

## MUSTC 122 / Hands-on Assignment #2: More Signal Flow

**Objective:** The goal of this assignment is to continue your exploration of signal flow in the recording console. The assignment will be performed on the Mackie 32-8 recording console; however, as always, the techniques you exercise will translate to almost any console in the world.

**Overview:** Using the cart in room 806, you will route a microphone to track 1 of the Alesis HD24 hard disk recorder using an in-line console configuration. In addition, you will set up a separate headphone mix using auxes 3 and 4, insert a compressor, and use aux 1 to send to a reverb, the return of which will go to the headphones and speakers.

**Due date:** M/W Sections – March 15<sup>th</sup>, TTh Section – March 11<sup>th</sup>

**What you will hand in:** A one-page summary of what you accomplished and **what you learned**. Also, if you have extra time tell me what you discovered about the console beyond what I required. The summary MUST be submitted online via Ohsi.

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**Step 1:** This exercise will be performed in **groups of four**. The first thing you need to do is form a team to work with.

**Step 2:** Book an available 2 hours with the Studio E cart (in room 806). Booking is done on the SCC Studios website: <http://success.shoreline.edu/scstudio>. Choose one person from your team to fill out the form with their account, and have them put the remaining three names in the 'comments' field.

**Step 3:** Show up for your session. Missing a session is a big deal, and will result in a drop in your grade for the assignment. You must check in with the studio supervisor on duty before beginning your session. They will take your student ID as collateral. You will also need to check out a SM58 microphone, a mic cable, and a pair of headphones.

**Step 4:** Roll the cart to a good spot and plug in the long extension cord. First, turn on the power strip. Second, turn on the Mackie speakers.

**Step 5:** Make sure the console is zeroed (all buttons in the up position, all the faders down, all knobs in default position).

**Step 6:** Using an in-line configuration, route the microphone to track one of the HD24 and return it to the console for monitoring. Refer to the in-line portion of the handout for 'Hands-on Assignment #1' if you need a refresher.

### **Step 7 / The Headphone Mix:**

1. You will be making a stereo headphone mix using aux sends 3 & 4. On channel 1, press the aux 3 & 4 'pre' switch, to make the send a pre-fader send. This means the headphone mix will be a separate mix from the mix to the monitors. Also, press the 'source' switch that is associated with aux sends 3 & 4. This will make Mix-B (monitor path) the source for the sends to the headphones.
2. In the master section, confirm that the master faders for aux sends 3 & 4 are set to unity.

3. In the 'Phones 1' section of the master section, make 'Aux Send 3 /4' the source for the headphones. Turn up the 'Phones 1' level a little bit. Plug in the headphones to the 'Phones 1' jack just above the master section.
4. Meanwhile, back at channel 1, turn up aux sends 3 & 4 until you are happy with the level of the microphone in the headphones.
5. Confirm that the headphone mix is separate from the control room mix by turning down the 'Mix-B level' on channel one. Hopefully, you are still hearing the mic in the headphones. See what happens if you switch to a post-fader send.

#### **Step 8 / The Insert:**

1. In this step we will insert a compressor into the channel path. On the patchbay, locate the insert send and return pair for channel 1. Patch out of insert send 1 and into channel 1 of the DBX 266 compressor. This is labeled 'IN 1 266', and you can find it on the bottom right area of the patchbay. Now, patch out of '266 OUT 1' and back into the insert return for channel 1.
2. You will not really use any compression; we are just using the device as an example. Make sure the compressor's 'bypass' switch is not pressed. On the left side of the compressor, set the threshold, ratio, attack, and release to 12 o'clock. While talking into the mic, turn the 'output gain' of the compressor up and down. Is it turning the signal up and down? If so, you have successfully inserted the compressor, whether the lights on it are flashing or not. We will talk about compressors soon.

#### **Step 9 / The Reverb Send and Return:**

1. Now, we will use Aux 1 for a send to reverb. This will allow us to put some reverb on our vocal microphone in the monitors and the headphones. This will send to the reverb from the channel path, which is usually undesirable, but since we are already using Aux Sends 3 and 4, we have no other choice. Keep in mind, we will NOT be recording the reverb, just monitoring with it.
2. On the patch bay, find the aux send outputs in the top right area of the patchbay. Patch out of aux send 1 and into the left input of the Lexicon MPX550.
3. Patch the left and right outputs of the Lexicon MPX550 into **channel 31 and 32 tape returns**.
4. On the Lexicon MPX550, load a reverb patch and confirm that the 'mix' knob is 100% wet.
5. Set channels 31 and 32 'flip' switches to 'tape'. This will send the tape inputs to the big faders.
6. Pan channel 31 left and channel 32 right. Set the channel 31 and 32 big faders to unity.
7. Assign channels 31 and 32 to the L/R Mix by pressing the appropriate buttons in the buss assign matrices.
8. In the master section, confirm that the aux 1 master fader is set to unity.
9. Back at channel 1, turn up the aux 1 send until you have the desired amount of reverb in the monitors. Also, confirm that the 'pre' switch for aux send 1 is NOT pressed. Do you remember why?
10. Now we are hearing reverb in the monitors, hopefully. Here is a challenge for you: Send reverb to the headphones in addition to sending it to the monitors. Can you have a bunch of reverb in the headphones and none in the monitors?

**Step 10:** If you have extra time, experiment with the console as much as you can, and let me know what you figure out. The feedback I get from you in this area is part of your grade.

**Step 11:** Turn off the speakers. Turn off the Alesis HD24. Turn off the power strip, zero the console, and return the cart to the corner and place the sheet over it.