PAT 200/500
Recording and Mixing PART 2:
Level Balance, Multing and Submixing

In PART 2 we will focus on multing, submixing and creating a solid level balance of the song "In an Ocean." A good level balance will help us later in the mixing process to determine what additional processing is needed to complete the mix and generally leads to faster and much better mixes!

LEVEL BALANCING

1. Please **load** your completed PART 1 assignment.
   Continue from your Ableton session to complete this assignment.

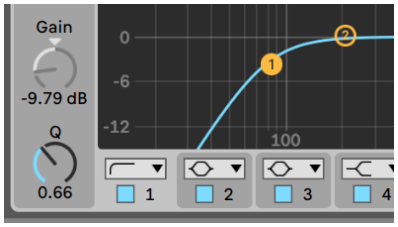
2. First go to the file menu and "Save as" to create a new project file.

3. Take some time to listen to the track a few times to familiarize yourself with the song and the individual tracks. You might need to make some adjustments to the faders to hear what each track is doing. While doing this initial listening, start to develop a game plan for your mix: **what are the most important elements? Where will you put the tracks in the stereo field? What type of effects might you use? Are there elements within the tracks that you would like to bring out?**

4. Unless you are using effects processing to create a particular sound it is best to begin with a really strong level balance before reaching for compressors, EQs, and other effects. A good level balance will help to reveal what type of effects processing is needed to improve a mix.

5. One mixing tool that can be beneficial before doing the level balance is the **high pass filter.** This can help to get rid of any low frequency "mud" and add more clarity and space in your mix. Since we are only using Ableton plugins in this assignment, you can use the EQ8.

6. As you bring in each track try inserting an EQ8, activate the High Pass filter (low cut) and adjust the cutoff frequency until you start to hear it affect the sound. **Then pull it back a bit so that you don't negatively impact the timbre of the instrument.** On some instruments, such as acoustic and electric guitars, I will often filter out some of the lower frequencies to create more space for the drums and bass. When soloed, the guitars might sound a bit thin, however, once everything is added in they fit in nicely.



(High Pass filter on electronic guitar)

(Click the triangle icon to expand the EQ8 view)

For now, let's leave the low end of the guitars in the mix - so only adjust up to the point where you begin to hear the EQ affect the sound.

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7. Now that you are familiar with the song, it is time to decide where to begin! As recommended in your reading, it can be advantageous **to start your mix at the climatic point in the music.** After you have determined this point in the music, create a Cycle range so that you can loop this section.

8. Equally important to what part of the song you begin with is your choice of what instrument to begin the mix with. As you have read, there are many different approaches that are often based on style or the particular needs of the song. In this exercise, let's begin with the drums!

9. Start by soloing the drum Overhead track and adjusting the fader so that the peaks are hitting around -12dB. Next, solo the Snare track. Pull the fader all the way down and then slowly bring it up until you feel there is a good balance between the snare and the cymbals. Try moving the fader up to the point where it is too loud and then back down a few times. Next bring in the Bass Drum and follow the same procedure.

   Sometimes it can be advantageous to begin with the bass drum, then add the snare, and finally fade in the overheads. Try pulling the drum faders down and experiment with building your drum mix this way. Consider which method produced a better result for you and apply it.

10. Now let's bring the bass guitar into the mix by bringing the fader up so it sits nicely with the drums.

11. Now bring in the acoustic guitar and experiment with the level until it feels right. You will also want to experiment with where to place it within the stereo field - adjust the pan knob to taste.

12. Since this song is largely driven by the vocal it is a good idea to get it into the mix sooner rather than later. Bring up the main vocal fader (vox lead - during the verses and vox chorus - during the choruses). Adjust the level until it sits well, but don't take to much time at this stage. As we bring in the other instruments it will most likely need some adjustment.

13. Follow the same procedure for the remaining tracks until all of the faders are up and pan knobs adjusted. When making panning decisions it is **best to balance the left and right sides so that your mix does not become lopsided.** This should take some time and will require lots of experimenting.

14. You might also find that no matter how you adjust a particular fader it never seems to sit right in the mix; sometimes it is too loud and at other times too soft. This is a good indication that further processing (dynamics) is needed. For now, just set it at a point where most of the time it is at the right level.

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MULTING

During your level balancing you may have found it difficult to keep a static fader position on certain tracks. While some of these issues might be solved using Compression or Automation (generally when the adjustments to level would be small), there are times where **multing** the track would be more effective. **Multing** is achieved by moving a part of a recording to a separate track so that you can more easily achieve a static fader position. For instance, you might split the acoustic guitar at the transition from the verse to the chorus and from the chorus to the verse and move that to another track. **Multing** also makes it easier to apply different processing settings to various parts of a recording.

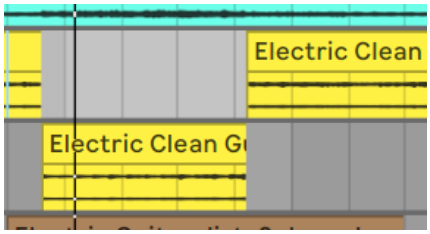
Explore **Multing** on the Acoustic Guitar track.

1. Before beginning the Multing segment of the assignment, first go to the file menu and "Save as" to create a new project file.

2. Click the Acoustic Guitar **track name** and press "command/ctrl-D." This will duplicate the track and all its plugin settings. On the new track delete all audio regions (Zoom out first, which makes it easy to see and select everything).

3. Zoom in on the original Acoustic Guitar track and split (Command/Control E) the audio region at the beginning and end of the chorus. To bypass Ableton's snap-to-grid feature, press and hold "command" or "alt."

4. Grab the chorus section and carefully move it down to the new track you just created without horizontally shifting its position.



5. Repeat for remaining choruses.
   You may want to repeat this process on other tracks to make your mixing process easier! This also opens up creative possibilities, having different parts on separate tracks allows you to more easily use processing in different ways.

6. Now that you have finished multing the acoustic guitar, you will have independent control of level and panning it for the verse and choruses. Try adjusting the balance of it between the different parts of the song to see if you can achieve a better static fader position. You might also experiment with the stereo image of it between sections - perhaps a more narrow image for the verse and a wider image for the choruses.

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SUBMIXING

Submixing can simplify the mixing process by routing tracks to a single fader that you can then use to balance against the rest of the mix. For instance, on a multi-mic'd source such as drums, you can balance the mics and then route the tracks to a single fader. Anytime you want to bring the drums up or down you only have to move one fader. You can also "bus process" the track.

Submixing the drums.

1. In the Session View, select all three drum tracks and press "command/ctrl-G." This creates a track **group**. You will see a new "Group" track. Select the track name and press "command/ctrl-R" and rename the track **DRUMBUS**.

2. Notice the **outputs** of your three drum tracks has been changed from **MASTER** to **DRUMBUS**.

This means instead of sending the drum tracks directly to the speakers, we are first sending them to the **DRUMBUS**, where they get mixed together.

Notice the **output** of the **DRUMBUS** track is set to **Master**, so your drums submix eventually makes it to the speakers.

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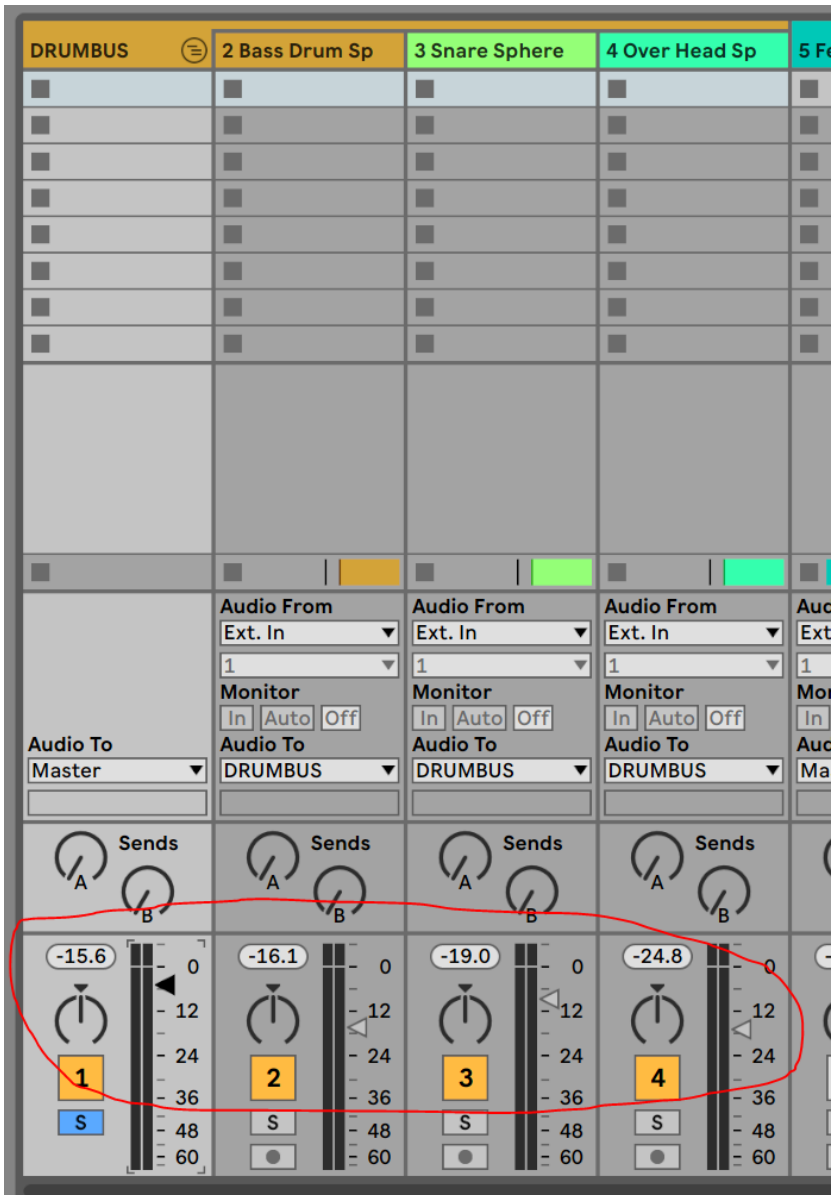
3. Now we can mix the drums using the individual drum track faders, and also control the volume of the drum mix using the fader on the **DRUMBUS**.

   Submixing is generally most useful for **multi-mic'd instruments**, however it can also be used to group like instruments together.



4. Now that you have submixed the drums - try muting or soloing the drum bus to hear how it isolates all of the drum tracks

5. Try submixing the **background** vocals. Similarly group the background vocal tracks. You could rename the group track something like "BK VOX."

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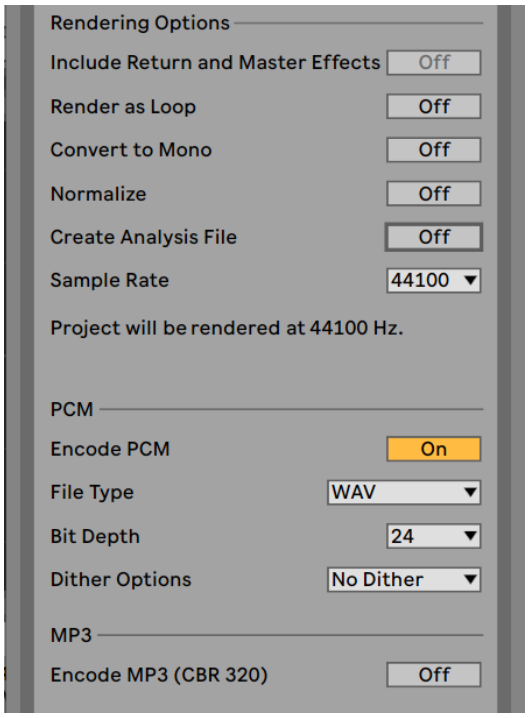
15. Now that you have explored level balancing, multing and submixing, please "bounce" your mix down to a stereo wav file to submit. Use the Ableton file menu → "Export Audio/Video" to create a **44100Khz, 24 bit bounce**, using these settings:



Please name your bounced file "*yourname*_PART2."

Before submitting, LISTEN through your ENTIRE BOUNCE file to check for any problems!

UPLOAD your wav file to the Dropbox link on the assignment page.