in the song editor, then drag the copy of the notes into the new track. You should now see something that looks like the image at right.



# Assignment 2 Overview: Creating your tracks

5. Remove the high notes from track 1 and the low notes from track 2. You can use C4 on the piano roll as the boundary between high and low notes.

6. Assign different instruments to each track. You can access new instruments by first clicking on Sf2 in the song editor then clicking on the Patch icon in the Soundfont pop-up window (See image at right).



# Assignment 2 Overview

- **What should my submission look like?**
  - a. A PDF or Word document that contains answers to the form posted on Canvas.
  - b. See example submission here: <https://chadmckell.com/mus15>
- **Origin of inspiration: write your own (don't copy from example above)**
- **HERO/BOSS Pictures: choose your own (don't copy from example above)**
  - a. SAME RULE: You may download a public domain image from the internet, draw a picture by hand or using computer graphics, or use a photograph you've taken with your camera
- **Instrumentation style: SoundFont**



# Assignment 2 Overview

- Number of instruments: at least 2 (applies to HERO and BOSS)
- List of tracks/ instruments: at least 2 pairs (applies to HERO and BOSS)



# Assignment 2 Overview

- **Song length**: at least 8 bars (HERO and BOSS)
- **Tempo**: you may be stuck with what the MIDI file gives you...
- **Musical elements**: melody, harmony, or rhythm (HERO and BOSS)
  - a. You don't have to write anything for this part if you already answered this question in your list of tracks / instruments
- **Composition credit**: Where do the pieces come from? (HERO and BOSS)
  - a. In my example submission, the pieces came from Super Mario Bros 2 and 3.
- **Music submission**: Paste link to soundcloud or clyp.it (HERO and BOSS)

# **One-on-one help**

Please help someone in need if you are finished